LAMPIRAN

Lampiran 1. Transkrip Wawancara

a. Narasumber Kader

Narusmber : Bu Krisnu

Jabatan : Kader

Tempat : Posyandu Puspa Kencana Cilacap Selatan

Hari/Tanggal :

Kegiatan wawancara ini menjadi salah satu proses pengumpulan data yang dibutuhkan oleh peneliti dalam perumusan masalah dan latar belakang pada penelitian yang berjudul "Implementasi Algoritme *Elbow* Dan *K-means clustering* Terhadap Nilai Status Gizi Balita Pada SIMPADU Studi Kasus: Posyandu Puspa Kencana". Kegiatan ini dilakukan dengan mengajukan beberapa pertanyaan kepada narasumber sebagai berikut:

Pewawancara	:	Selamat pagi, Ibu Kader. Terima kasih telah menyediakan waktu untuk wawancara ini.
Narasumber		Selamat pagi kembali, dengan senang hati. Silahkan jika ada yang ingin ditanyakan.
Pewawancara	:	Baik kami ingin bertanya, bagaimana pelaksanaan kegiatan posyandu puspa kencana di daerah Cilacap Selatan ini Bu?
Narasumber	:	Kegiatan posyandu ini, kami rutin melaksanakannya setiap tanggal 10 per bulan, dan kalau hari libur bisa digeser seperti dimundur atau dimajukan. Kegiatan posyandu yang dilakukan diantaranya adalah penimbangan balita, pemberian vaksin, pemberian vitamin dan imunisasi.

Pewawancara	:	Bagaimana sistem pengawasan pada kegiatan di posyandu ini?
		Apakah ada pengawasan dari Puskesmas dan Dinas Kesehatan?
Narasumber	:	Pengawasan ini dilakukan oleh puskesmas, sebab tenaga medisnya dari puskesmas dan bidan
Pewawancara	:	Berapa jumlah pengunjung yang datang pada saat kegiatan posyandu berlangsung?
Narasumber	:	Ketika pemberian vitamin dan penyuluhan, mereka itu ramai yang datang, dan tidak bisa dipastikan.
		Kurang lebih sekitar 20 orang. Dan setelah ada anak gagal gizi, kami datangi ke rumahnya untuk memberikan menu makanan.
Pewawancara	:	Bagaimana cara menentukan nilai status gizi balita?
Narasumber	:	Menentukan nilai status gizi balita bisa diukur dengan berat badan menurut umur (BB/U),
		tinggi badan menurut umur (TB/U) dan tinggi badan menurut berat badan (TB/BB).
		Saya contohkan mas, Ada balita A, yang berusia 2 tahun, memiliki berat badan sebesar 10 kilogram. Kami membandingkan berat badannya dengan kurva pertumbuhan WHO untuk usia 2 tahun, dan berat badannya berada di bawah garis tengah kurva pertumbuhan. Oleh karena itu, berdasarkan perbandingan BB/U, balita A mengalami gizi kurang.

Pewawancara	:	Kendala apa saja ya bu yang dihadapi dalam kegiatan posyandu disini?
Narasumber	:	Kendalanya banyak mas, diantaranya adalah pertama tentang pencatatan manual. Penggunaan pencatatan dapat menyebabkan kesalahan pencatatan, data yang tidak lengkap, dan kesulitan dalam pengelolaan data. Kedua tentang kualitas data. Data yang dicatat manual cenderung memiliki kualitas yang rendah, karena dapat terjadi kesalahan penulisan, penghapusan, atau ketidaklengkapan data. Ketiga kesulitan dalam mencari data. Data yang ditulis manual dalam buku catatan seringkali sulit untuk ditemukan kembali. Proses mencari data yang diperlukan bisa memakan waktu dan sulit, terutama jika buku catatan tidak rapi atau tidak terorganisir. Keempat keterbatasan analisis. Data yang dicatat manual sulit untuk diolah dan dianalisis dengan cara yang efisien. Karena dapat menghambat kemampuan Posyandu dalam membuat keputusan berdasarkan data. Kelima keterbatasan dalam Pelaporan. Pencatatan manual juga dapat menghambat kemampuan Posyandu dalam melaporkan data ke pihak yang berwenang atau melakukan pelaporan yang diperlukan untuk pengambilan kebijakan.
Pewawancara	:	Sudah ada penanganannya belum Bu?
Narasumber	:	Untuk saat ini masih dengan penanganan ringan. Misalnya pada saat pencarian data tidak hanya satu kader yang melakukan pencarian data. Kemudian penanganan lain yaitu dengan membagi tugas masing-masing setiap kader.

Pewawancara	:	Proses pengiriman laporan data posyandu ke puskesmas bagaimana Bu?
Narasumber	:	Kader setiap bulan setor ke Puskesmas dengan membawa berkasnya ke Puskesmas oleh kader sesuai pembagian tugasnya.
Pewawancara	:	Baik terimakasih atas informasi yang sudah diberikan Bu.
Narasumber	:	Ya sama-sama mas.

b. Narasumber Nutrisionis

Narusmber : Bu Eka Pragita

Jabatan : Kader

Tempat : Posyandu Puspa Kencana Cilacap Selatan

Hari/Tanggal :

Kegiatan wawancara ini menjadi salah satu proses pengumpulan data yang dibutuhkan oleh peneliti dalam perumusan masalah dan latar belakang pada penelitian yang berjudul "Implementasi Algoritme *Elbow* Dan *K-means clustering* Terhadap Nilai Status Gizi Balita Pada SIMPADU Studi Kasus: Posyandu Puspa Kencana". Kegiatan ini dilakukan dengan mengajukan beberapa pertanyaan kepada narasumber sebagai berikut:

Pewawancara	:	Selamat pagi, Ibu Nutrisionis. Terima kasih telah menyediakan waktu untuk wawancara ini.
Narasumber	:	Selamat pagi juga, dengan senang hati. Silakan, ada yang bisa saya bantu?

Pewawancara	:	Tentu, kami ingin lebih memahami peran nutrisionis dalam Posyandu. Pertama-tama, bisa Anda jelaskan apa peran Anda sebagai nutrisionis di Posyandu?
Narasumber	:	Peran saya sebagai nutrisionis di Posyandu sangat penting. Saya bertanggung jawab untuk memberikan panduan tentang gizi sehat kepada ibu dan balita yang datang ke Posyandu. Saya melakukan penilaian gizi, memberikan saran makanan yang seimbang, dan membantu dalam mendeteksi masalah gizi seperti gizi kurang atau berlebih.
Pewawancara	:	Bagaimana Anda biasanya melakukan penilaian gizi terhadap balita di Posyandu?
Narasumber	:	Saya biasanya melakukan penilaian dengan berbagai metode, seperti mengukur berat badan, tinggi badan, dan lingkar lengan atas. Selain itu, saya juga mengevaluasi perkembangan anak, pola makan mereka, dan riwayat kesehatan. Semua informasi ini membantu saya menilai status gizi mereka.
Pewawancara	:	Bagaimana cara membaca status gizi balita?
Narasumber	:	Status gizi dinilai dengan membandingkan hasil pengukuran berat badan dan panjang/tinggi badan dengan standar antropometri. Kemudian data tersebut dinormalisasi dengan rumus Z score. Tabel antropometri dan rumus Z score tersedia banyak di internet. Nanti tinggal dipahami saja mas.
Pewawancara	:	Baik Bu, pertanyaan selanjutnya apa yang anda lakukan jika anda menemukan balita yang mengalami masalah gizi, seperti gizi kurang atau berlebih?

Narasumber : Jika saya menemukan balita dengan masalah gizi, saya akan memberikan saran khusus kepada ibu atau orang tua mereka tentang pola makan yang sehat dan pemberian makanan yang tepat. Saya juga akan membantu mereka dalam merencanakan menu seimbang untuk anak-anak mereka dan memberikan informasi tentang makanan yang harus dihindari. Jika masalah gizi sangat serius, kami akan merujuk balita tersebut ke layanan medis yang lebih spesifik.

Pewawancara : Apa saran Anda untuk ibu atau orang tua dalam menjaga gizi anak-anak mereka di rumah?

Narasumber : Saran utama saya adalah memberikan makanan yang beragam dan seimbang, dengan perhatian pada asupan protein, karbohidrat, lemak, vitamin, dan mineral yang diperlukan. Hindari makanan tinggi gula dan garam. Saya juga akan mendorong ASI eksklusif selama enam bulan pertama kehidupan bayi, jika memungkinkan

Pewawancara : Terima kasih, Ibu Nutrisionis, atas informasinya. Apakah ada pesan atau nasihat terakhir yang ingin Anda sampaikan kepada ibu dan balita di Posyandu?

Narasumber : Saya ingin mengingatkan bahwa gizi yang baik sangat penting untuk pertumbuhan dan perkembangan anak. Jangan ragu untuk datang ke Posyandu dan berkonsultasi dengan kami jika Anda memiliki pertanyaan atau kekhawatiran tentang gizi anak-anak Anda. Kami di sini untuk membantu dan memberikan dukungan.

Pewawancara : Terima kasih sekali lagi atas waktunya, Ibu Nutrisionis. Semoga Anda terus memberikan

dukungan yang berharga kepada masyarakat di Posyandu ini.

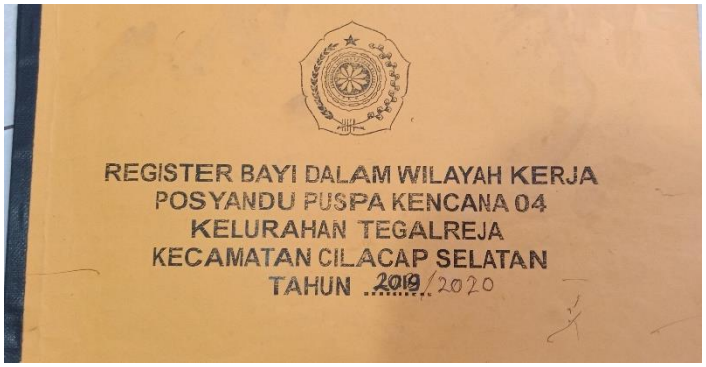
Narasumber : Terima kasih, semoga wawancara ini bermanfaat bagi semua yang mendengarnya. Jika ada yang memerlukan bantuan lebih lanjut, jangan ragu untuk menghubungi kami di Posyandu.

Lampiran 2. Dokumentasi

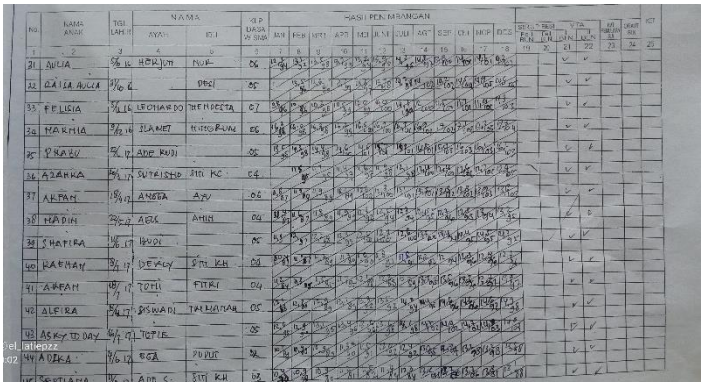
a. Observasi pengambilan data

Gambar: Wawancara dan pengambilan data dengan ibu Krisnu (kader Posyandu Puspa Kencana Kelurahan Tegalreja Kecamatan Cilacap Selatan)

Gambar: Wawancara dan pengambilan data dengan ibu Eka Pragita (Nutrisionis Puskesmas I Cilacap Selatan)



Gambar: Sampul data register bayi dalam wilayah kerja Posyandu Puspa Kencana



Gambar: Data register bayi dalam wilayah kerja Posyandu Puspa Kencana

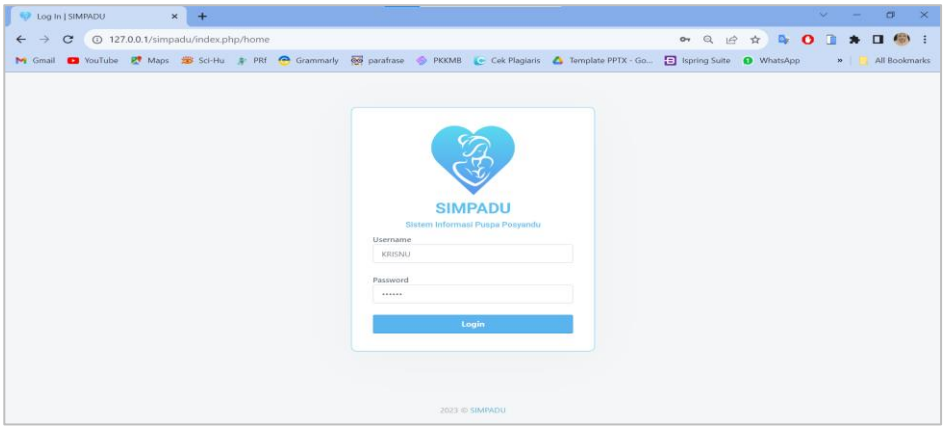
b. Sosialisasi aplikasi

Gambar: Sosialisasi SIMPADU kepada Nutrisionis

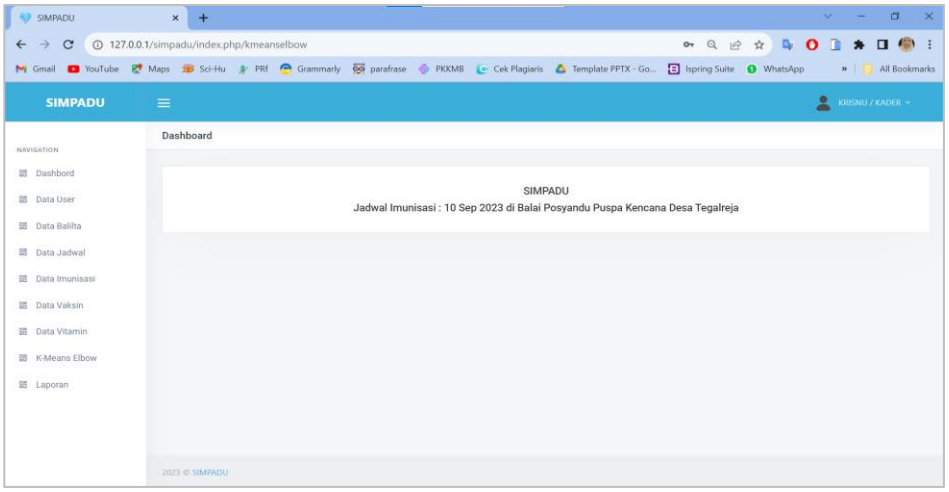
Gambar: Sosialisasi SIMPADU kepada Kader di Posyandu Puspa Kencana

Lampiran 3. Pengujian Sistem

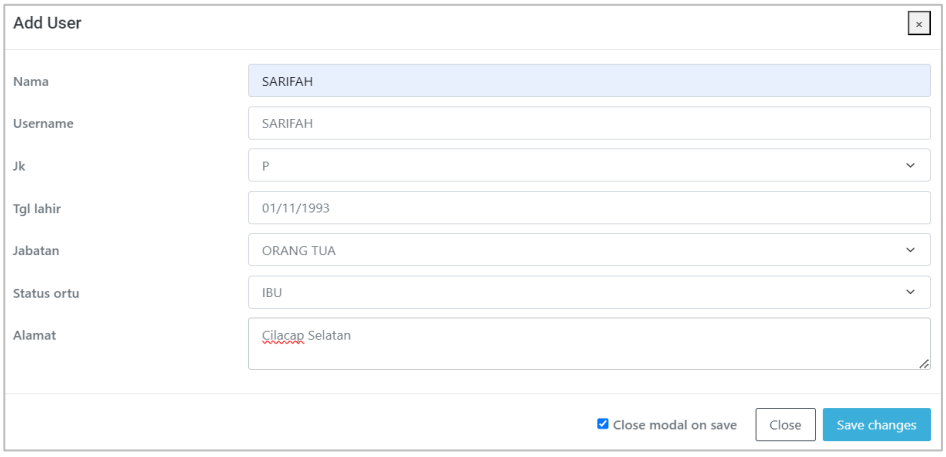
1. Pengujian menggunakan laptop pada *user* kader
   a. Halaman *Login*

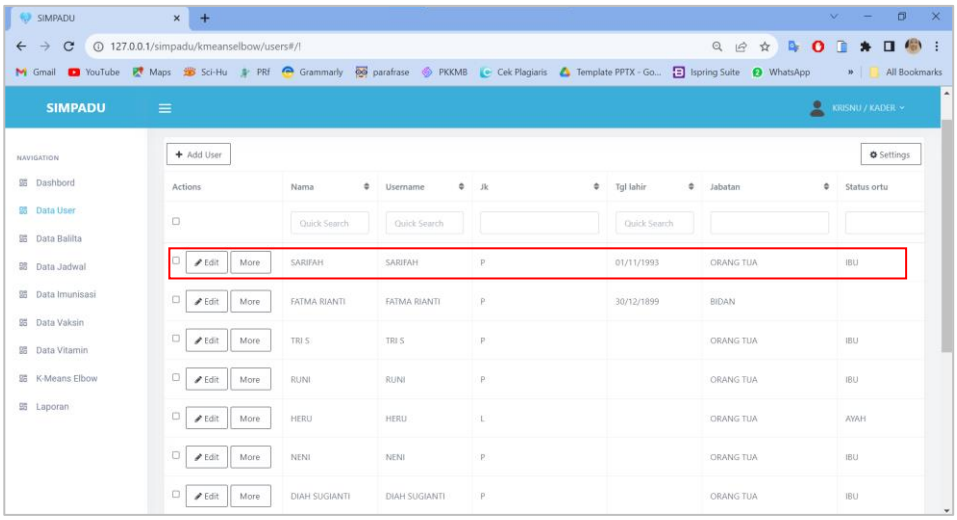


   b. Halaman Dashbord

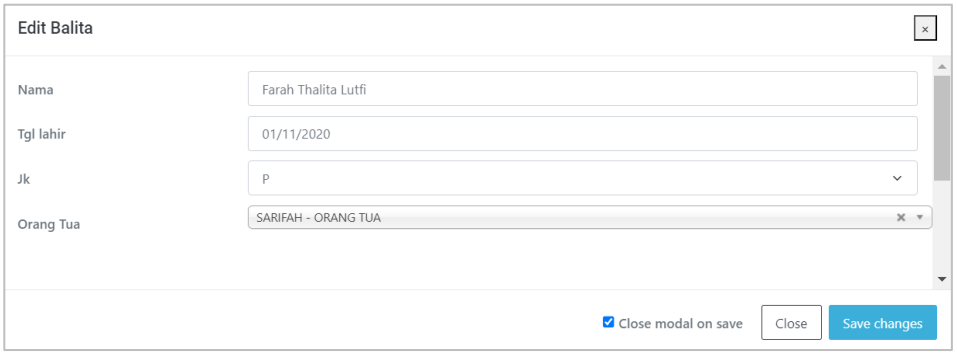


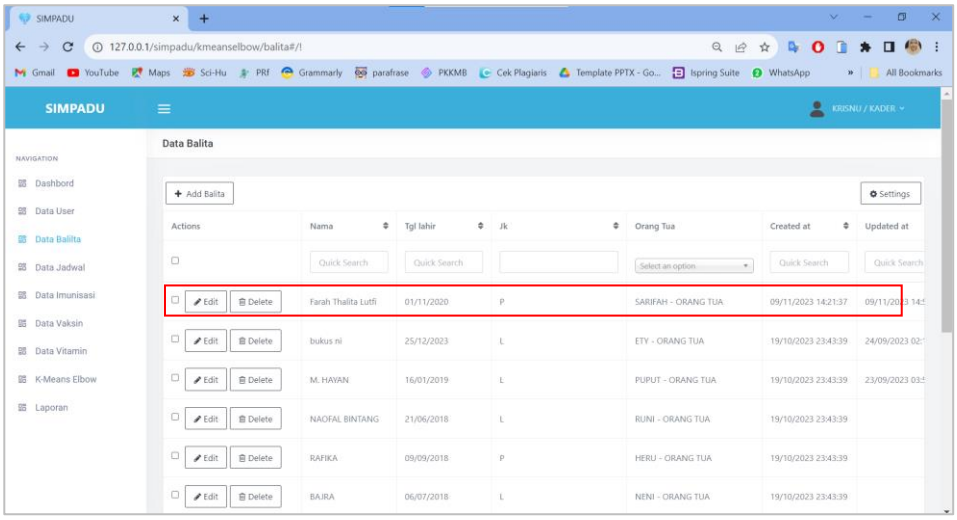
   c. Halaman Data *User*



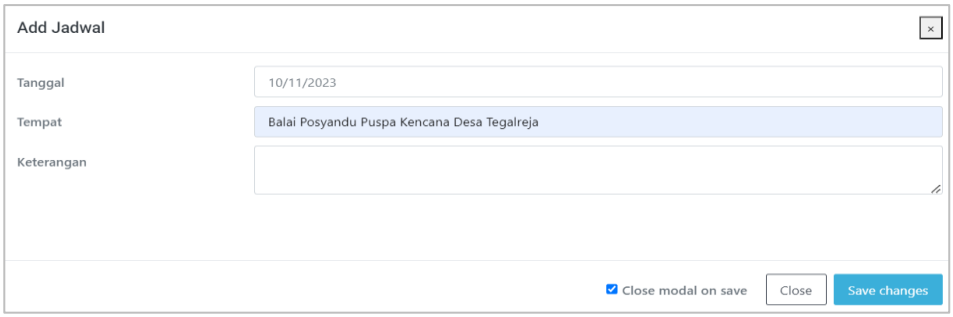


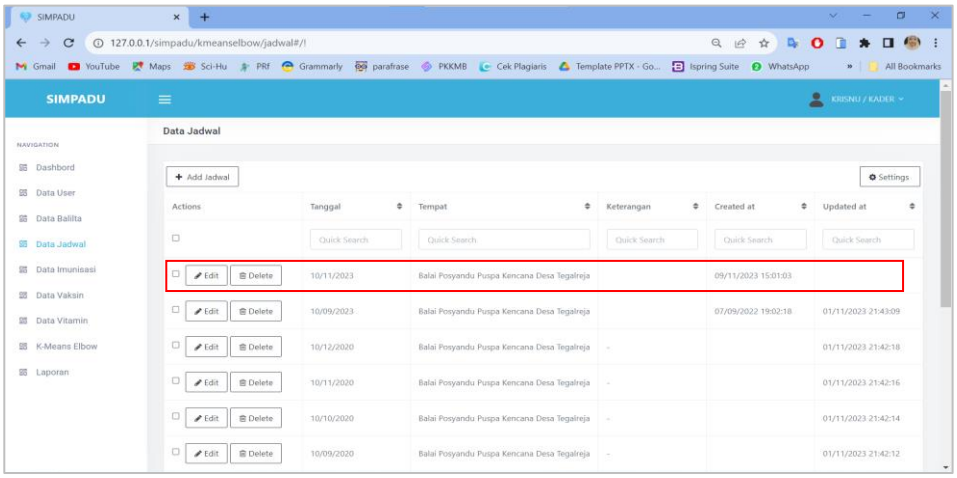
d. Halaman Data Balita



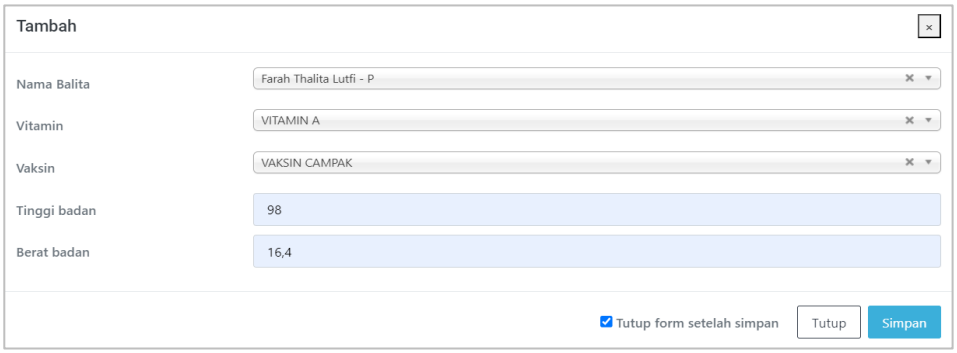


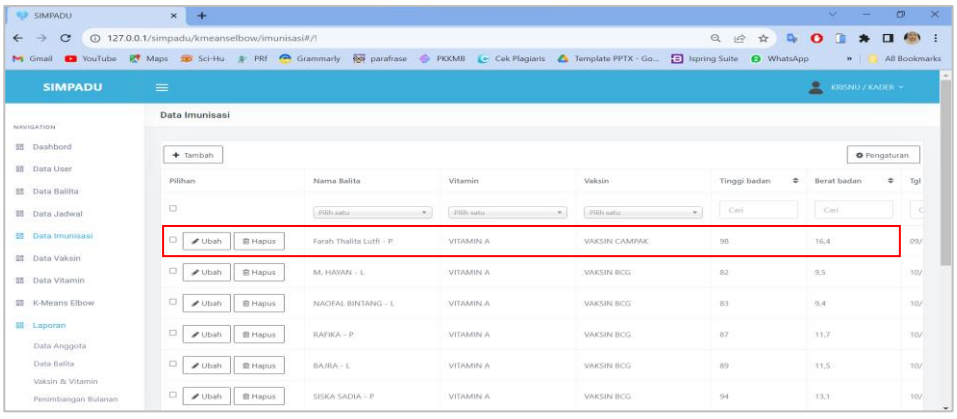
e. Halaman Data Jadwal



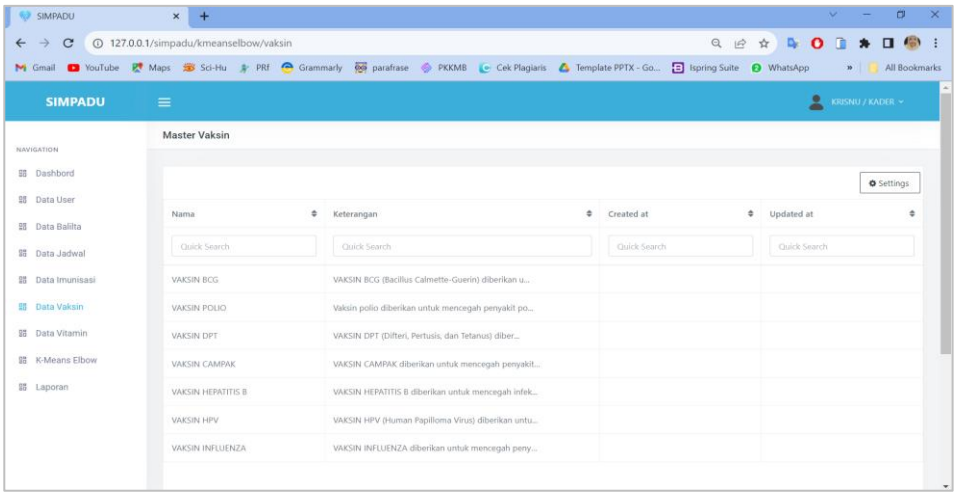


f. Halaman Data Imunisasi

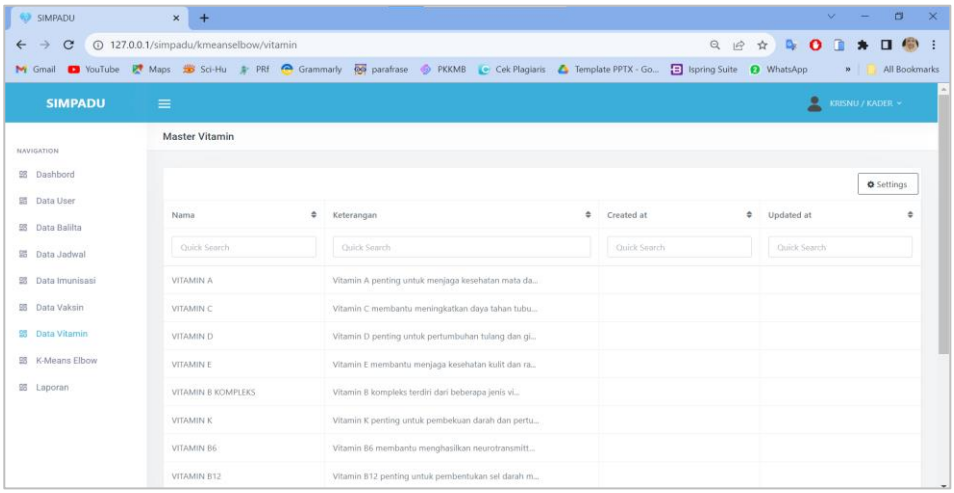




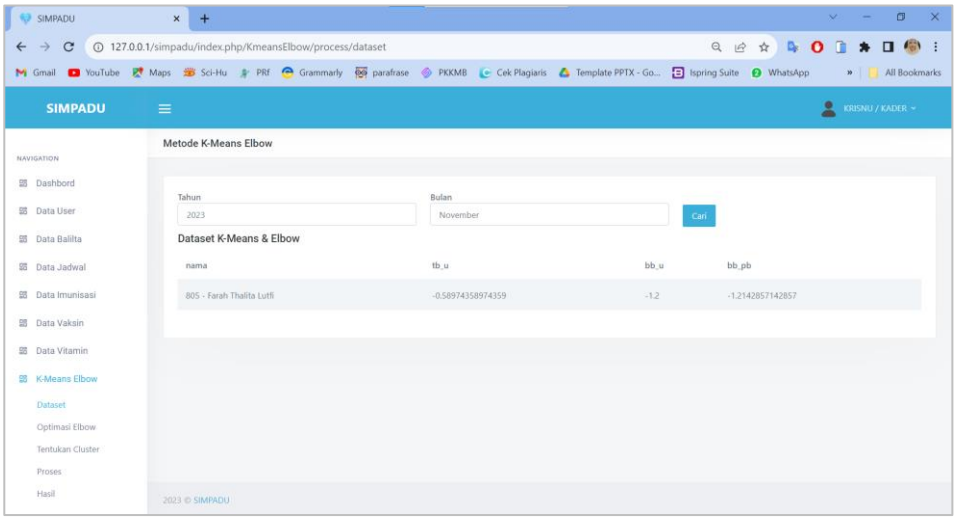
g. Halaman Data Vaksin

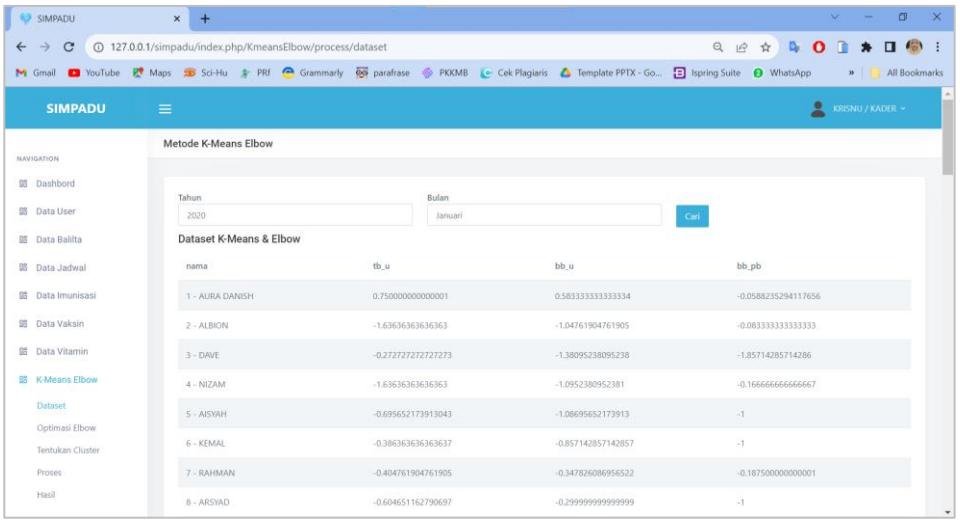


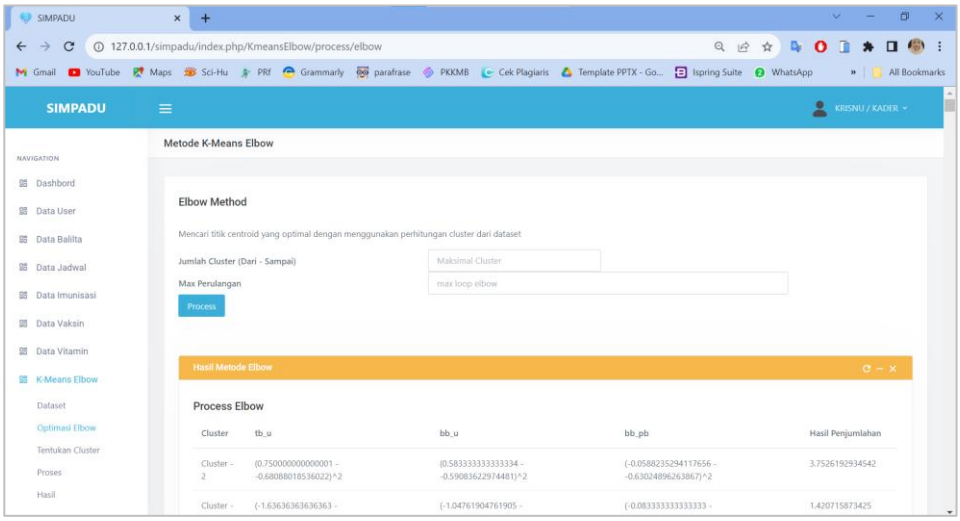
h. Halaman Data Vitamin

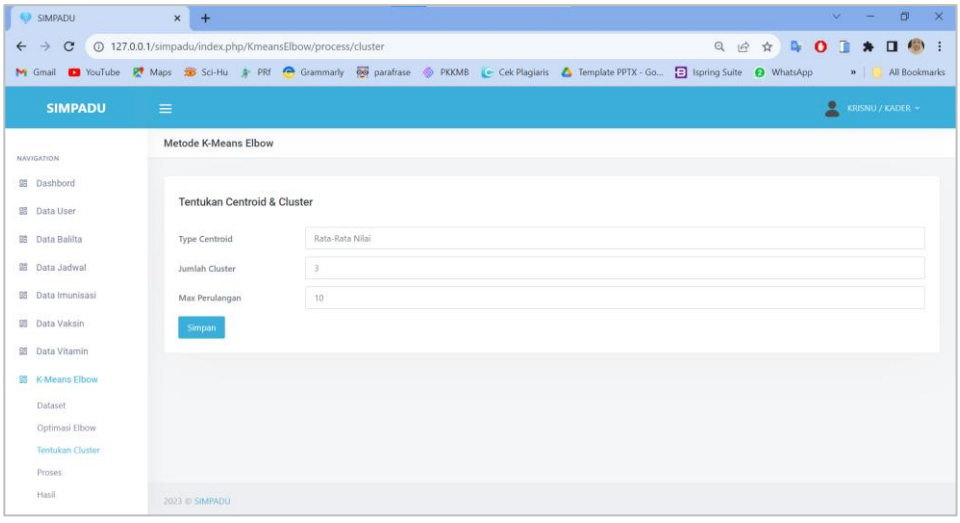


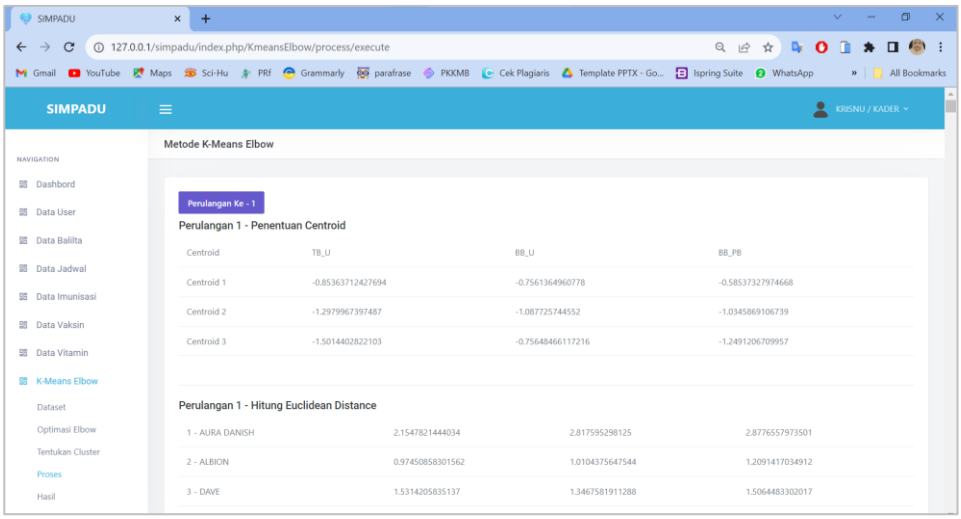
i. Halaman *K-Means Elbow*

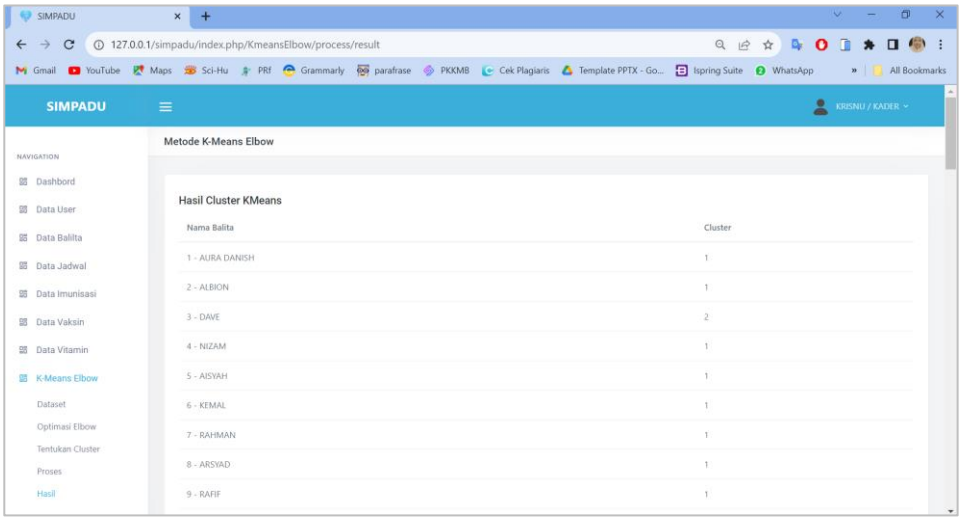



SIMPADU
127.0.0.1/simpadu/index.php/KmeansElbow/process/dataset
SIMPADU
KRISNU / KADER
Metode K-Means Elbow
NAVIGATION
Dashbord
Data User
Data Balilita
Data Jadwal
Data Imunisasi
Data Vaksin
Data Vitamin
K-Means Elbow
Dataset
Optimasi Elbow
Tentukan Cluster
Proses
Hasil
Tahun
2020
Bulan
Januari
Cari
Dataset K-Means & Elbow
nama
tb_u
bb_u
bb_pb
1 - AURA DANISH
0.750000000000001
0.5833333333333334
-0.0588235294117656
2 - ALBION
-1.63636363636363
-1.047619047619O5
-0.0833333333333333
3 - DAVE
-0.2727272727272273
-1.38095238095238
-1.85714285714286
4 - NIZAM
-1.63636363636363
-1.0952380952381
-0.1666666666666667
5 - AISYAH
-0.695652173913043
-1.08695652173913
-1
6 - KEMAL
-0.386363636363637
-0.857142857142857
-1
7 - RAHMAN
-0.404761904761905
-0.347826086956522
-0.187500000000001
8 - ARSYAD
-0.604651162790697
-0.299999999999999
-1


SIMPADU
127.0.0.1/simpadu/index.php/KmeansElbow/process/elbow
SIMPADU
KRISNU / KADER
Metode K-Means Elbow
NAVIGATION
Dashbord
Data User
Data Balilita
Data Jadwal
Data Imunisasi
Data Vaksin
Data Vitamin
K-Means Elbow
Dataset
Optimasi Elbow
Tentukan Cluster
Proses
Hasil
Elbow Method
Mencari titik centroid yang optimal dengan menggunakan perhitungan cluster dari dataset
Jumlah Cluster (Dari - Sampai)
Maksimal Cluster
Max Perulangan
max loop elbow
Process
Hasil Metode Elbow
Process Elbow
Cluster
tb_u
bb_u
bb_pb
Hasil Penjumlahan
Cluster - 2
(0.750000000000001 - -0.6808801853602 2)^2
(0.5833333333333334 - -0.5908362297 4481)^2
(-0.0588235294117656 - -0.6302489626 3867)^2
3.7526192934542
Cluster -
(-1.63636363636363 -
(-1.047619047619O5 -
(-0.0833333333333333 -
1.420715873425


SIMPADU
127.0.0.1/simpadu/index.php/KmeansElbow/process/cluster
SIMPADU
KRISNU / KADER
Metode K-Means Elbow
NAVIGATION
Dashbord
Data User
Data Balilita
Data Jadwal
Data Imunisasi
Data Vaksin
Data Vitamin
K-Means Elbow
Dataset
Optimasi Elbow
Tentukan Cluster
Proses
Hasil
Tentukan Centroid & Cluster
Type Centroid
Rata-Rata Nilai
Jumlah Cluster
3
Max Perulangan
10
Simpan
2023 © SIMPADU

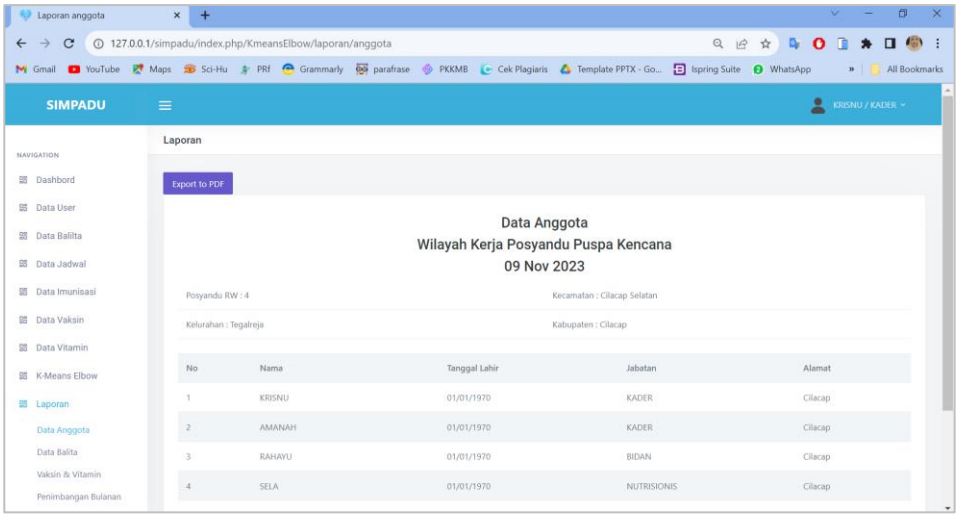


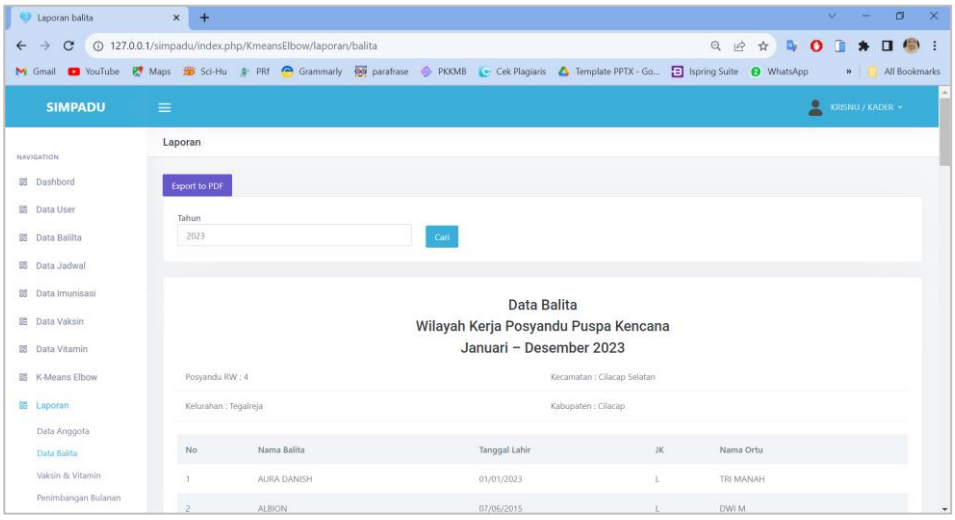


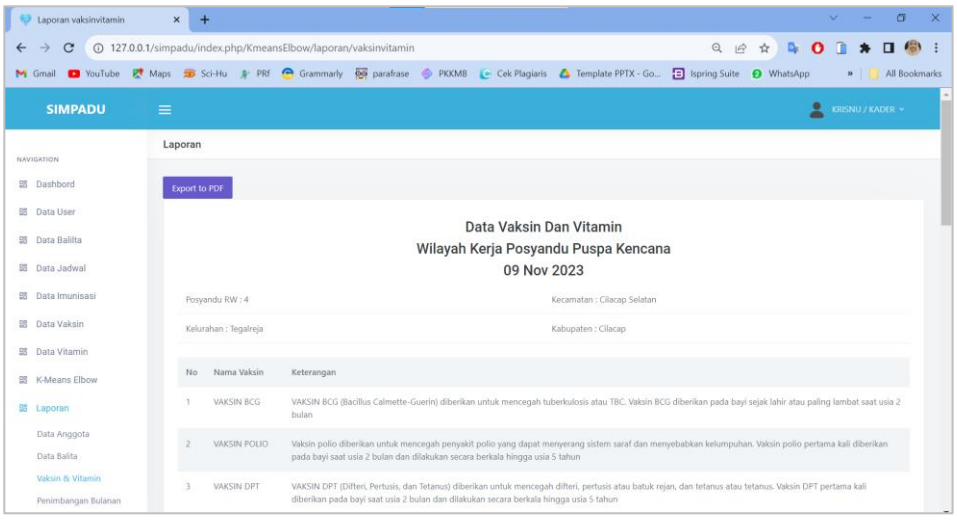
Jumlah Cluster

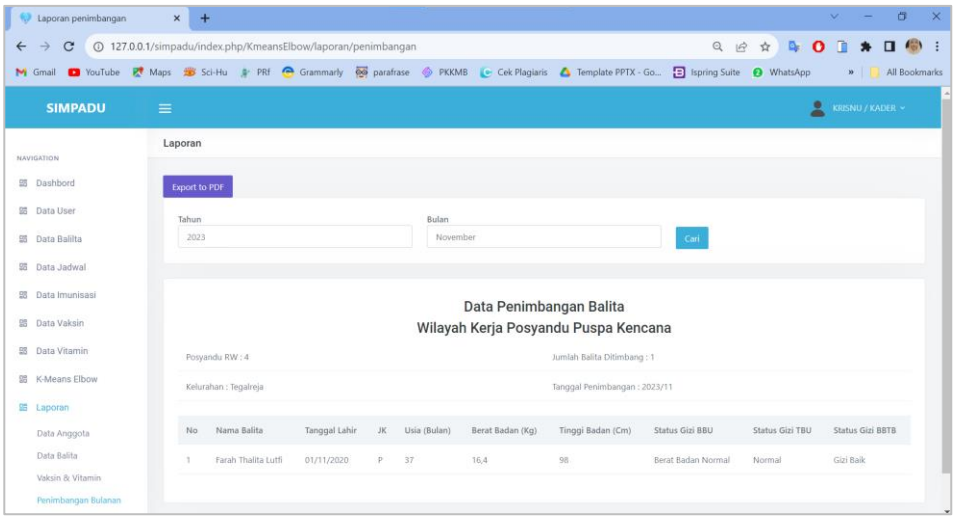
Cluster	Jumlah
1	41
2	13
3	16

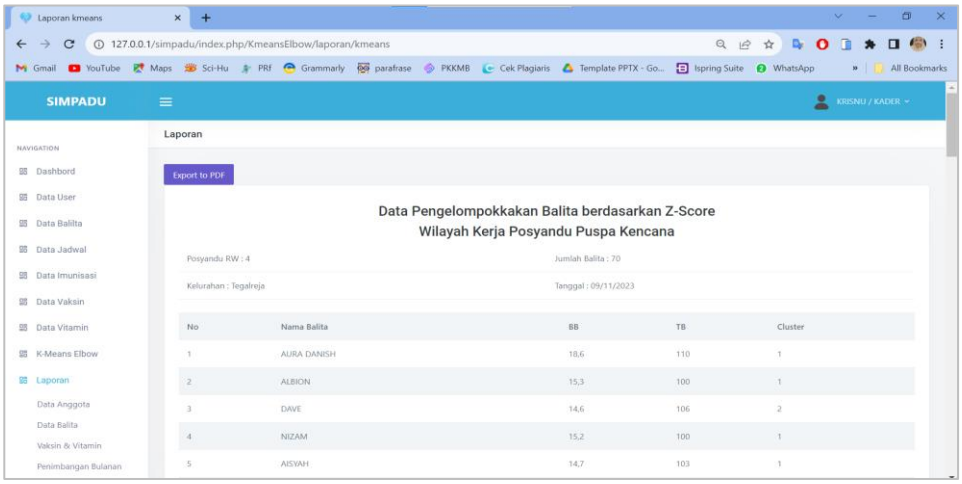
j. Halaman Laporan







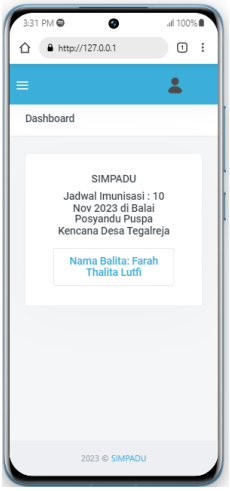




2. Pengujian menggunakan Smartphone Pada *User* Orang Tua

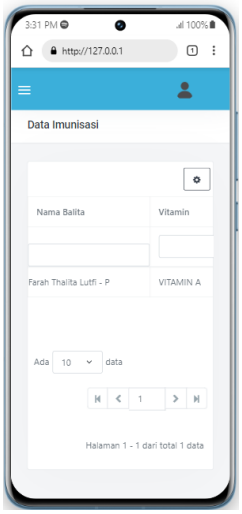
a. Halaman *Login*

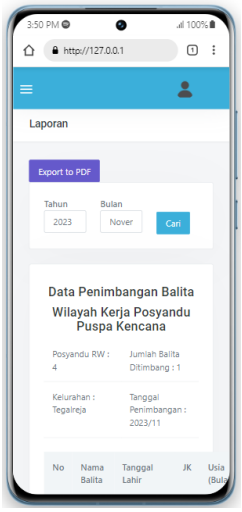
b. Halaman Dashbord



c. Halaman Data Imunisasi

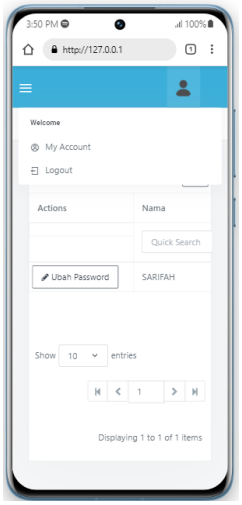
d. Halaman Penimbangan Bulanan

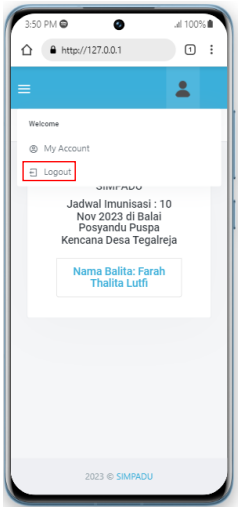




e. Halaman Profil

f. Halaman Logout





Lampiran 4. *Source Code*

simpadu\application\controllers\Kmeans*Elbow*.php

```
<?php
defined('BASEPATH') OR exit('No direct script access allowed');
include ("libraries/autoload.php");
use GroceryCrud\Core\GroceryCrud;
class KmeansElbow extends CI_Controller {
    var $footer = [];
    var $menu = [];
  function __construct() {
    parent::__construct();
    if($this->session->userdata('login')==NULL){
      redirect('home');
    }
    $database   = include ('database.php'); //config database Grocery
    $config     = include ('config.php'); //config library Grocery
    $this->crud = new GroceryCrud($config, $database); //initialize Grocery
    $this->crud->unsetBootstrap();
    $this->crud->unsetExport();
    $this->crud->unsetPrint();
  }
  public function index()
  {
        $var['module'] = "kmanselbow/dashboard";
        $var['var_module'] = array();
        $var['content_title'] = "Dashboard";
        $this->load->view('main',$var);
  }
  function reset($id){
    $this->db->update("tbuser",array("password"=>md5('12345')),array(
      "id"=>$id
    ));
    redirect('kmanselbow/users');
  }
  function users(){
    $var = array();
    if($this->session->userdata("login")["jabatan"]=="LURAH"){
      $this->crud->unsetOperations();
    }
    $this->crud->unsetFilters();
    $this->crud->setTable('tbuser');
    $this->crud->unsetFields(['created_at', 'updated_at', 'password']);
    $this->crud->unsetColumns(['password']);
    $this->crud->setSubject('User');
    $this->crud->callbackBeforeInsert(function ($stateParameters) {
      $stateParameters->data['password'] = md5('12345');
    });
    $this->crud->setActionButton('Reset', 'fa fa-unlock', function ($row) {
      return 'reset/' . $row->id;
    }, false);
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Data User";
    $var['module'] = "kmanselbow/users";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function profile(){
    $var = array();
    $this->crud->unsetFilters();
    $this->crud->unsetAdd();
    $this->crud->unsetDelete();
    $this->crud->setTable('tbuser');
    $this->crud->editFields(['password']);
    $this->crud->unsetColumns(['password', 'created_at', 'updated_at', 'status_ortu']);
    $this->crud->setLangString('edit', 'Ubah Password');
```

```
    $this->crud->where(["id"=>$this->session->userdata("login")['id']]);
    $this->crud->callbackBeforeInsert(function ($stateParameters) {
      $stateParameters->data['password'] = md5('12345');
    });
    $this->crud->callbackEditForm(function ($data) {
      $data['password'] = '';

      return $data;
  });
  $this->crud->callbackBeforeUpdate(function ($stateParameters) {
    $stateParameters->data['password'] = md5($stateParameters->data['password']);
    return $stateParameters;
});
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Profil";
    $var['module'] = "kmeanselbow/users";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function vaksin(){
    $var = array();
    if($this->session->userdata("login")["jabatan"]=="KADER"){
      $this->crud->unsetOperations();
    }
    $this->crud->unsetFilters();
    $this->crud->setTable('tbmaster_vaksin');
    $this->crud->setSubject('Vaksin');
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Master Vaksin";
    $var['module'] = "kmeanselbow/vaksin";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function vitamin(){
    $var = array();
    if($this->session->userdata("login")["jabatan"]=="KADER"){
      $this->crud->unsetOperations();
    }
    $this->crud->unsetFilters();
    $this->crud->setTable('tbmaster_vitamin');
    $this->crud->setSubject('Vitamin');
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Master Vitamin";
    $var['module'] = "kmeanselbow/vitamin";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function balita(){
    $var = array();
```

```
    if($this->session->userdata("login")["jabatan"]=="LURAH"){
      $this->crud->unsetOperations();
    }
    $this->crud->unsetFilters();
    $this->crud->setTable('tbbalita');
    $this->crud->displayAs("id_user","Orang Tua");
    $this->crud->unsetFields(['created_at', 'updated_at']);
    $this->crud->setRelation("id_user","tbuser","{nama} - {jabatan}",["jabatan"=>"ORANG
TUA"]);
    $this->crud->setSubject('Balita');
    $this->crud->defaultOrdering('tbbalita.id', 'desc');
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Data Balita";
    $var['module'] = "kmeanselbow/balita";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function jadwal(){
    $var = array();
    $this->crud->setTable('tbjadwal');
    $this->crud->addFields(['tanggal', 'tempat', 'Keterangan']);
    $this->crud->editFields(['tanggal', 'tempat', 'Keterangan']);
    $this->crud->setSubject('Jadwal');
    $this->crud->defaultOrdering('tbjadwal.id', 'desc');
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Data Jadwal";
    $var['module'] = "kmeanselbow/jadwal";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }
  function keterangan_status($type,$nilai){
    if($type=="bbu"){
      if($nilai < -3){
        return "Berat Badan Sangat Kurang";
      }else if($nilai < -2){
        return "Berat Badan Kurang";
      }else if($nilai < 1){
        return "Berat Badan Normal";
      }else{
        return "Resiko Berat Badan Lebih";
      }
    }
    if($type=="tbu"){
      if($nilai < -3){
        return "Sangat Pendek";
      }else if($nilai < -2){
        return "Pendek";
      }else if($nilai < 3){
        return "Normal";
      }else{
        return "Tinggi";
      }
    }
    if($type=="bbpb"){
      if($nilai < -3){
        return "Gizi Buruk";
      }else if($nilai < -2){
        return "Gizi Kurang";
      }else if($nilai < 1){
```

```
        return "Gizi Baik";
      }else if($nilai < 2){
        return "Resiko Gizi Berlebih";
      }else if($nilai < 3){
        return "Gizi Berlebih";
      }else{
        return "Obesitas";
      }
    }
  }
  function imunisasi(){
    $var = array();
    if(@$this->session->userdata("login")["jabatan"]=="ORANG TUA"){
      $this->crud->unsetOperations();
      $balita_id = $this->db->get_where("tbbalita",array("id_user"=>$this->session-
>userdata("login")["id"]))->result_array();
      $balita_id = array_column($balita_id,'id');
      $ex = implode(",",$balita_id);
      $this->crud->where("id_balita in (".$ex.")");
    }

    $this->crud->setTable('tbimunisasi');
    $this->crud->setLanguage('Indonesian');
    $this->crud->displayAs("id_balita","Nama Balita");
    $this->crud->displayAs("id_vitamin","Vitamin");
    $this->crud->displayAs("id_vaksin","Vaksin");
    $this->crud->displayAs("id_user","Kader");
    $this->crud->unsetFields(['created_at', 'updated_at',
'id_user','tgl_imunisasi','usia','bb_u','tb_u','bb_pb','status_bbu','status_tbu','status
_bbpb']);
    $this->crud->setRelation("id_balita","tbbalita","{nama} - {jk}");
    $this->crud->setRelation("id_vitamin","tbmaster_vitamin","nama");
    $this->crud->setRelation("id_vaksin","tbmaster_vaksin","nama");
    $this->crud->setRelation("id_user","tbuser","nama");
    $this->crud->defaultOrdering('tbimunisasi.id', 'desc');
    if($this->input->get('balita_id')!==NULL){
      $this->crud->where(['id_balita'=>$this->input->get('balita_id')]);
    }
    $this->crud->callbackBeforeInsert(function ($stateParameters) {
      //get balita
      $stateParameters->data['id_user'] = $this->session->userdata("login")['id'];
      $stateParameters->data['tgl_imunisasi'] = date("Y-m-d");
      $balita = $this->db->get_where("tbbalita",array("id"=>$stateParameters-
>data["id_balita"]))->result();
      if(sizeof($balita)>0){
        $tgl_lahir_balita = $balita[0]->tgl_lahir;
        $date1 = strtotime($tgl_lahir_balita);
        $date2 = strtotime(date("Y-m-d"));
        $diffInSeconds = $date2 - $date1;
        $monthsDifference = floor($diffInSeconds / (30 * 24 * 60 * 60)); //
Approximation for a month
        $stateParameters->data["usia"] = $monthsDifference+1;
        //Calc BBU
            $berat_badan = floatval(str_replace(',', '.', $stateParameters-
>data["berat_badan"]));
            $result = $this->db->get_where("tb_bbu",array(
              "usia"=>$stateParameters->data["usia"],
              "jk"=>$balita[0]->jk
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $berat_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zBBu = ($berat_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["bb_u"] = $zBBu;
              $stateParameters->data['status_bbu'] = $this-
>keterangan_status('bbu',$zBBu);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
                return $errorMessage->setMessage("Data tidak valid BBU\n");
            }
      //Calc TBU
            $tinggi_badan = floatval(str_replace(',', '.', $stateParameters-
>data["tinggi_badan"]));
            $result = $this->db->get_where("tb_tbu",array(
              "usia"=>$stateParameters->data["usia"],
              "jk"=>$balita[0]->jk
```

```
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $tinggi_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zTBu = ($tinggi_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["tb_u"] = $zTBu;
              $stateParameters->data['status_tbu'] = $this-
>keterangan_status('tbu',$zTBu);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
                return $errorMessage->setMessage("Data tidak valid TBU\n");
            }
      //Calc BBTB
            $berat_badan = floatval(str_replace(',', '.', $stateParameters-
>data["berat_badan"]));
            $tinggi_badan = floatval(str_replace(',', '.', $stateParameters-
>data["tinggi_badan"]));
            $pbField = (intval($stateParameters->data["usia"]) < 24) ? 'PB' : 'TB';

            $result = $this->db->get_where("tb_bbtb",array(
              "pj_badan"=>$tinggi_badan,
              "jk"=>$balita[0]->jk,
              "pbtb"=>$pbField
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $berat_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zBBTB = ($berat_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["bb_pb"] = $zBBTB;
              $stateParameters->data['status_bbpb'] = $this-
>keterangan_status('bbpb',$zBBTB);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
                return $errorMessage->setMessage("Data tidak valid BBTB\n");
            }
      }else{
        $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
          return $errorMessage->setMessage("Balita tidak ditemukan\n");
      }
      return $stateParameters;
    });
    $this->crud->callbackBeforeUpdate(function ($stateParameters) {
      //get balita
      $stateParameters->data['id_user'] = $this->session->userdata("login")['id'];
      $balita = $this->db->get_where("tbbalita",array("id"=>$stateParameters-
>data["id_balita"]))->result();
      if(sizeof($balita)>0){
        $tgl_lahir_balita = $balita[0]->tgl_lahir;
        $date1 = strtotime($tgl_lahir_balita);
        $date2 = strtotime(date("Y-m-d"));
        $diffInSeconds = $date2 - $date1;
        $monthsDifference = floor($diffInSeconds / (30 * 24 * 60 * 60)); //
Approximation for a month
        $stateParameters->data["usia"] = $monthsDifference+1;
        //Calc BBU
            $berat_badan = floatval(str_replace(',', '.', $stateParameters-
>data["berat_badan"]));
            $result = $this->db->get_where("tb_bbu",array(
              "usia"=>$stateParameters->data["usia"],
              "jk"=>$balita[0]->jk
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $berat_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zBBu = ($berat_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["bb_u"] = $zBBu;
              $stateParameters->data['status_bbu'] = $this-
>keterangan_status('bbu',$zBBu);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
```

```
                return $errorMessage->setMessage("Data tidak valid BBU\n");
            }
        //Calc TBU
            $tinggi_badan = floatval(str_replace(',', '.', $stateParameters-
>data["tinggi_badan"]));
            $result = $this->db->get_where("tb_tbu",array(
              "usia"=>$stateParameters->data["usia"],
              "jk"=>$balita[0]->jk
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $tinggi_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zTBu = ($tinggi_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["tb_u"] = $zTBu;
              $stateParameters->data['status_tbu'] = $this-
>keterangan_status('tbu',$zTBu);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
                return $errorMessage->setMessage("Data tidak valid TBU\n");
            }
        //Calc BBTB
            $berat_badan = floatval(str_replace(',', '.', $stateParameters-
>data["berat_badan"]));
            $tinggi_badan = floatval(str_replace(',', '.', $stateParameters-
>data["tinggi_badan"]));
            $pbField = (intval($stateParameters->data["usia"]) < 24) ? 'PB' : 'TB';

            $result = $this->db->get_where("tb_bbtb",array(
              "pj_badan"=>$tinggi_badan,
              "jk"=>$balita[0]->jk,
              "pbtb"=>$pbField
            ))->result();
            if(sizeof($result)>0){
              $median = floatval(str_replace(',', '.', $result[0]->median));
              $val = $berat_badan - $median;
              $StDev = ($val > 0) ? floatval(str_replace(',', '.', $result[0]->sd1)) :
floatval(str_replace(',', '.', $result[0]->sd_1));
              $sdRujukan = $median - $StDev;
              $zBBTB = ($berat_badan - $median) / $sdRujukan; //zBBU
              $stateParameters->data["bb_pb"] = $zBBTB;
              $stateParameters->data['status_bbpb'] = $this-
>keterangan_status('bbpb',$zBBTB);
            }else{
              $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
                return $errorMessage->setMessage("Data tidak valid BBTB\n");
            }
        }else{
          $errorMessage = new \GroceryCrud\Core\Error\ErrorMessage();
            return $errorMessage->setMessage("Balita tidak ditemukan\n");
        }
        return $stateParameters;
    });
    $output = $this->crud->render();
    if ($output->isJSONResponse) {
        header('Content-Type: application/json; charset=utf-8');
        echo $output->output;
        exit;
    }
    $var['menu'] = $this->menu;
    $var['footer'] = $this->footer;
    $var['gcrud'] = 1;
    $var['content_title'] = "Data Imunisasi";
    $var['module'] = "kmeanselbow/imunisasi";
    $var['css_files']       = $output->css_files;
    $var['js_files']        = $output->js_files;
    $var['output']          = $output->output;
    $this->load->view('main', $var);
  }

public function process($page="dataset")
    {
        $var['menu'] = $this->menu;
        $var['module'] = "kmeanselbow/process";
        $var['var_module'] = array("page"=>$page);
        $var['content_title'] = "Metode K-Means Elbow";
        $var['footer'] = $this->footer;
```

```
        $this->load->view('main',$var);
    }
    public function laporan($page="anggota")
      {
          $var['menu'] = $this->menu;
          $var['module'] = "kmeanselbow/laporan/".$page;
          $var['var_module'] = array("titlebar"=>"Laporan " .$page);
          $var['content_title'] = "Laporan";
          $var['footer'] = $this->footer;
          $this->load->view('main',$var);
      }
}
```

simpadu\application\models\Kmeans*Elbow*_Model.php

```
<?php
defined('BASEPATH') OR exit('No direct script access allowed');

class KmeansElbow_Model extends CI_Model {
    // Inisialisasi variabel kelas
    var $data = array();  // Menyimpan data yang akan di-cluster
    var $cluster = [];  // Menyimpan hasil klaster setiap iterasi
    var $maxloop = 10;  // Jumlah iterasi maksimum
    var $jmlcentroid = 0;  // Jumlah centroid (kluster) yang diinginkan
    var $dimensi = 0;  // Jumlah dimensi dari data
    var $centroid = 0;  // Nilai centroid
    var $centroid_allof;
    var $data_cluster = [];
    var $distance = [];

    // Konstruktor kelas
    function __construct() {
        parent::__construct();
    }

    // Fungsi inisialisasi
    public function init($data = NULL, $jmlcentroid = 0, $centroid = NULL, $maxloop =
10) {
        // Inisialisasi variabel kelas dengan parameter yang diberikan
        $this->data = $data;
        $this->cluster = [];
        $this->maxloop = $maxloop;
        $this->jmlcentroid = $jmlcentroid;
        $this->dimensi = sizeof($this->data[0]);

        // Pilihan metode inisialisasi centroid
        if ($centroid == 'rata-rata') {
            $this->centroid = $this->centroid_rata_rata();
        } else if ($centroid == 'random') {
            $this->centroid = $this->centroid_random();
        }

        // Reset variabel lainnya
        $this->centroid_allof = [];
        $this->data_cluster = [];
        $this->distance = [];
    }

    // Fungsi untuk mendapatkan informasi proses
    public function getprocess() {
        return array("centroid" => $this->centroid_allof, "distance" => $this->distance,
"cluster" => $this->cluster);
    }

    // Fungsi optimisasi untuk menemukan jumlah kluster optimal menggunakan metode Elbow
    public function elbow_optimize($data = [], $maxcluster = 2, $maxloop = 10, $centroid
= NULL) {
        $hasil = array();
        $result = array();
        $process = array();

        // Loop untuk berbagai jumlah kluster
        for ($cluster = 2; $cluster <= $maxcluster; $cluster++) {
            $this->init($data, $cluster, 'rata-rata', $maxloop, $centroid);
            $this->execute();
            $output = $this->getprocess();
```

```
            $cluster_acuan = $output['cluster'][(sizeof($output['cluster'])-1)];
            $centroid_acuan = $output['centroid'][(sizeof($output['centroid'])-1)];
            $temp2 = array();
            $process2 = array();

            // Loop untuk menghitung varians intra-cluster
            foreach ($cluster_acuan as $key => $value) {
                $temp1 = array();
                $process1 = array();
                $process1[] = "Cluster - ".$cluster;

                // Loop untuk menghitung kuadrat jarak setiap titik ke centroid dalam
satu cluster
                foreach ($data[$key] as $i => $keys) {
                    $temp1[] = pow(($keys - $centroid_acuan[$value][$i]), 2);
                    $process1[] = "(".$keys." - ".$centroid_acuan[$value][$i].")^2";
                }

                $temp2[] = array_sum($temp1);
                $process1[] = array_sum($temp1);
                $process2[] = $process1;
            }

            // Menyimpan hasil perhitungan varians intra-cluster untuk jumlah kluster
tertentu
            $hasil[] = array("cluster" => $cluster, "hasil" => array_sum($temp2));
            $process[] = $process2;
        }

        // Menghitung perbedaan nilai varians intra-cluster antar jumlah kluster
        $x = 0;
        foreach ($hasil as $key) {
            if ($x == 0) {
                $result[] = array("cluster" => $key['cluster'], "nilai" =>
$key['hasil'], "selisih" => $key['hasil']);
            } else {
                $result[] = array("cluster" => $key['cluster'], "nilai" =>
$key['hasil'], "selisih" => abs($key['hasil'] - $hasil[$x-1]['hasil']));
            }
            $x++;
        }

        // Mengembalikan hasil berupa array yang berisi informasi proses dan hasil
perhitungan
        return array("process" => $process, "hasil" => $result);
    }

    // Fungsi untuk menjalankan algoritma K-Means
    public function execute() {
        for ($i = 0;; $i++) {
            $this->cluster[$i] = array();

            // Inisialisasi kluster dan centroid pada iterasi pertama
            if ($i == 0) {
                $this->data_cluster[$i] = $this->centroid;
                $this->centroid_allof[$i] = $this->data_cluster[$i];
            } else {
                $this->data_cluster[$i] = $this->data_cluster[$i-1];
                $this->centroid_allof[$i] = $this->data_cluster[$i];
            }

            // Cari jarak antara setiap data dan centroid
            foreach ($this->data as $c) {
                $distance_data = array();
                foreach ($this->data_cluster[$i] as $d) {
                    $cluster_data = array();
                    for ($x = 0; $x < $this->dimensi; $x++) {
                        $cluster_data[$x] = pow(abs($c[$x] - $d[$x]), 2);
                    }
                    $distance_data[] = sqrt(array_sum($cluster_data));
                }
                $this->distance[$i][] = $distance_data;
            }

            // Tentukan klaster
            $x = 0;
            foreach ($this->distance[$i] as $key) {
                $min = min($key);
                $c = array_search($min, $key);
```

```
                $this->cluster[$i][$x] = $c;
                $x++;
            }

            // Re-pointing: Memindahkan data ke dalam kluster yang sesuai
            $this->data_cluster[$i] =  array();
            foreach ($this->cluster[$i] as $key => $value) {
                $this->data_cluster[$i][$value][] = $this->data[$key];
            }

            // Update centroid
            $this->data_cluster_temp = $this->data_cluster[$i];
            $this->data_cluster[$i] = array();

            // Penghitungan rata-rata nilai setiap dimensi untuk mendapatkan centroid
baru
            foreach ($this->data_cluster_temp as $key => $value) {
                $temp = array();
                foreach ($value as $keys => $values) {
                    foreach ($values as $keyx => $valuem) {
                        $temp[$keyx][] = $this->data_cluster_temp[$key][$keys][$keyx];
                    }
                }
                for ($x1 = 0; $x1 < sizeof($temp); $x1++) {
                    $this->data_cluster[$i][$key][$x1] = array_sum($temp[$x1]) /
count($temp[$x1]);
                }
            }

            // Proses pengurutan kluster agar urut mulai dari kluster 1 sampai n
            $temp2[$i] = array();
            $max_temp2 = array_keys($this->data_cluster[$i]);
            $max_temp2 = max($max_temp2);

            for ($u = 0; $u <= $max_temp2; $u++) {
                if (isset($this->data_cluster[$i][$u])) {
                    $temp2[$i][$u] = $this->data_cluster[$i][$u];
                }
            }
            $this->data_cluster[$i] = $temp2[$i];

            // Cek kondisi berhenti iterasi
            if ($i > 0) {
                if ($this->stoploop($i)) {
                    break;
                }
            }
        }
    }

    // Fungsi untuk mengecek kondisi berhenti iterasi
    private function stoploop($i) {
        if (sizeof($this->cluster) > 1) {
            $last_index_cluster = sizeof($this->cluster) - 1;
            for ($x = 0; $x < sizeof($this->cluster[$last_index_cluster]); $x++) {
                if ($this->cluster[$last_index_cluster][$x] != $this-
>cluster[($last_index_cluster - 1)][$x]) {
                    return false;
                } else if ($i > $this->maxloop - 2) {
                    return true;
                }
            }
            return true;
        } else {
            return false;
        }
    }

    // Fungsi untuk menghitung centroid awal dengan metode rata-rata
    private function centroid_rata_rata() {
        $central = round(sizeof($this->data) / $this->jmlcentroid, 0);
        $step = $central;
        $this->dimensi = sizeof($this->data[0]);
        $cek = 0;
        $c = 0;

        // Loop untuk mendapatkan nilai centroid awal
        for ($z = 0; $z < sizeof($this->data); $z++) {
            $temp = [];
```

```
            for ($d = 0; $d < $this->dimensi; $d++) {
                $temp[] = $this->data[$z][$d];
            }
            if ((($z % $central) < $central && $z % $central != 0) || $z == 0) {
                $temp_centroid_awal[$c][$z] = $temp;
            } else {
                if ($c + 1 < $this->jmlcentroid) {
                    $c++;
                }
                $temp_centroid_awal[$c][$z] = $temp;
            }
        }

        // Mengelompokkan nilai-nilai setiap dimensi ke dalam array yang sesuai dengan
centroid
        foreach ($temp_centroid_awal as $key => $value) {
            $temp = [];
            foreach ($value as $keys => $values) {
                for ($d = 0; $d < $this->dimensi; $d++) {
                    $temp[$d][] = $temp_centroid_awal[$key][$keys][$d];
                }
            }
            $temps[$key] = $temp;
        }

        // Menghitung rata-rata dari setiap dimensi untuk mendapatkan centroid awal
        foreach ($temp_centroid_awal as $key => $value) {
            for ($d = 0; $d < $this->dimensi; $d++) {
                $centroid_awal[$key][$d] = array_sum($temps[$key][$d]) /
count($temps[$key][$d]);
            }
        }

        // Mengembalikan nilai centroid awal
        return $centroid_awal;
    }
}
```

simpadu\application \views\layout\menu.php

```
<div class="left-side-menu">
    <!-- LOGO -->
    <div class="logo-box">
        <a href="<?=base_url()?>kmeans*elbow*" class="logo logo-dark text-center">
            <span class="logo-sm">
                <span class="logo-lg-text-light"><?=APPNAME?></span>
            </span>
            <span class="logo-lg">
                <span class="logo-lg-text-light"><?=APPNAME?></span>
            </span>
        </a>

        <a href="<?=base_url()?>kmeans*elbow*" class="logo logo-light text-center">
          <span class="logo-sm">
              <span class="logo-lg-text-light">SP</span>
          </span>
          <span class="logo-lg">
              <span class="logo-lg-text-light"><?=APPNAME?></span>
          </span>
        </a>
    </div>

    <div class="h-100" data-simplebar>

        <!-- *User* box -->
        <div class="*user*-box text-center">
            <img src="../assets/images/*users*/avatar-1.jpg" alt="*user*-img" title="Mat
Helme"
                class="rounded-circle avatar-md">
            <div class="dropdown">
                <a href="#" class="text-reset dropdown-toggle h5 mt-2 mb-1 d-block"
                    data-bs-toggle="dropdown"><?=@$this->session-
>*user*data('*login*')['nama']?></a>
                <div class="dropdown-menu *user*-pro-dropdown">
                    <a href="<?=base_url()?>logout" class="dropdown-item notify-item">
                        <i class="fe-log-out me-1"></i>
                        <span>Logout</span>
```

```
                    </a>

                </div>
            </div>
            <p class="text-reset">Admin Head</p>
        </div>

        <!--- Sidemenu -->
        <div id="sidebar-menu">

            <ul id="side-menu">
                <li class="menu-title mt-2">Navigation</li>
                <?php
                  if(@$this->session->userdata("login")["jabatan"]=="LURAH"){
                  ?>
                  <li>
                    <a href="<?=base_url()?>kmeanselbow">
                      <i class="ri-dashboard-line"></i>
                      <span> Dashbord</span>
                    </a>
                  </li>
                  <li>
                    <a href="<?=base_url()?>kmeanselbow/users">
                      <i class="ri-dashboard-line"></i>
                      <span> Data User</span>
                    </a>
                  </li>
                  <li>
                    <a href="<?=base_url()?>kmeanselbow/balita">
                      <i class="ri-dashboard-line"></i>
                      <span> Data Balilta</span>
                    </a>
                  </li>
                  <li>
                      <a href="#kmeanselbow" data-bs-toggle="collapse" aria-
expanded="false" aria-controls="kmeanselbow">
                          <i class="ri-dashboard-line"></i>
                          <span> K-Means Elbow </span>
                      </a>
                      <div class="collapse" id="kmeanselbow">
                          <ul class="nav-second-level">
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/dataset">Dataset</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/elbow">Optimasi Elbow</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/cluster">Tentukan Cluster</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/execute">Proses</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/result">Hasil</a>
                              </li>
                          </ul>
                      </div>
                  </li>
                  <li>
                      <a href="#laporan" data-bs-toggle="collapse" aria-
expanded="false" aria-controls="laporan">
                          <i class="ri-dashboard-line"></i>
                          <span> Laporan </span>
                      </a>
                      <div class="collapse" id="laporan">
                          <ul class="nav-second-level">
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/anggota">Data Anggota</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/balita">Data Balita</a>
```

```
                                    </li>
                                    <li>
                                        <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/vaksinvitamin">Vaksin & Vitamin</a>
                                    </li>
                                    <li>
                                        <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/penimbangan">Penimbangan Bulanan</a>
                                    </li>
                                    <li>
                                        <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/kmeans">Pengelompokan K-Means</a>
                                    </li>
                                </ul>
                            </div>
                        </li>
                    <?php
                    }
                ?>
                <?php
                  if(@$this->session->userdata("login")["jabatan"]=="KADER"){
                    ?>
                    <li>
                      <a href="<?=base_url()?>kmenselbow">
                        <i class="ri-dashboard-line"></i>
                        <span> Dashbord</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/users">
                        <i class="ri-dashboard-line"></i>
                        <span> Data User</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/balita">
                        <i class="ri-dashboard-line"></i>
                        <span> Data Balilta</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/jadwal">
                        <i class="ri-dashboard-line"></i>
                        <span> Data Jadwal</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/imunisasi">
                        <i class="ri-dashboard-line"></i>
                        <span> Data Imunisasi</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/vaksin">
                        <i class="ri-dashboard-line"></i>
                        <span> Data Vaksin</span>
                      </a>
                    </li>
                    <li>
                      <a href="<?=base_url()?>kmenselbow/vitamin">
                        <i class="ri-dashboard-line"></i>
                        <span> Data Vitamin</span>
                      </a>
                    </li>

                    <li>
                        <a href="#kmenselbow" data-bs-toggle="collapse" aria-
expanded="false" aria-controls="kmenselbow">
                            <i class="ri-dashboard-line"></i>
                            <span> K-Means Elbow </span>
                        </a>
                        <div class="collapse" id="kmenselbow">
                            <ul class="nav-second-level">
                                <li>
                                    <a
href="<?=base_url()?>index.php/KmeansElbow/process/dataset">Dataset</a>
                                </li>
                                <li>
```

```
                                    <a
href="<?=base_url()?>index.php/KmeansElbow/process/elbow">Optimasi Elbow</a>
                                </li>
                                <li>
                                    <a
href="<?=base_url()?>index.php/KmeansElbow/process/cluster">Tentukan Cluster</a>
                                </li>
                                <li>
                                    <a
href="<?=base_url()?>index.php/KmeansElbow/process/execute">Proses</a>
                                </li>
                                <li>
                                    <a
href="<?=base_url()?>index.php/KmeansElbow/process/result">Hasil</a>
                                </li>
                            </ul>
                        </div>
                    </li>
                    <li>
                      <a href="#laporan" data-bs-toggle="collapse" aria-
expanded="false" aria-controls="laporan">
                          <i class="ri-dashboard-line"></i>
                          <span> Laporan </span>
                      </a>
                      <div class="collapse" id="laporan">
                          <ul class="nav-second-level">
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/anggota">Data Anggota</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/balita">Data Balita</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/vaksinvitamin">Vaksin & Vitamin</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/penimbangan">Penimbangan Bulanan</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/kmeans">Pengelompokan K-Means</a>
                              </li>
                          </ul>
                      </div>
                    </li>
                  <?php
                }
              ?>
              <?php
                if(@$this->session->userdata("login")["jabatan"]=="NUTRISIONIS" ||
@$this->session->userdata("login")["jabatan"]=="BIDAN"){
                ?>
                <li>
                  <a href="<?=base_url()?>kmeanselbow">
                    <i class="ri-dashboard-line"></i>
                    <span> Dashbord</span>
                  </a>
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/users">
                    <i class="ri-dashboard-line"></i>
                    <span> Data User</span>
                  </a>
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/balita">
                    <i class="ri-dashboard-line"></i>
                    <span> Data Balilta</span>
                  </a>
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/jadwal">
                    <i class="ri-dashboard-line"></i>
                    <span> Data Jadwal</span>
                  </a>
```

```
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/imunisasi">
                    <i class="ri-dashboard-line"></i>
                    <span> Data Imunisasi</span>
                  </a>
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/vaksin">
                    <i class="ri-dashboard-line"></i>
                    <span> Data Vaksin</span>
                  </a>
                </li>
                <li>
                  <a href="<?=base_url()?>kmeanselbow/vitamin">
                    <i class="ri-dashboard-line"></i>
                    <span> Data Vitamin</span>
                  </a>
                </li>
                <li>
                      <a href="#kmeanselbow" data-bs-toggle="collapse" aria-
expanded="false" aria-controls="kmeanselbow">
                          <i class="ri-dashboard-line"></i>
                          <span> K-Means Elbow </span>
                      </a>
                      <div class="collapse" id="kmeanselbow">
                          <ul class="nav-second-level">
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/dataset">Dataset</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/elbow">Optimasi Elbow</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/cluster">Tentukan Cluster</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/execute">Proses</a>
                              </li>
                              <li>
                                  <a
href="<?=base_url()?>index.php/KmeansElbow/process/result">Hasil</a>
                              </li>
                          </ul>
                      </div>
                  </li>
              <li>
              <li>
                  <a href="#laporan" data-bs-toggle="collapse" aria-expanded="false"
aria-controls="laporan">
                      <i class="ri-dashboard-line"></i>
                      <span> Laporan </span>
                  </a>
                  <div class="collapse" id="laporan">
                      <ul class="nav-second-level">
                          <li>
                              <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/anggota">Data Anggota</a>
                          </li>
                          <li>
                              <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/balita">Data Balita</a>
                          </li>
                          <li>
                              <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/vaksinvitamin">Vaksin & Vitamin</a>
                          </li>
                          <li>
                              <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/penimbangan">Penimbangan Bulanan</a>
                          </li>
                          <li>
                              <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/kmeans">Pengelompokan K-Means</a>
                          </li>
```

```
                        </ul>
                    </div>
                  </li>
                <?php
                }
              ?>
              <?php
                if(@$this->session->userdata("login")["jabatan"]=="ORANG TUA"){
                ?>
                <li>
                  <a href="<?=base_url()?>kmeanselbow">
                    <i class="ri-dashboard-line"></i>
                    <span> Dashbord</span>
                  </a>
                </li>
                <li>
                    <a href="#laporan" data-bs-toggle="collapse" aria-expanded="false"
aria-controls="laporan">
                        <i class="ri-dashboard-line"></i>
                        <span> Laporan </span>
                    </a>
                    <div class="collapse" id="laporan">
                        <ul class="nav-second-level">
                            <li>
                                <a
href="<?=base_url()?>index.php/KmeansElbow/laporan/penimbangan">Penimbangan Bulanan</a>
                            </li>
                        </ul>
                    </div>
                  </li>
                <?php
                }
              ?>
          </ul>
        </div>
        <!-- End Sidebar -->
        <div class="clearfix"></div>
    </div>
    <!-- Sidebar -left -->
</div>
```

simpadu\application\views\module\kmeans*elbow*\process.php

```
<?php
if(empty($this->session->userdata("tahun")) && empty($this->session->userdata("bulan"))){
  $tahun = date("Y");
  $bulan = date("m");
}else{
  $tahun = empty($this->input->post("tahun"))?$this->session->userdata("tahun"):$this->input-
>post("tahun");
  $bulan = empty($this->input->post("bulan"))?$this->session->userdata("bulan"):$this->input-
>post("bulan");
}
  $this->session->set_userdata("tahun",$tahun);
  $this->session->set_userdata("bulan",$bulan);

$process = array();
$qdata = $this->db->query("SELECT
  CONCAT(a.id,' - ',b.nama) AS nama,
  REPLACE(a.`tb_u`,',','.') as tb_u,
  REPLACE(a.`bb_u`,',','.') as bb_u,
  REPLACE(a.`bb_pb`,',','.') as bb_pb
FROM tbimunisasi a JOIN tbbalita b ON a.`id_balita`=b.`id`
WHERE a.`tgl_imunisasi` LIKE ?;",array($this->session->userdata("tahun")."-".$this->session-
>userdata("bulan")."%"))->result_array();

$index = array();
$dataset = array();
if(sizeof($qdata)>0){
  $index = array_keys($qdata[0]);
  $dataset = $qdata;
}
if($page == "cluster"){
  if(isset($_POST['simpan'])){
    //fungsi setiap menyimpan jumlah centroid, maksimal looping, dan nilai centroid ke dalam
session
    $this->session->set_userdata('maxloop',$this->input->post('maxloop'));
    $this->session->set_userdata('centroid',$this->input->post('centroid'));
    $this->session->set_userdata('jmlcentroid',$this->input->post('jmlcentroid'));
    $this->session->set_userdata('c',$this->input->post('c'));
```

```
    $this->session->set_userdata('isimanual',$this->input->post('isimanual'));
  }
}
if($page == "execute"){
  //mengeksekusi perintah clustering, cek dahulu apakah ada data yang masuk pada if dibawah
  if($this->session->userdata('datatoprocess')!==NULL && $this->session-
>userdata('jmlcentroid')!==NULL && $this->session->userdata('centroid')!==NULL){
    //menginisialisasi data dahulu menggunakan fungsi init dan masukan kedalam parameter,
fungsi2 nya ada di KmeansElbow_Model.php di folder application/model/
    $this->kmeanselbow->init($this->session->userdata('datatoprocess'),$this->session-
>userdata('jmlcentroid'),$this->session->userdata('centroid'),$this->session-
>userdata("maxloop"));
    $this->kmeanselbow->execute();
    //mengambil hasil proses dari data kmeans yang diolah
    $process = $this->kmeanselbow->getprocess();
    //Hasil ini akan ditampilkan pada menu2 dibawah ini.. pada variabel $process
  }
}
?>
<script type="text/javascript" src="<?=base_url()?>assets/js/plot.js"></script>
<div class="row">
    <!-- Right Sidebar -->
    <div class="col-12">
        <div class="card card-box">
            <!-- Left sidebar -->
            <div class="card-body">
              <?php
                //jika memilih menu dataset kmeans
                if($page == 'dataset'){
                ?>
                <div class="col-md-12">
                  <?=form_open("")?>
                    <div class="row">
                    <div class="form-group col-4">
                      <label>Tahun</label>
                      <select class="form-control" name="tahun">
                        <?php
                          for($x=date("Y");$x>date("Y")-5;$x--){
                            ?><option value="<?=$x?>"
<?=$tahun==$x?'selected':''?>><?=$x?></option><?php
                          }
                        ?>
                      </select>
                    </div>
                    <div class="form-group col-4">
                      <label>Bulan</label>
                      <select class="form-control" name="bulan">
                        <?php
                          $month =
array("01"=>"Januari","02"=>"Februari","03"=>"Maret","04"=>"April","05"=>"Mei","06"=>"Juni","0
7"=>"Juli","08"=>"Agustus","09"=>"September","10"=>"Oktober","11"=>"November","12"=>"Desember"
);
                          foreach($month as $key=>$value){
                            ?><option value="<?=$key?>"
<?=$bulan==$key?'selected':''?>><?=$value?></option><?php
                          }
                        ?>
                      </select>
                    </div>
                    <div class="form-group col-4">
                      <button class="btn btn-primary mt-3" type="submit">Cari</button>
                    </div>
                  </div>
                  <?=form_close()?>
                    <?php
                        if(sizeof($dataset)>0){
                    ?>
                    <div class="card-box table-responsive">
                      <h4>Dataset K-Means & Elbow</h4>
                      <table class="table table-striped">
                        <thead>
                          <tr>
                            <?php
                                // ini fungsi untuk menampilkan data dari session kedalam
bentuk tabel
                                foreach ($index as $key) {
                                  ?>
                                  <th><?=$key?></th>
                                  <?php
                                }
                            ?>
                          </tr>
                        </thead>
                        <tbody>
```

```
                            <?php
                            $datatoprocess = array();
                            $indexdata = array();
                            foreach ($dataset as $key) {
                                ?>
                                <tr>
                                    <?php
                                    $temp = array();
                                    $x = 0;
                                    foreach ($index as $keys) {
                                       if($x>0){
                                         array_push($temp,$key[$keys]);
                                       }else{
                                         array_push($indexdata,$key[$keys]);
                                       }
                                        ?>
                                            <td><?=$key[$keys]?></td>
                                        <?php
                                        $x++;
                                     }
                                    ?>
                                </tr>
                                <?php
                              array_push($datatoprocess,$temp);
                            }
                            $this->session->set_userdata("process_dataset",$dataset);
                            $this->session->set_userdata("datatoprocess",$datatoprocess);
                            $this->session->set_userdata("indexdata",$indexdata);
                            ?>
                          </tbody>
                        </table>
                      </div>
                      <?php } ?>
                    </div>
                  <?php
                  //Ketika memilih menu Tentukan Cluster
                }else if($page == 'cluster'){ ?>
                    <h4>Tentukan Centroid & Cluster</h4>
                    <br />
                    <?=form_open("KmeansElbow/process/cluster",array("class"=>"form-
horizontal","role"=>"form"))?>
                    <form class="form-horizontal" role="form" method="POST">
                      <div id="clustermodal" class="modal fade">
                          <div class="modal-dialog modal-lg">
                              <div class="modal-content">
                                  <div class="modal-header">
                                      <h4 class="modal-title">Custom Cluster</h4>
                                      <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">×</button>
                                  </div>
                      <div class="modal-body p-4">
                        <?php
                        if($this->session->userdata('process_dataset')!==NULL && $this->session-
>userdata('process_datasetindex')!==NULL){
                            $index = $this->session->userdata('process_datasetindex');
                            $dataset = $this->session->userdata('process_dataset');
                            ?>
                            <div class="card-box table-responsive">
                              <h4>Pilih Cluster</h4>
                              <?php
                              if($this->session->userdata('jmlcentroid')>0){
                                //Menampilkan dataset dari session ke tabel
                                ?>
                                <table class="table table-striped">
                                  <thead>
                                    <tr>
                                      <?php
                                          foreach ($index as $key) {
                                            ?>
                                              <th><?=$key?></th>
                                            <?php
                                          }
                                      ?>
                                    </tr>
                                  </thead>
                                  <tbody>
                                  <?php
                                  $n=0;
                                  foreach ($dataset as $key) {
                                      ?>
                                      <tr>
                                      <?php
                                      $x=0;
                                        foreach ($index as $keys) {
```

```
                                    if($x>=1){
                                      ?>
                                      <td><?=$key[$keys]?> <input type="checkbox"
name="c[<?=$keys?>][<?=$n?>]" value="<?=$key[$keys]?>" <?=isset($this->session-
>userdata('c')[$keys][$n])?'checked':''?>/></td>
                                      <?php
                                    }else{
                                      ?>
                                      <td><?=$key[$keys]?></td>
                                      <?php
                                    }
                                    $x++;
                                  }
                                ?>
                                </tr>
                                <?php
                                $n++;
                                }
                                ?>
                              </tbody>
                            </table>
                            <?php
                          }else{
                            ?>
                              <strong class="text-danger">*Jumlah Centroid Belum di
Isi</strong>
                            <?php
                          }
                          ?>
                        </div>
                        <?php
                        }
                      ?>
                    </div>
                    </div>
                    </div>
                    </div>
                    <div class="form-group row mb-2">
                        <label class="col-sm-2 col-form-label" for="simpleinput">Type
Centroid</label>
                        <div class="col-sm-10">
                            <select class="form-control" name="centroid"
onchange="typecentroid(event)">
                              <option value="rata-rata" <?=$this->session-
>userdata('centroid')=='rata-rata'?'selected':'';?>>Rata-Rata Nilai</option>
                              <option value="random" <?=$this->session-
>userdata('centroid')=='random'?'selected':'';?>>Random Centroid</option>
                            </select>
                        </div>
                    </div>
                    <div class="form-group row mb-2">
                        <label class="col-sm-2 col-form-label" for="example-email">Jumlah
Cluster</label>
                        <div class="col-sm-10">
                            <?php
                              $elbowses = $this->session->userdata("elbows");
                            ?>
                            <input type="number" id="jmlcls" name="jmlcentroid" min="2"
<?=$this->session->userdata('process_dataset')===NULL?'readonly':''?> max="<?=$this->session-
>userdata('process_dataset')!==NULL?sizeof($this->session->userdata('process_dataset')):2?>"
required value="<?=$elbowses!=""?$elbowses:$this->session->userdata('jmlcentroid')?>"
class="form-control" placeholder="<?=$this->session-
>userdata('process_dataset')===NULL?'Masukan Dataset Dahulu':'Jumlah Cluster'?>">
                        </div>
                    </div>
                    <div class="form-group row mb-2">
                        <label class="col-sm-2 col-form-label" for="example-email">Max
Perulangan</label>
                        <div class="col-sm-10">
                            <input type="number" name="maxloop" value="<?=$this->session-
>userdata('maxloop')!==NULL?$this->session->userdata('maxloop'):10?>" class="form-control"
placeholder="Maksimal Perulangan" required>
                        </div>
                    </div>
                    <div class="form-group row" id="fm" style="display:<?=$this->session-
>userdata('centroid')=='fill'?'flex':'none'?>;">
                        <label class="col-sm-2 col-form-label" for="example-email">Isi
Manual</label>
                        <div class="col-sm-10">
                            <input type="text" name="isimanual" value="<?=$this->session-
>userdata("isimanual")!==NULL?$this->session->userdata("isimanual"):''?>" class="form-control"
placeholder="Ex : [[1,5],[7,6],[2,9]]" />
                        </div>
                    </div>
```

```
                    <div class="form-group float-right">
                      <?php
                        if($this->session->userdata('process_dataset')!==NULL){
                          ?>
                            <button class="btn btn-primary" type="submit"
name="simpan">Simpan</button>
                          <?php
                        }
                      ?>
                    </div>
                </form>
                <?php }else if($page == 'execute'){ ?>
                  <?php
                  if(sizeof($process)>0){
                    if($this->session->userdata('centroid') != NULL){
                      $loopresult = sizeof($process['cluster']);
                      $indexdata = $this->session->userdata('indexdata');
                      for($n=0;$n<$loopresult;$n++) {
                      ?>
                      <button class="btn btn-purple btn-block"><strong>Perulangan Ke -
<?=$n+1?></strong></button>
                      <br />
                      <h4>Perulangan <?=$n+1?> - Penentuan Centroid</h4>
                      <div class="table-responsive">
                        <table class="table table-border">
                          <tr>
                            <td>Centroid</td>
                            <td>TB_U</td>
                            <td>BB_U</td>
                            <td>BB_PB</td>
                          </tr>
                          <?php
                          $x=0;
                          foreach ($process['centroid'][$n] as $key) {
                            $x++;
                            ?>
                            <tr>
                              <td>Centroid <?=$x?></td>
                              <?php
                              foreach ($key as $keys) {
                                ?>
                                <td align="left"><?=$keys?></td>
                                <?php
                              }
                              ?>
                            </tr>
                            <?php
                          }
                          ?>
                        </table>
                      </div>
                      <hr />
                      <h4>Perulangan <?=$n+1?> - Hitung Euclidean Distance</h4>
                      <div class="table-responsive">
                        <table class="table table-border">
                        <tr>
                            <?php
                              for($x=0;$x<$this->session->userdata("elbows");$x++){
                                ?>
                                <!-- <td>Centroid <?=$x+1?></td> -->
                                <?php
                              }
                            ?>
                          </tr>
                          <?php
                          $x=0;
                          foreach ($process['distance'][$n] as $key) {
                            $x++;
                            ?>
                            <tr>
                              <td><?=$indexdata[$x-1]?></td>
                              <?php
                              foreach ($key as $keys) {
                                ?>
                                <td align="left"><?=$keys?></td>
                                <?php
                              }
                              ?>
                            </tr>
                            <?php
                          }
                          ?>
                        </table>
                      </div>
```

```
                    <hr />
                    <h4>Perulangan <?=$n+1?> - Hasil Cluster</h4>
                    <div class="table-responsive">
                      <table class="table table-border">
                      <tr>
                          <td>Nama Balita</td>
                          <td>Cluster</td>
                        </tr>
                        <?php
                        $x=0;
                        $kmeans_result=array();
                        foreach ($process['cluster'][$n] as $key) {
                          $x++;
                          ?>
                          <tr>
                            <td><?=$indexdata[$x-1]?></td>
                            <td><?=($key+1)?></td>
                          </tr>
                          <?php
                          $kmeans_result[]=array($indexdata[$x-1],($key+1));
                        }
                        $this->session->set_userdata("kmeans_result",$kmeans_result);
                        ?>
                      </table>
                    </div>
                  <?php } ?>
                    <?php
                  }
                }
                ?>
              <?php }else if($page == 'elbow'){ ?>
                  <h4>Elbow Method</h4>
                  <br />
                  <p>Mencari titik centroid yang optimal dengan menggunakan perhitungan
cluster <?=$this->session->userdata('centroid')?> dari dataset</p>
                  <form class="form-horizontal" role="form" method="POST">
                    <div class="form-group row">
                        <label class="col-sm-4 col-form-label" for="simpleinput">Jumlah
Cluster (Dari - Sampai)</label>
                        <div class="col-sm-3">
                            <input type="number" name="maxel" class="form-control" min="2"
max="<?=$this->session->userdata('process_dataset')!==NULL?sizeof($this->session-
>userdata('process_dataset')):5?>" placeholder="Maksimal Cluster">
                        </div>
                    </div>
                    <div class="form-group row">
                        <label class="col-sm-4 col-form-label" for="example-email">Max
Perulangan</label>
                        <div class="col-sm-6">
                            <input type="number" name="maxloopel" value="" class="form-
control" placeholder="max loop elbow">
                        </div>
                    </div>
                    <div class="form-group float-left">
                      <button class="btn btn-primary" type="submit"
name="elbowsimpan">Process</button>
                    </div>
                </form>
                <br /><br /><br />
                <div class="card">
                    <div class="card-header bg-warning py-2 text-white">
                        <div class="card-widgets">
                            <a href="#" data-toggle="reload"><i class="mdi mdi-
refresh"></i></a>
                            <a data-toggle="collapse" href="#cardCollpase6" role="button"
aria-expanded="false" aria-controls="cardCollpase2"><i class="mdi mdi-minus"></i></a>
                            <a href="#" data-toggle="remove"><i class="mdi mdi-close"></i></a>
                        </div>
                        <h5 class="card-title mb-0 text-white">Hasil Metode Elbow</h5>
                    </div>
                    <div id="cardCollpase6" class="collapse show">
                        <script>var dataelbow=[];</script>
                        <div class="card-body table-responsive">
                    <?php
                      if(isset($_POST['elbowsimpan']) && isset($_POST['maxel']) &&
isset($_POST['maxloopel'])){
                        if($this->session->userdata('datatoprocess')!==NULL){
                          $elbow = $this->kmeanselbow->elbow_optimize($this->session-
>userdata('datatoprocess'),$this->input->post('maxel'),$this->input->post('maxloopel'),$this-
>session->userdata('centroid'));
                          ?>
                          <h4>Process Elbow</h4>
                          <table class="table table-border">
                            <thead>
```

```
                                <th>Cluster</th>
                                <?php
                                  $x=0;
                                  foreach ($index as $key) {
                                    if($x>0){
                                      ?>
                                        <th><?=$key?></th>
                                      <?php
                                    }
                                    $x++;
                                  }
                                ?>
                                <th>Hasil Penjumlahan</th>
                              </thead>
                              <tbody>
                              <?php
                              foreach ($elbow['process'] as $key) {
                                foreach ($key as $keys) {
                                  ?>
                                    <tr>
                                      <?php
                                      foreach ($keys as $keyn) {
                                        ?>
                                          <td><?=$keyn?></td>
                                        <?php
                                      }
                                      ?>
                                    </tr>
                                  <?php
                                }

                              }
                              ?>
                            </tbody>
                            </table>
                            <h4>Hasil Algoritma Elbow</h4>
                            <table class="table table-border">
                              <thead>
                                <th>Cluster</th>
                                <th>Nilai</th>
                                <th>Selisih</th>
                              </thead>
                              <tbody>
                              <?php
                              $elbows = [];
                              foreach ($elbow['hasil'] as $key) {
                                $elbows[$key['cluster']] = $key['selisih'];
                                ?>
                                  <tr>
                                    <td><?=$key['cluster']?></td>
                                    <td><?=$key['nilai']?></td>
                                    <td><?=$key['selisih']?></td>
                                  </tr>
                                  <script>dataelbow.push([<?=$key['cluster']?>,<?=$key['selisi
h']?>]);</script>
                                <?php
                              }
                              arsort($elbows);
                              $max=1;
                              foreach ($elbows as $key => $value) {
                                if($max==2){
                                  $this->session->set_userdata("elbows",$key);
                                  break;
                                }else{
                                  $max++;
                                }

                              }
                              ?>
                            </tbody>
                            </table>
                          <?php
                        }else{
                          echo "<h4>Silahkan Upload Dataset</h4>";
                        }
                      }
                    ?>

                    </div>
                    <div class="row">
                        <div class="col-lg-12">
                            <div class="card">
                              <div class="card-body">
                                <h4 class="header-title">Elbow Graph</h4>
```

```
                                <p style="margin-bottom:-50px;">SSE</p>
                                <div id="website-stats1" style="height: 350px;" class="flot-
chart mt-5"></div>
                                <p style="text-align:center;">Jumlah Cluster</p>
                              </div>
                            </div>
                        </div> <!-- end col -->
                    </div>
                </div>
                </div>
              <?php }else if($page == "result"){
                ?>
                <h4>Hasil Cluster KMeans</h4>
                <div class="table-responsive" id="export">
                  <table class="table table-border">
                    <thead>
                      <th>Nama Balita</th>
                      <th>Cluster</th>
                    </thead>
                    <?php
                    if($this->session->userdata("kmeans_result")!==NULL){
                      $this->db->truncate("hasil_kmeans");
                      foreach ($this->session->userdata("kmeans_result") as $key) {
                        ?>
                        <tr>
                        <?php
                        $x=0;$id="";$nama="";$cluster="";
                        foreach ($key as $keys) {
                          if($x==0){
                            $ex = explode(" - ",$keys);
                            $id = $ex[0];
                            $nama = $ex[1];
                          }else{
                            $cluster = $keys;
                          }
                          ?>
                            <td><?=$keys?></td>
                          <?php
                          $x++;
                        }
                        $this->db->insert("hasil_kmeans",array(
                          "id_imunisasi"=>$id,
                          "nama"=>$nama,
                          "cluster"=>$cluster
                        ));
                        ?>
                      </tr>
                        <?php
                      }
                    }
                    ?>
                  </table>
                  <h4>Jumlah Cluster</h4>
                  <table class="table table-border">
                    <thead>
                      <th>Cluster</th>
                      <th>Jumlah</th>
                    </thead>
                    <?php
                    if($this->session->userdata("kmeans_result")!==NULL){
                      $res = array();
                      foreach ($this->session->userdata("kmeans_result") as $key) {
                        if(!isset($res[$key[1]])){
                          $res[$key[1]]=1;
                        }else{
                          $res[$key[1]]++;
                        }
                      }
                      foreach ($res as $key => $val) {
                        ?>
                        <tr>
                          <td><?=$key?></td>
                          <td><?=$val?></td>
                      </tr>
                        <?php
                      }
                    }
                    ?>
                  </table>
                </div>
                <?php
              } ?>
            </div>
            <div class="clearfix"></div>
```

```
        </div> <!-- end card-box -->
    </div> <!-- end Col -->
</div>
<script>
$(document).ready(function () {
  //Grafik untuk menampilkan hasil elbow optimize
  if(typeof dataelbow !== 'undefined'){
      var dataset = [
          {
              label: "line1",
              data: dataelbow
          }
      ];
      var options = {
        axisLabels: {
                show: true
            },
        xaxes: [{
                axisLabel: 'foo',
            }],
        yaxes: [{
                position: 'left',
                axisLabel: 'bar',
            }, {
                position: 'right',
                axisLabel: 'bleem'
            }],
        series: {
              lines: { show: true },
              points: {
                  radius: 3,
                  show: true
              }
          }
      }
      $.plot($("#website-stats1"), dataset, options);
  }
});
function typecentroid(e){
  var type = $(e.target).val();
  if(type=='custom'){
    $('#clustermodal').modal('show');
  }else if(type=='fill'){
    $('#fm').show();
  }else {
    $('#fm').hide();
  }
}
</script>
```

simpadu\application\views*login*.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <title>Log In | <?=APPNAME?></title>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta content="A fully featured admin theme which can be used to build CRM, CMS, etc."
name="description" />
  <meta content="Coderthemes" name="author" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <!-- App favicon -->
  <link rel="shortcut icon" href="<?=base_url()?>assets/images/ico.ico">
  <!-- App css -->
  <link href="<?=base_url()?>assets/css/default/bootstrap.min.css" rel="stylesheet"
type="text/css" id="bs-default-stylesheet" />
  <link href="<?=base_url()?>assets/css/default/app.min.css" rel="stylesheet" type="text/css"
id="app-default-stylesheet" />
  <link href="<?=base_url()?>assets/css/default/bootstrap-dark.min.css" rel="stylesheet"
type="text/css" id="bs-dark-stylesheet" />
  <link href="<?=base_url()?>assets/css/default/app-dark.min.css" rel="stylesheet"
type="text/css" id="app-dark-stylesheet" />
  <!-- icons -->
  <link href="<?=base_url()?>assets/css/icons.min.css" rel="stylesheet" type="text/css" />

</head>
<body class="loading">
  <div id="preloader">
    <div id="status">
      <div class="bouncingLoader"><div ></div><div ></div><div ></div></div>
    </div>
```

```
  </div>
    <div class="account-pages mt-5 mb-5">
      <div class="container">
        <div class="row justify-content-center">
          <div class="col-md-8 col-lg-6 col-xl-4">
          <style>
.card {
    border: 1px solid #5AC2F0;
    border-radius: 10px;
}
</style>
<div class="card">
    <div class="card-body p-4">
      <div class="text-center">
        <img src="<?=base_url()?>assets/images/img.png" width="145" />
          </div>
            <div class="text-center w-75 m-auto">
            <style>
              h2 {
                  color: #5AC2F0;
                  font-weight: bold;
              }
              h5 {
                  color: #5AC2F0;
              }
              </style>
              <h2><?=APPNAME?></h2>
              <h5>Sistem Informasi Puspa Posyandu</h5>
            </div>
            <?php echo form_open('auth/login'); ?>
              <div class="form-group mb-3">
                <label for="emailaddress">Username</label>
                <input class="form-control" type="text" name="user_name" autocomplete="off"
required="" placeholder="Masukan Username">
              </div>
              <div class="form-group mb-3">
                <label for="password">Password</label>
                <input class="form-control" type="password" required="" autocomplete="off"
name="user_password" placeholder="Masukan Password">
              </div>
              <div class="d-grid mb-0 text-center">
                <style>
                  .btn-primary {
                      background-color: #5AB4F0;
                      border-color: #378FCF;
                      color: #fff;
                      font-size: 15px;
                      font-weight: bold;
                    }
                </style>
                <button class="btn btn-primary btn-block" type="submit"> Login </button>
                </div>
                <?=form_close()?>
              </div>
            </div>
          </div>
        </div>
      </div>
    </div>
    <footer class="footer footer-alt">
        <script>document.write(new Date().getFullYear())</script> © <a
href="#"><?=APPNAME?></a>
    </footer>
    <script src="<?=base_url()?>assets/js/vendor.min.js"></script>
    <script src="<?=base_url()?>assets/js/app.min.js"></script>
</body>
</html>
```

simpadu\application\views\main.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <title><?=isset($var_module['titlebar'])?$var_module['titlebar']    :APPNAME?></title>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta content="A fully featured admin theme which can be used to build CRM, CMS, etc."
name="description" />
  <meta content="Coderthemes" name="author" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <!-- App favicon -->
```

```
  <link rel="shortcut icon"
href="https://coderthemes.com/minton/layouts/assets/images/favicon.ico">
  <!-- App css -->
  <link href="<?=base_url()?>assets/css/default/bootstrap.min.css" rel="stylesheet"
type="text/css" id="bs-default-stylesheet" />
  <link href="<?=base_url()?>assets/css/default/app.min.css" rel="stylesheet" type="text/css"
id="app-default-stylesheet" />
  <!-- icons -->
  <link href="<?=base_url()?>assets/css/icons.min.css" rel="stylesheet" type="text/css" />
  <!-- Vendor js -->
  <?php
    if(isset($gcrud)){
      if($gcrud==1){
        foreach ($css_files as $key) {
          ?>
          <link href="<?=$key?>" rel="stylesheet" type="text/css" />
          <?php
        }
      }
    }
  ?>
  <style>
    .gc-modal-body .form-group{
      margin-bottom:10px;
    }
    .gc-modal-dialog .form-horizontal{
      border:1px solid black;
    }
    @media print{
        .hideprint {
            display: none;
        }
      }
  </style>
  <!-- Vendor js -->
  <script src="<?=base_url()?>assets/js/vendor.min.js"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/jspdf/2.4.0/jspdf.umd.min.js"></script>
</head><!-- body start -->
  <body><!-- Begin page -->
    <div id="wrapper"><!-- Topbar Start -->
      <?php $this->load->view("layout/header"); ?><!-- end Topbar -->
      <!-- ========== Left Sidebar Start ========== -->
      <?php $this->load->view("layout/menu"); ?>
      <!-- Left Sidebar End -->
      <div class="content-page">
        <div class="content">
          <div class="container-fluid">
            <div class="row">
              <div class="col-12">
                <div class="page-title-box">
                <?php
                  if(isset($content_title)){
                    ?>
                      <h4 class="page-title"><?=$content_title?></h4>
                    <?php
                  }
                ?>
                <div class="page-title-right">
                  <ol class="breadcrumb m-0">
                    <?php
                      if(isset($breadcrumb)){
                        foreach ($breadcrumb as $key=>$value) {
                          ?>
                            <li class="breadcrumb-item <?=$value?>"><?=$key?></li>
                          <?php
                        }
                      }
                    ?>
                    </ol>
                  </div>
                </div>
              </div>
            </div>
            <?php
            if(isset($gcrud)){
              if($gcrud==1){
                $var_module['output'] = $output;
                $this->load->view("module/".$module,isset($var_module)?$var_module:array());
              }else if(isset($module)){
                $this->load->view("module/".$module,isset($var_module)?$var_module:array());
              }else{
                $this->load->view("module/dashboard");
              }
            }else if(isset($module)){
```

```
                $this->load->view("module/".$module,isset($var_module)?$var_module:array());
            }else{
                $this->load->view("module/dashboard");
            }
            ?>
          </div> <!-- container -->
      </div> <!-- content -->
      <!-- Footer Start -->
      <footer class="footer">
        <div class="container-fluid">
          <div class="row">
            <div class="col-md-6">
              <script>document.write(new Date().getFullYear())</script> © <a
href="#">SIMPADU</a>
            </div>
          </div>
        </div>
      </footer> <!-- end Footer -->
    </div> <!-- End Page content -->
  </div><!-- END wrapper -->
  <!-- Right bar overlay-->
  <div class="rightbar-overlay"></div>
  <!-- App js -->
  <script src="<?=base_url()?>assets/js/app.min.js"></script>
    <?php
    if(isset($gcrud)){
      if($gcrud==1){
        foreach ($js_files as $key) {
          ?>
          <script src="<?=$key?>"></script>
          <?php
        }
      }
    }
  ?>
  </body>
</html>
```

Lampiran 5. Data Penimbangan Balita

Bulan Januari

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
1	1	110	18,6	2020-01-10...	54	-0,52	-0,750000000000001	-0,0588235294117656	Berat Badan N
2	2	100	15,3	2020-01-10...	55	-1,04761904761905	-1,63636363636363	-0,083333333333333	Berat Badan N
3	3	106	14,6	2020-01-10...	55	-1,38095238095238	-0,272727272727273	-1,85714285714286	Berat Badan N
4	4	100	15,2	2020-01-10...	55	-1,0952380952381	-1,63636363636363	-0,166666666666667	Berat Badan N
5	5	103	14,7	2020-01-10...	54	-1,08695652173913	-0,695652173913043	-1	Berat Badan N
6	6	105	15,5	2020-01-10...	54	-0,857142857142857	-0,386363636363637	-1	Berat Badan N
7	7	105	17,1	2020-01-10...	48	-0,347826086956522	-0,404761904761905	-0,187500000000001	Berat Badan N
8	8	107	16,1	2020-01-10...	50	-0,299999999999999	-0,604651162790697	-1	Berat Badan N
9	9	102	16,2	2020-01-10...	50	-0,25	-0,571428571428572	-0,214285714285713	Berat Badan N
10	10	100	15,1	2020-01-10...	50	-0,619047619047619	-0,886363636363637	-0,0769230769230767	Berat Badan N
11	11	99	14,3	2020-01-10...	49	-1,1	-1,16666666666667	-0,666666666666666	Berat Badan N
12	12	97	12,1	2020-01-10...	48	-0,952380952380953	-1,32558139534884	-0,25	Berat Badan N
13	13	97	13,4	2020-01-10...	48	-1,28571428571429	-1,32558139534884	-0,833333333333333	Berat Badan N
14	14	100	14,3	2020-01-10...	48	-1,05263157894737	-0,785714285714285	-0,916666666666666	Berat Badan N
15	15	100	15	2020-01-10...	50	-0,666666666666667	-0,886363636363637	-0,153846153846153	Berat Badan N
16	16	102	15,3	2020-01-10...	47	-0,3	-0,0238095238095225	-0,384615384615384	Berat Badan N
17	17	97	13,2	2020-01-10...	47	-1,35	-1,21428571428572	-1	Berat Badan N
18	18	97	14,3	2020-01-10...	46	-0,894736842105263	-1,26829268292683	-0,249999999999999	Berat Badan N
19	19	95	12,1	2020-01-10...	44	-1,68421052631579	-1,29268292682927	-1,5	Berat Badan N
20	20	101	15,1	2020-01-10...	44	-0,315789473684211	0	-0,416666666666667	Berat Badan N
21	21	95	14,8	2020-01-10...	43	-0,210526315789473	-1,14634146341463	-0,692307692307693	Berat Badan N
22	22	92	14	2020-01-10...	43	-0,631578947368421	-1,8780487804878	-0,692307692307692	Berat Badan N
23	23	103	16,2	2020-01-10...	42	-0,545454545454545	-0,975609756097562	-0,0624999999999988	Berat Badan N
24	24	99	15,1	2020-01-10...	42	-0,0454545454545453	0	-0,133333333333333	Berat Badan N
25	25	90	12,4	2020-01-10...	42	-1,36842105263158	-2,25	-0,199999999999999	Berat Badan N
26	26	100	15,2	2020-01-10...	42	-0,0588235294117655	-0,0256410256410242	-0,166666666666667	Berat Badan N
27	27	95	13,1	2020-01-10...	40	-1,11764705882353	-0,923076923076924	-0,909090909090909	Berat Badan N
28	28	88	11	2020-01-10...	40	-2	-2,48717948717948	-1,1	Berat Badan N
29	29	93	13,8	2020-01-10...	39	-0,352941176470588	-1,025	-0,307692307692308	Berat Badan N
30	30	86	13,3	2020-01-10...	38	-0,529411764705882	-2,66666666666666	-1,54545454545455	Berat Badan N
31	31	91	12,1	2020-01-10...	39	-1,35294117647059	-1,525	-0,727272727272728	Berat Badan N
32	32	95	13,4	2020-01-10...	38	-0,470588235294117	-0,35897435897436	-0,416666666666666	Berat Badan N
33	33	96	9,8	2020-01-10...	38	-2,58823529411765	-0,102564102564104	-3,58333333333333	Berat Badan K
34	34	98	16,3	2020-01-10...	37	-1,15	-0,58974358974359	-1,14285714285714	Berat Badan N
35	35	98	13,5	2020-01-10...	35	-0,4375	-0,702702702702703	-1,18181818181818	Berat Badan N
36	36	95	11,4	2020-01-10...	33	-1,1875	-0,567567567567568	-2,08333333333333	Berat Badan N
37	37	87	11,8	2020-01-10...	32	-1,1875	-1,82857142857143	-0,399999999999999	Berat Badan N
38	38	87	11,4	2020-01-10...	31	-1	-1,25714285714286	-0,5	Berat Badan N
39	39	97	11	2020-01-10...	30	-1,13333333333333	-1,8	-2,83333333333333	Berat Badan N
40	40	87	10,4	2020-01-10...	30	-1,93333333333333	-1,44117647058823	-1,8	Berat Badan N
41	41	84	11,2	2020-01-10...	29	-1,35714285714286	-2,11764705882353	-0,222222222222223	Berat Badan N
42	42	88	12,1	2020-01-10...	33	-0,75	-1,36111111111111	0	Berat Badan N
43	43	94	12,6	2020-01-10...	29	-0,0588235294117645	-1,17142857142857	-0,909090909090909	Berat Badan N
44	44	89	10,7	2020-01-10...	31	-1,86666666666667	-1,05714285714286	-2,11111111111111	Berat Badan N
45	45	78	10,4	2020-01-10...	27	-1,64285714285714	-3,62500000000001	-0,222222222222223	Berat Badan N
46	46	85	10,1	2020-01-10...	27	-1,42857142857143	-0,970588235294119	-1,3	Berat Badan N
47	47	89	11	2020-01-10...	25	-0,5	-0,727272727272726	-1,4	Berat Badan N
48	48	78	9,8	2020-01-10...	24	-1,71428571428572	-3,26666666666667	-0,499999999999999	Berat Badan N
49	49	86	12,2	2020-01-10...	26	-0,187499999999999	-0,424242424242425	-0,545454545454545	Berat Badan N
50	50	88	10,1	2020-01-10...	26	-1,84615384615385	-0,249999999999999	-2,55555555555556	Berat Badan N
51	51	93	11,4	2020-01-10...	24	-0,0769230769230766	-2,06250000000001	-1,81818181818182	Berat Badan N
52	52	76	11,4	2020-01-10...	25	-0,214285714285714	-3,21212121212121	-2,11111111111111	Berat Badan N
53	53	87	11,8	2020-01-10...	24	-0,2	-0,187499999999999	-0,0999999999999996	Berat Badan N
54	54	90	11,4	2020-01-10...	23	-0,0666666666666664	-1,40625	-1	Berat Badan N
55	55	91	15,1	2020-01-10...	21	-2,57142857142857	-2,03448275862069	-1,90909090909091	Berat Badan K
56	56	79	11,5	2020-01-10...	21	0	-2,17857142857143	-1,33333333333333	Berat Badan N
57	57	81	9,5	2020-01-10...	21	-1,07692307692308	-0,870967741935482	-0,888888888888889	Berat Badan N
58	58	84	9,3	2020-01-10...	20	-1,08333333333333	-0,433333333333332	-1,88888888888889	Berat Badan N
59	59	87	10,9	2020-01-10...	21	-0,5	-0,655172413793104	-1,22222222222222	Berat Badan N
60	60	71	10,2	2020-01-10...	21	-1,08333333333333	-5,03571428571429	-2	Berat Badan N
61	61	85	11	2020-01-10...	20	-0,25	-0,285714285714285	-0,555555555555555	Berat Badan N
62	62	78	10,5	2020-01-10...	19	-0,545454545454545	-1,92592592592592	-0,444444444444445	Berat Badan N
63	63	75	9,7	2020-01-10...	19	-0,583333333333334	-2,3103448275862	-0,666666666666666	Berat Badan N
64	64	74	10,3	2020-01-10...	18	-0,0714285714285724	-2,3103448275862	-1,625	Berat Badan N
65	65	78	9	2020-01-10...	20	-1,33333333333333	-1,56666666666667	-0,875	Berat Badan N
66	66	83	11,3	2020-01-10...	19	-0,642857142857143	-0,433333333333332	-0,545454545454546	Berat Badan N
67	67	83	9,7	2020-01-10...	18	-1,09090909090909	-0,25925925925926	-1,625	Berat Badan N
68	68	78	10	2020-01-10...	16	-0,153846153846153	-0,214285714285712	-0,333333333333334	Berat Badan N
69	69	78	8,7	2020-01-10...	18	-2	-1,59259259259259	-1,75	Berat Badan N
70	70	69	9,8	2020-01-10...	11	-0,363636363636364	-2,39130434782609	-2,28571428571428	Berat Badan N

Bulan Februari

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
71	1	111	18,7	2020-02-10...	55	-0,499999999999999	-0,934782608695653	-0,125	Berat Badan N
72	2	101	15,5	2020-02-10...	56	-1	-1,51111111111111	-0,0833333333333331	Berat Badan N
73	3	106	15,5	2020-02-10...	56	-1	-0,399999999999999	-1,21428571428572	Berat Badan N
74	4	101	15,4	2020-02-10...	56	-1,04545454545455	-1,51111111111111	-0,166666666666666	Berat Badan N
75	5	103	14,8	2020-02-10...	55	-1,13636363636364	-0,822222222222223	-0,928571428571428	Berat Badan N
76	6	103	15,7	2020-02-10...	55	-0,857142857142858	-0,954545454545454	-0,384615384615385	Berat Badan N
77	7	106	17,2	2020-02-10...	49	-0,304347826086956	-0,5	0	Berat Badan N
78	8	107	16,3	2020-02-10...	51	-0,25	-0,465116279069768	-0,857142857142858	Berat Badan N
79	9	102	17	2020-02-10...	51	-0,0833333333333331	-0,697674418604652	-0,785714285714285	Berat Badan N
80	10	100	15,7	2020-02-10...	51	-0,428571428571429	-1,02272727272727	-0,333333333333333	Berat Badan N
81	11	100	14,5	2020-02-10...	50	-1,1	-1,04761904761905	-0,75	Berat Badan N
82	12	97	12,2	2020-02-10...	49	-1,95238095238095	-1,46511627906977	-1,83333333333333	Berat Badan N
83	13	97	13,6	2020-02-10...	49	-1,28571428571429	-1,46511627906977	-0,666666666666667	Berat Badan N
84	14	100	15,1	2020-02-10...	49	-0,7	-0,928571428571429	-0,25	Berat Badan N
85	15	100	15,1	2020-02-10...	51	-0,714285714285715	-1,02272727272727	-0,0769230769230767	Berat Badan N
86	16	103	16	2020-02-10...	48	-0,0476190476190483	-0,0697674418604645	-0,0714285714285723	Berat Badan N
87	17	97	13,5	2020-02-10...	48	-1,23809523809524	-1,32558139534884	-0,75	Berat Badan N
88	18	98	14,7	2020-02-10...	47	-0,789473684210527	-1,14285714285714	-0,0909090909090921	Berat Badan N
89	19	95	12,1	2020-02-10...	45	-1,78947368421053	-1,40476190476191	-1,5	Berat Badan N
90	20	101	14,9	2020-02-10...	45	-0,5	-0,146341463414633	-0,583333333333333	Berat Badan N
91	21	95	14,7	2020-02-10...	44	-0,315789473684211	-1,29268292682927	-0,615384615384615	Berat Badan N
92	22	93	14,2	2020-02-10...	44	-0,578947368421053	-1,78048780487805	-0,615384615384615	Berat Badan N
93	23	103	18	2020-02-10...	43	-1,27272727272727	-0,804878048780488	-1,1875	Berat Badan N
94	24	99	15,7	2020-02-10...	43	-0,227272727272727	-0,170731707317074	-0,533333333333333	Berat Badan N
95	25	90	12,3	2020-02-10...	43	-1,52631578947368	-2,36585365853658	-0,299999999999999	Berat Badan N
96	26	100	15,1	2020-02-10...	43	-0,222222222222222	-0,100000000000001	-0,25	Berat Badan N
97	27	96	13,3	2020-02-10...	41	-1,05555555555556	-0,82051282051282	-0,909090909090908	Berat Badan N
98	28	88	11,1	2020-02-10...	41	-2,05555555555556	-2,6	-1	Berat Badan K
99	29	96	10	2020-02-10...	40	-2,55555555555556	-0,435897435897436	-3,41666666666667	Berat Badan K
100	30	96	13,3	2020-02-10...	39	-0,647058823529411	-0,274999999999999	-0,666666666666666	Berat Badan N
101	31	92	13,1	2020-02-10...	40	-0,833333333333334	-1,46153846153846	0	Berat Badan N
102	32	96	13,5	2020-02-10...	39	-0,529411764705882	-0,274999999999999	-0,5	Berat Badan N
103	33	96	10	2020-02-10...	39	-2,58823529411765	-0,274999999999999	-3,41666666666667	Berat Badan K
104	34	98	16	2020-02-10...	38	-0,857142857142857	-0,4102564102564 1	-0,928571428571428	Berat Badan N
105	35	98	14,3	2020-02-10...	36	0	-0,513513513513515	-0,454545454545454	Berat Badan N
106	36	95	11,5	2020-02-10...	34	-1,25	-0,368421052631579	-2	Berat Badan N
107	37	89	11,5	2020-02-10...	33	-1,53333333333333	-1,41666666666667	-1,22222222222222	Berat Badan N
108	38	87	11,6	2020-02-10...	32	-1	-1,44444444444444	-0,300000000000001	Berat Badan N
109	39	97	12	2020-02-10...	31	-0,6	-1,55555555555556	-2	Berat Badan N
110	40	87	11	2020-02-10...	31	-1,66666666666667	-1,62857142857143	-1,2	Berat Badan N
111	41	85	11,3	2020-02-10...	30	-1,33333333333333	-2,02941176470588	-0,444444444444444	Berat Badan N
112	42	88	12,7	2020-02-10...	34	-0,500000000000001	-1,51351351351352	-0,499999999999999	Berat Badan N
113	43	95	12,9	2020-02-10...	30	-0,11764705882353	-1,22857142857143	-0,833333333333333	Berat Badan N
114	44	89	10,9	2020-02-10...	32	-1,75	-1,25714285714286	-1,88888888888889	Berat Badan N
115	45	78	10,9	2020-02-10...	28	-1,42857142857143	-3,75757575757575	-0,777777777777779	Berat Badan N
116	46	85	10,2	2020-02-10...	28	-1,5	-1,20588235294118	-1,2	Berat Badan N
117	47	89	11,3	2020-02-10...	26	-0,428571428571428	-0,470588235294117	-1,1	Berat Badan N
118	48	78	10	2020-02-10...	25	-1,71428571428571	-3,22580645161291	-0,249999999999999	Berat Badan N
119	49	86	13,5	2020-02-10...	27	-0,875	-0,676470588235295	-1,72727272727273	Berat Badan N
120	50	89	10,5	2020-02-10...	27	-1,57142857142857	-0,187499999999999	-2,33333333333333	Berat Badan N
121	51	95	11,8	2020-02-10...	25	-0,0625000000000008	-2,54545454545454	-1,75	Berat Badan N
122	52	76	11,8	2020-02-10...	26	-0,0714285714285712	-3,45454545454544	-2,55555555555556	Berat Badan N
123	53	87	11,8	2020-02-10...	25	-0,0625000000000008	-0,121212121212123	-0,0999999999999996	Berat Badan N
124	54	90	11,7	2020-02-10...	24	-0,133333333333333	-1,125	-0,9	Berat Badan N
125	55	91	15,2	2020-02-10...	22	-2,42857142857143	-1,66666666666667	-2	Berat Badan K
126	56	79	11,5	2020-02-10...	22	-0,230769230769231	-2,41379310344827	-1,33333333333333	Berat Badan N
127	57	81	9,5	2020-02-10...	22	-1,23076923076923	-1,16129032258065	-0,888888888888889	Berat Badan N
128	58	82	9,5	2020-02-10...	21	-1,07692307692308	-0,548387096774193	-1,11111111111111	Berat Badan N
129	59	87	10,5	2020-02-10...	22	-1	-0,333333333333333	-1,66666666666667	Berat Badan N
130	60	80	10,3	2020-02-10...	22	-1,15384615384615	-2,06896551724138	-0,124999999999999	Berat Badan N
131	61	86	11,6	2020-02-10...	21	-0,0714285714285712	-0,310344827586208	-0,111111111111111	Berat Badan N
132	62	78	10,6	2020-02-10...	20	-0,583333333333334	-2,21428571428572	-0,555555555555555	Berat Badan N
133	63	75	9,8	2020-02-10...	20	-0,666666666666666	-2,56666666666667	-0,777777777777779	Berat Badan N
134	64	80	10,4	2020-02-10...	19	0	-0,586206896551724	-0,333333333333334	Berat Badan N
135	65	78	9,3	2020-02-10...	21	-1,23076923076923	-1,83870967741935	-0,499999999999999	Berat Badan N
136	66	85	11,3	2020-02-10...	20	-0,466666666666667	-0,766666666666666	-0,0909090909090921	Berat Badan N
137	67	84	9,9	2020-02-10...	19	-1,09090909090909	-0,285714285714285	-1,55555555555556	Berat Badan N
138	68	79	10,5	2020-02-10...	17	-0,357142857142857	-0,241379310344828	-0,666666666666666	Berat Badan N
139	69	78	8,9	2020-02-10...	19	-2	-1,92592592592592	-1,5	Berat Badan N
140	70	69	9,9	2020-02-10...	12	-0,25	-2,91304347826087	-2,42857142857143	Berat Badan N

Bulan Maret

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
141	1	112	18,9	2020-03-10...	56	-0,499999999999999	-1,02173913043478	-0,187500000000001	Berat Badan N
142	2	102	16,9	2020-03-10...	57	-0,40909090909091	-1,4	-0,714285714285713	Berat Badan N
143	3	107	15,5	2020-03-10...	57	-1,04545454545455	-0,288888888888888	-1,42857142857143	Berat Badan N
144	4	111	16,7	2020-03-10...	57	-0,5	-0,600000000000001	-1,375	Berat Badan N
145	5	104	15,7	2020-03-10...	56	-0,782608695652174	-0,717391304347826	-0,5	Berat Badan N
146	6	107	15,9	2020-03-10...	56	-0,818181818181818	-0,177777777777777	-1,14285714285714	Berat Badan N
147	7	107	17,5	2020-03-10...	50	-0,347826086956522	-0,604651162790697	0	Berat Badan N
148	8	108	17	2020-03-10...	52	0	-0,558139534883721	-0,571428571428571	Berat Badan N
149	9	105	17,3	2020-03-10...	52	-0,125	-0,136363636363635	-0,3125	Berat Badan N
150	10	106	15,3	2020-03-10...	52	-0,681818181818181	-0,222222222222222	-1,2	Berat Badan N
151	11	111	14,3	2020-03-10...	51	-1,25	-1,3953488372093	-2,875	Berat Badan N
152	12	100	14,3	2020-03-10...	50	-1	-0,886363636363637	-0,692307692307692	Berat Badan N
153	13	100	14	2020-03-10...	50	-1,14285714285714	-0,886363636363637	-0,923076923076923	Berat Badan N
154	14	102	15,2	2020-03-10...	50	-0,75	-0,571428571428572	-0,583333333333334	Berat Badan N
155	15	101	15,3	2020-03-10...	52	-0,681818181818181	-0,909090909090908	-0,153846153846153	Berat Badan N
156	16	104	16,5	2020-03-10...	49	-0,0799999999999997	-0,15909090909091	-0,0588235294117654	Berat Badan N
157	17	98	13,5	2020-03-10...	49	-1,33333333333333	-1,23255813953488	-0,923076923076923	Berat Badan N
158	18	99	15	2020-03-10...	48	-0,68421052631579	-1,02380952380952	-0,0833333333333331	Berat Badan N
159	19	99	12,4	2020-03-10...	46	-1,65	-0,595238095238095	-2,08333333333333	Berat Badan N
160	20	102	15	2020-03-10...	46	-0,526315789473684	-0,0487804878048786	-0,75	Berat Badan N
161	21	99	15	2020-03-10...	45	-0,263157894736842	-0,452380952380953	-0,0666666666666665	Berat Badan N
162	22	95	14,3	2020-03-10...	45	-0,631578947368421	-1,40476190476191	-0,307692307692308	Berat Badan N
163	23	105	18	2020-03-10...	44	-1,17391304347826	-1,11904761904762	-0,750000000000001	Berat Badan N
164	24	100	15,4	2020-03-10...	44	-0,043478260869565	-0,0731707317073165	-0,133333333333334	Berat Badan N
165	25	93	13	2020-03-10...	44	-1,21052631578947	-1,78048780487805	-0,363636363636364	Berat Badan N
166	26	102	15,5	2020-03-10...	44	-0,105263157894737	-0,243902439024391	-0,333333333333333	Berat Badan N
167	27	98	13,4	2020-03-10...	42	-1,11764705882353	-0,475000000000001	-1,27272727272727	Berat Badan N
168	28	90	14	2020-03-10...	42	-0,526315789473684	-2,25	-1,16666666666667	Berat Badan N
169	29	96	14,2	2020-03-10...	41	-0,333333333333334	-0,600000000000001	-0,0714285714285712	Berat Badan N
170	30	98	13,5	2020-03-10...	40	-0,611111111111111	-0,0749999999999993	-0,923076923076923	Berat Badan N
171	31	93	13,5	2020-03-10...	41	-0,722222222222222	-1,35	-0,0769230769230767	Berat Badan N
172	32	96	13,6	2020-03-10...	40	-0,555555555555556	-0,435897435897436	-0,416666666666667	Berat Badan N
173	33	98	10,3	2020-03-10...	40	-2,38888888888889	-0,0749999999999993	-3,38461538461539	Berat Badan K
174	34	98	16,3	2020-03-10...	39	-0,904761904761905	-0,230769230769232	-1,14285714285714	Berat Badan N
175	35	98	14,4	2020-03-10...	37	-0,0624999999999998	-0,342105263157894	-0,363636363636363	Berat Badan N
176	36	97	11,7	2020-03-10...	35	-1,17647058823529	-0,702702702702703	-2,25	Berat Badan N
177	37	89	11,9	2020-03-10...	34	-1,3125	-1,56756756756757	-0,777777777777777	Berat Badan N
178	38	89	11,8	2020-03-10...	33	-0,937499999999999	-1,08333333333333	-0,6	Berat Badan N
179	39	98	12,7	2020-03-10...	32	-0,266666666666667	-1,61111111111111	-1,53846153846154	Berat Badan N
180	40	89	11,2	2020-03-10...	32	-1,5625	-1,25714285714286	-1,55555555555556	Berat Badan N
181	41	85	11,5	2020-03-10...	31	-1,33333333333333	-2,2	-0,222222222222222	Berat Badan N
182	42	89	12,9	2020-03-10...	35	-0,470588235294117	-1,42105263157894	-0,416666666666667	Berat Badan N
183	43	95	13,1	2020-03-10...	31	-0,111111111111111	-1	-0,666666666666667	Berat Badan N
184	44	89	10,9	2020-03-10...	33	-1,93333333333333	-1,41666666666667	-1,88888888888889	Berat Badan N
185	45	80	10,9	2020-03-10...	29	-1,57142857142857	-3,29411764705882	-0,333333333333334	Berat Badan N
186	46	87	10,4	2020-03-10...	29	-1,5	-0,82857142857143	-1,5	Berat Badan N
187	47	89	11,5	2020-03-10...	27	-0,428571428571428	-0,205882352941177	-0,9	Berat Badan N
188	48	80	10,2	2020-03-10...	26	-1,76923076923077	-2,75	-0,444444444444445	Berat Badan N
189	49	90	13,6	2020-03-10...	28	-0,764705882352941	-0,264705882352942	-0,833333333333333	Berat Badan N
190	50	90	10,3	2020-03-10...	28	-1,85714285714286	-0,121212121212123	-2,6	Berat Badan N
191	51	95	11,9	2020-03-10...	26	0	-2,23529411764706	-1,66666666666667	Berat Badan N
192	52	78	12,1	2020-03-10...	27	0	-3,02941176470589	-2,3	Berat Badan N
193	53	88	12,1	2020-03-10...	26	-0,125	-0,176470588235293	0	(NULL)
194	54	92	11,7	2020-03-10...	25	0	-1,63636363636363	-1,27272727272727	Berat Badan N
195	55	92	15,2	2020-03-10...	23	-2,28571428571428	-1,7	-1,81818181818182	Berat Badan K
196	56	80	11,4	2020-03-10...	23	-0,461538461538461	-2,3	-1	Berat Badan N
197	57	82	9,7	2020-03-10...	23	-1,23076923076923	-1,09375	-0,888888888888889	Berat Badan N
198	58	84	9,7	2020-03-10...	22	-1,07692307692308	-0,193548387096773	-1,44444444444444	Berat Badan N
199	59	88	10,9	2020-03-10...	23	-0,846153846153845	-0,366666666666665	-1,44444444444445	Berat Badan N
200	60	81	10,5	2020-03-10...	23	-1,15384615384615	-1,96666666666667	-0,125	Berat Badan N
201	61	88	11,8	2020-03-10...	22	0	-0,666666666666667	-0,444444444444444	Berat Badan N
202	62	80	10,8	2020-03-10...	21	-0,583333333333333	-1,82142857142857	-0,4	Berat Badan N
203	63	76	9,9	2020-03-10...	21	-0,769230769230769	-2,48387096774193	-0,666666666666667	Berat Badan N
204	64	80	11	2020-03-10...	20	-0,266666666666667	-0,900000000000001	-1	Berat Badan N
205	65	80	10,3	2020-03-10...	22	-0,615384615384615	-1,48387096774194	-0,222222222222223	Berat Badan N
206	66	90	11,5	2020-03-10...	21	-0,428571428571428	-2,1	-0,909090909090909	Berat Badan N
207	67	84	10,2	2020-03-10...	20	-0,916666666666667	-0,0714285714285725	-1,22222222222222	Berat Badan N
208	68	80	10,5	2020-03-10...	18	-0,214285714285715	-0,241379310344828	-0,444444444444445	Berat Badan N
209	69	78	8,9	2020-03-10...	20	-2	-2,21428571428572	-1,5	Berat Badan N
210	70	70	9,2	2020-03-10...	13	-0,636363636363638	-2,875	-1	Berat Badan N

Bulan April

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
211	1	115	19	2020-04-10...	57	-0,448275862068965	-1,53191489361702	-0,777777777777778	Berat Badan N
212	2	103	17,3	2020-04-10...	58	-0,318181818181818	-1,28260869565217	-0,733333333333334	Berat Badan N
213	3	107	16	2020-04-10...	58	-0,909090909090909	-0,41304347826087	-1,07142857142857	Berat Badan N
214	4	116	17	2020-04-10...	58	-0,454545454545455	-1,57777777777778	-2,11111111111111	Berat Badan N
215	5	111	15,7	2020-04-10...	57	-0,833333333333334	-0,680851063829787	-1,94117647058824	Berat Badan N
216	6	117	16,1	2020-04-10...	57	-0,772727272727272	-1,93333333333333	-2,68421052631579	Berat Badan N
217	7	110	17,1	2020-04-10...	51	-0,125	-1,16279069767442	-0,933333333333332	Berat Badan N
218	8	108	17,2	2020-04-10...	53	0	-0,431818181818183	-0,428571428571429	Berat Badan N
219	9	105	17,2	2020-04-10...	53	0	-0,249999999999999	-0,249999999999999	Berat Badan N
220	10	106	15,6	2020-04-10...	53	-0,636363636363637	-0,0888888888888902	-1	Berat Badan N
221	11	102	14,7	2020-04-10...	52	-1,15	-0,818181818181818	-1	Berat Badan N
222	12	102	14,5	2020-04-10...	51	-1	-0,568181818181817	-1	Berat Badan N
223	13	97	13,9	2020-04-10...	51	-1,28571428571429	-1,70454545454545	-0,416666666666666	Berat Badan N
224	14	102	15,4	2020-04-10...	51	-0,7	-0,697674418604652	-0,416666666666666	Berat Badan N
225	15	102	15,7	2020-04-10...	53	-0,590909090909091	-0,799999999999999	-0,076923076923078	Berat Badan N
226	16	106	16,9	2020-04-10...	50	-0,192307692307692	-0,477272727272727	-0,133333333333335	Berat Badan N
227	17	99	13,7	2020-04-10...	50	-1,28571428571429	-1,11363636363636	-1	Berat Badan N
228	18	99	15,3	2020-04-10...	49	-0,6	-1,16666666666667	-0,153846153846155	Berat Badan N
229	19	100	12,7	2020-04-10...	47	-1,6	-0,5	-1,92307692307692	Berat Badan N
230	20	103	15,3	2020-04-10...	47	-0,473684210526315	-0,0487804878048786	-0,692307692307692	Berat Badan N
231	21	100	15,2	2020-04-10...	46	-0,25	-0,357142857142857	0	Berat Badan N
232	22	99	14,6	2020-04-10...	46	-0,55	-0,595238095238095	-0,25	Berat Badan N
233	23	110	18,3	2020-04-10...	45	-1,21739130434783	-2,16666666666667	-0,1875	Berat Badan N
234	24	102	16	2020-04-10...	45	-0,217391304347826	-0,261904761904761	-0,125	Berat Badan N
235	25	93	13,2	2020-04-10...	45	-1,21052631578947	-1,88095238095238	-0,181818181818183	Berat Badan N
236	26	103	15,7	2020-04-10...	45	-0,0555555555555563	-0,341463414634147	-0,384615384615385	Berat Badan N
237	27	99	13,6	2020-04-10...	43	-1,05555555555556	-0,350000000000001	-1,25	Berat Badan N
238	28	90	14,2	2020-04-10...	43	-0,526315789473685	-2,36585365853658	-1,33333333333333	Berat Badan N
239	29	97	14,5	2020-04-10...	42	-0,263157894736842	-0,5	-0,0714285714285712	Berat Badan N
240	30	99	13,7	2020-04-10...	41	-0,611111111111112	-0,149999999999999	-1	Berat Badan N
241	31	93	13,7	2020-04-10...	42	-0,68421052631579	-1,5	-0,23076923076923	Berat Badan N
242	32	97	13,7	2020-04-10...	41	-0,611111111111112	-0,350000000000001	-0,583333333333334	Berat Badan N
243	33	99	10,5	2020-04-10...	41	-2,38888888888889	-0,149999999999999	-3,66666666666666	Berat Badan K
244	34	99	16,2	2020-04-10...	40	-0,761904761904762	-0,324999999999999	-0,866666666666667	Berat Badan N
245	35	100	14,3	2020-04-10...	38	-0,235294117647058	-0,684210526315788	-0,916666666666666	Berat Badan N
246	36	97	11,4	2020-04-10...	36	-1,47058823529412	-0,5	-2,5	Berat Badan N
247	37	89	12,1	2020-04-10...	35	-1,3125	-1,77777777777778	-0,5555555555555555	Berat Badan N
248	38	89	11,9	2020-04-10...	34	-1	-1,2432432432432325	-0,5	Berat Badan N
249	39	99	12,3	2020-04-10...	33	-0,624999999999999	-1,64864864864865	-2,16666666666666	Berat Badan N
250	40	89	11,3	2020-04-10...	33	-1,66666666666667	-1,41666666666667	-1,44444444444444	Berat Badan N
251	41	85	11,7	2020-04-10...	32	-1,25	-2,4	0	Berat Badan N
252	42	89	13,1	2020-04-10...	36	-0,470588235294118	-1,56410256410257	-0,583333333333333	Berat Badan N
253	43	96	13,4	2020-04-10...	32	-0,166666666666667	-1,05555555555556	-0,583333333333333	Berat Badan N
254	44	90	11,3	2020-04-10...	34	-1,6875	-1,2972972972973	-1,6	Berat Badan N
255	45	81	11,2	2020-04-10...	30	-1,4	-3,20588235294117	-0,444444444444444	Berat Badan N
256	46	87	10,6	2020-04-10...	30	-1,4	-1,02777777777778	-1,3	Berat Badan N
257	47	89	11,3	2020-04-10...	28	-0,714285714285714	-0,0294117647058808	-1,1	Berat Badan N
258	48	80	10,4	2020-04-10...	27	-1,64285714285714	-3,00000000000001	-0,222222222222221	Berat Badan N
259	49	90	13,7	2020-04-10...	29	-0,705882352941176	-0,0285714285714269	-0,916666666666666	Berat Badan N
260	50	90	10,5	2020-04-10...	29	-1,85714285714286	-0,352941176470588	-2,4	Berat Badan N
261	51	95	12,7	2020-04-10...	27	-0,375	-1,97058823529412	-1	Berat Badan N
262	52	80	12,5	2020-04-10...	28	-0,117647058823529	-2,6764705882353	-2,3	Berat Badan N
263	53	88	12,6	2020-04-10...	27	-0,3125	-0,0882352941176464	-0,416666666666666	Berat Badan N
264	54	92	11,9	2020-04-10...	26	0	-1,35294117647059	-1,09090909090909	Berat Badan N
265	55	93	15,4	2020-04-10...	24	-2,28571428571429	-1,67741935483871	-1,63636363636364	Berat Badan K
266	56	80	11,7	2020-04-10...	24	-0,357142857142858	-2,6	-1,22222222222222	Berat Badan N
267	57	82	9,9	2020-04-10...	24	-1,23076923076923	-1,375	-0,888888888888889	Berat Badan N
268	58	84	9,9	2020-04-10...	23	-1,07692307692308	-0,46875	-1,22222222222222	Berat Badan N
269	59	89	11,2	2020-04-10...	24	-0,714285714285715	-0,387096774193548	-1,55555555555556	Berat Badan N
270	60	82	10,6	2020-04-10...	24	-1,14285714285714	-1,93333333333333	-0,444444444444445	Berat Badan N
271	61	88	11,7	2020-04-10...	23	-0,230769230769231	-0,366666666666665	-0,555555555555556	Berat Badan N
272	62	80	10,8	2020-04-10...	22	-0,769230769230769	-2,06896551724138	-0,4	Berat Badan N
273	63	80	9,8	2020-04-10...	22	-1	-1,48387096774194	-0,333333333333332	Berat Badan N
274	64	81	11,4	2020-04-10...	21	-0,357142857142857	-0,870967741935482	-1,1	Berat Badan N
275	65	84	10,8	2020-04-10...	23	-0,384615384615384	-0,46875	-0,222222222222221	Berat Badan N
276	66	90	11,7	2020-04-10...	22	-0,428571428571428	-1,74193548387096	-0,727272727272728	Berat Badan N
277	67	85	10,4	2020-04-10...	21	-0,916666666666667	-0,0357142857142837	-1,22222222222222	Berat Badan N
278	68	80	10,8	2020-04-10...	19	-0,285714285714286	-0,586206896551724	-0,777777777777779	Berat Badan N
279	69	79	9	2020-04-10...	21	-2,08333333333333	-2,17857142857143	-1,625	Berat Badan K
280	70	71	8	2020-04-10...	14	-1,90909090909091	-2,91666666666666	-1	Berat Badan N

Bulan Mei

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
281	1	116	19,3	2020-05-10...	58	-0,482758620689656	-1,65217391304348	-0,833333333333333	Berat Badan N
282	2	115	18	2020-05-10...	59	-0,0869565217391302	-1,21739130434783	-1,33333333333333	Berat Badan N
283	3	107	16,1	2020-05-10...	59	-0,913043478260869	-0,521739130434783	-1	Berat Badan N
284	4	117	17,2	2020-05-10...	59	-0,434782608695652	-1,65217391304348	-2,10526315789474	Berat Badan N
285	5	111	15,9	2020-05-10...	58	-0,833333333333333	-0,565217391304347	-1,82352941176471	Berat Badan N
286	6	117	16,7	2020-05-10...	58	-0,590909090909091	-1,8	-2,36842105263158	Berat Badan N
287	7	111	17,7	2020-05-10...	52	-0,291666666666667	-1,25581395348837	-0,750000000000001	Berat Badan N
288	8	109	17,6	2020-05-10...	54	-0,12	-0,522727272727273	-0,399999999999999	Berat Badan N
289	9	110	17,5	2020-05-10...	54	-0,0799999999999997	-0,750000000000001	-0,666666666666667	Berat Badan N
290	10	107	15,9	2020-05-10...	54	-0,565217391304348	-0,177777777777777	-1	Berat Badan N
291	11	102	15,1	2020-05-10...	53	-1	-0,931818181818182	-0,666666666666667	Berat Badan N
292	12	102	15	2020-05-10...	52	-0,818181818181818	-0,681818181818181	-0,615384615384616	Berat Badan N
293	13	97	14,3	2020-05-10...	52	-1,13636363636364	-1,81818181818182	-0,083333333333333	Berat Badan N
294	14	103	15,7	2020-05-10...	52	-0,65	-0,590909090909091	-0,384615384615385	Berat Badan N
295	15	105	16	2020-05-10...	54	-0,521739130434783	-0,260869565217391	-0,533333333333334	Berat Badan N
296	16	104	17	2020-05-10...	51	-0,153846153846153	-0,113636363636363	-0,352941176470588	Berat Badan N
297	17	100	14	2020-05-10...	51	-1,23809523809524	-1,02272727272727	-0,923076923076923	Berat Badan N
298	18	100	15,7	2020-05-10...	50	-0,5	-1,04761904761905	-0,23076923076923	Berat Badan N
299	19	100	13,2	2020-05-10...	48	-1,38095238095238	-0,627906976744187	-1,53846153846154	Berat Badan N
300	20	105	15,6	2020-05-10...	48	-0,368421052631579	-0,404761904761905	-0,923076923076923	Berat Badan N
301	21	102	15,4	2020-05-10...	47	-0,25	-0,0238095238095225	-0,307692307692308	Berat Badan N
302	22	99	14,2	2020-05-10...	47	-0,850000000000001	-0,738095238095239	-0,583333333333334	Berat Badan N
303	23	110	18,6	2020-05-10...	46	-1,20833333333333	-1,97674418604651	0	Berat Badan N
304	24	103	16,2	2020-05-10...	46	-0,208333333333333	-0,348837209302326	-0,0624999999999988	Berat Badan N
305	25	93	13,4	2020-05-10...	46	-1,15	-2,02380952380952	0	Berat Badan N
306	26	104	15,9	2020-05-10...	46	-0,0526315789473682	-0,439024390243902	-0,461538461538461	Berat Badan N
307	27	100	13,5	2020-05-10...	44	-1,15789473684211	-0,25	-1,58333333333333	Berat Badan N
308	28	91	14,3	2020-05-10...	44	-0,526315789473684	-2,26829268292683	-1,16666666666667	Berat Badan N
309	29	97	14,5	2020-05-10...	43	-0,368421052631579	-0,658536585365853	-0,0714285714285712	Berat Badan N
310	30	100	13,9	2020-05-10...	42	-0,578947368421052	-0,243902439024391	-1	Berat Badan N
311	31	94	13,2	2020-05-10...	43	-1,05263157894737	-1,39024390243902	-0,363636363636364	Berat Badan N
312	32	97	13,5	2020-05-10...	42	-0,789473684210526	-0,5	-0,75	Berat Badan N
313	33	99	11	2020-05-10...	42	-2,10526315789474	0	-3,25	Berat Badan K
314	34	100	16,5	2020-05-10...	41	-0,80952380952381	-0,399999999999999	-0,866666666666667	Berat Badan N
315	35	101	14,5	2020-05-10...	39	-0,176470588235294	-0,789473684210527	-0,916666666666667	Berat Badan N
316	36	97	11,6	2020-05-10...	37	-1,5	-0,333333333333333	-2,33333333333333	Berat Badan N
317	37	100	12,3	2020-05-10...	36	-1,25	-1,05405405405405	-2,58333333333333	Berat Badan N
318	38	92	12,3	2020-05-10...	35	-0,823529411764705	-0,631578947368421	-0,727272727272727	Berat Badan N
319	39	100	12,5	2020-05-10...	34	-0,625	-1,68421052631579	-2,07692307692308	Berat Badan N
320	40	90	11,6	2020-05-10...	34	-1,5	-1,2972972972973	-1,3	Berat Badan N
321	41	88	12,1	2020-05-10...	33	-1,13333333333333	-1,69444444444445	-0,333333333333334	Berat Badan N
322	42	92	13,3	2020-05-10...	37	-0,4375	-0,973684210526317	-0,153846153846155	Berat Badan N
323	43	96	13,6	2020-05-10...	33	-0,166666666666666	-0,837837837837839	-0,416666666666667	Berat Badan N
324	44	91	11,5	2020-05-10...	35	-1,6875	-1,22222222222222	-1,6	Berat Badan N
325	45	82	11,5	2020-05-10...	31	-1,33333333333333	-3,05714285714286	-0,555555555555555	Berat Badan N
326	46	90	11,5	2020-05-10...	31	-0,933333333333334	-0,400000000000002	-1,1	Berat Badan N
327	47	89	11,7	2020-05-10...	29	-0,571428571428572	-0,257142857142859	-0,700000000000001	Berat Badan N
328	48	81	10,5	2020-05-10...	28	-1,71428571428571	-2,84848484848484	-0,333333333333334	Berat Badan N
329	49	90	13,9	2020-05-10...	30	-0,705882352941177	-0,194444444444445	-1,08333333333333	Berat Badan N
330	50	91	10,3	2020-05-10...	30	-2	-0,264705882352942	-2,8	Berat Badan N
331	51	95	12,3	2020-05-10...	28	0	-1,73529411764706	-1,33333333333333	Berat Badan N
332	52	80	12,7	2020-05-10...	29	-0,117647058823529	-2,82857142857143	-2,5	Berat Badan N
333	53	90	12,8	2020-05-10...	28	-0,294117647058824	-0,264705882352942	-0,166666666666667	Berat Badan N
334	54	92	12,7	2020-05-10...	27	-0,375	-1,08823529411765	-0,363636363636364	Berat Badan N
335	55	93	15,6	2020-05-10...	25	-2,13333333333333	-1,61290322580645	-1,81818181818182	Berat Badan K
336	56	92	11,6	2020-05-10...	25	-0,571428571428572	-1,29032258064516	-1,63636363636364	Berat Badan N
337	57	84	10,2	2020-05-10...	25	-1,07142857142857	-0,787878787878787	-1	Berat Badan N
338	58	86	9,5	2020-05-10...	24	-1,53846153846154	-0,125000000000002	-2,33333333333333	Berat Badan N
339	59	89	11,3	2020-05-10...	25	-0,785714285714285	-0,322580645161291	-1,44444444444444	Berat Badan N
340	60	85	10,8	2020-05-10...	25	-1,14285714285714	-0,967741935483873	-1	Berat Badan N
341	61	88	12,1	2020-05-10...	24	-0,0714285714285712	-0,0645161290322588	-0,333333333333334	Berat Badan N
342	62	82	12	2020-05-10...	23	0	-1,63333333333334	-1,2	Berat Badan N
343	63	80	9,7	2020-05-10...	23	-1,23076923076923	-1,71875	-0,444444444444445	Berat Badan N
344	64	83	11,5	2020-05-10...	22	-0,285714285714286	-0,516129032258064	-0,727272727272727	Berat Badan N
345	65	83	10,9	2020-05-10...	24	-0,461538461538461	-1,0625	0	Berat Badan N
346	66	92	12,1	2020-05-10...	23	-0,533333333333333	-2,03125	-0,818181818181819	Berat Badan N
347	67	86	10,7	2020-05-10...	22	-0,846153846153847	0	-1,11111111111111	Berat Badan N
348	68	82	10,8	2020-05-10...	20	-0,133333333333334	-0,233333333333334	-0,300000000000001	Berat Badan N
349	69	81	9,3	2020-05-10...	22	-1,92307692307692	-1,72413793103448	-1,625	Berat Badan N
350	70	73	7,6	2020-05-10...	15	-2,45454545454545	-2,44	-2,14285714285715	Berat Badan K

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id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
351	1	117	21	2020-06-10...	59	-1	-1,72340425531915	-0,105263157894737	Berat Badan N
352	2	116	18,1	2020-06-10...	60	-0,0869565217391301	-1,30434782608696	-1,5	Berat Badan N
353	3	108	16,4	2020-06-10...	60	-0,82608695652174	-0,425531914893617	-1	Berat Badan N
354	4	117	17,5	2020-06-10...	60	-0,347826086956522	-1,52173913043478	-1,94736842105263	Berat Badan N
355	5	115	17	2020-06-10...	59	-0,416666666666667	-1,29787234042553	-1,94736842105263	Berat Badan N
356	6	119	17	2020-06-10...	59	-0,521739130434783	-2,08695652173913	-2,5	Berat Badan N
357	7	112	17,4	2020-06-10...	53	-0,083333333333333	-1,34090909090909	-1,125	Berat Badan N
358	8	109	17	2020-06-10...	55	-0,238095238095238	-0,399999999999999	-0,8	Berat Badan N
359	9	110	17,3	2020-06-10...	55	-0,0952380952380949	-0,622222222222222	-0,8	Berat Badan N
360	10	108	16,6	2020-06-10...	55	-0,318181818181818	-0,282608695652174	-0,8	Berat Badan N
361	11	103	15	2020-06-10...	54	-1,09523809523809	-0,84090909090909	-0,923076923076923	Berat Badan N
362	12	105	15,2	2020-06-10...	53	-0,818181818181819	-0,133333333333332	-1,06666666666667	Berat Badan N
363	13	97	14,7	2020-06-10...	53	-1,04545454545455	-1,91111111111111	-0,214285714285713	Berat Badan N
364	14	104	15,5	2020-06-10...	53	-0,809523809523809	-0,477272727272727	-0,769230769230769	Berat Badan N
365	15	108	16,1	2020-06-10...	55	-0,545454545454545	-0,282608695652174	-1,13333333333333	Berat Badan N
366	16	105	17,1	2020-06-10...	52	-0,115384615384616	0	-0,187500000000001	Berat Badan N
367	17	100	15,1	2020-06-10...	52	-0,772727272727273	-1,13636363636363	-0,0769230769230767	Berat Badan N
368	18	100	15,3	2020-06-10...	51	-0,75	-1,16279069767442	-0,083333333333333	Berat Badan N
369	19	102	13,5	2020-06-10...	49	-1,33333333333333	-0,302325581395348	-1,76923076923077	Berat Badan N
370	20	105	15,5	2020-06-10...	49	-0,5	-0,261904761904761	-1	Berat Badan N
371	21	103	15,6	2020-06-10...	48	-0,238095238095239	-0,0697674418604645	-0,357142857142858	Berat Badan N
372	22	100	14,7	2020-06-10...	48	-0,666666666666667	-0,627906976744187	-0,384615384615385	Berat Badan N
373	23	107	18,7	2020-06-10...	47	-1,16666666666667	-1,13953488372093	-0,705882352941176	Berat Badan N
374	24	104	16,5	2020-06-10...	47	-0,25	-0,441860465116279	-0,0588235294117654	Berat Badan N
375	25	95	13,3	2020-06-10...	47	-1,3	-1,69047619047619	-0,499999999999999	Berat Badan N
376	26	105	16	2020-06-10...	47	-0,105263157894737	-0,536585365853658	-0,615384615384616	Berat Badan N
377	27	100	13,7	2020-06-10...	45	-1,16666666666667	-0,390243902439024	-1,41666666666667	Berat Badan N
378	28	92	14,4	2020-06-10...	45	-0,578947368421052	-2,11904761904762	-1	Berat Badan N
379	29	98	14,6	2020-06-10...	44	-0,368421052631579	-0,560975609756098	-0,0769230769230767	Berat Badan N
380	30	100	14,1	2020-06-10...	43	-0,578947368421053	-0,0731707317073165	-0,846153846153847	Berat Badan N
381	31	95	13,9	2020-06-10...	44	-0,736842105263158	-1,29268292682927	0	Berat Badan N
382	32	98	13,7	2020-06-10...	43	-0,789473684210527	-0,414634146341463	-0,76923076923077	Berat Badan N
383	33	100	11	2020-06-10...	43	-2,21052631578947	-0,0731707317073165	-3,23076923076923	Berat Badan K
384	34	100	16,7	2020-06-10...	42	-0,772727272727273	-0,243902439024391	-1	Berat Badan N
385	35	101	15,7	2020-06-10...	40	-0,35	-0,615384615384616	-0,0714285714285712	Berat Badan N
386	36	98	11,9	2020-06-10...	38	-1,35294117647059	-0,41025641025641	-2,15384615384615	Berat Badan N
387	37	100	12,3	2020-06-10...	37	-1,375	-0,868421052631579	-2,58333333333333	Berat Badan N
388	38	94	12,5	2020-06-10...	36	-0,823529411764706	-0,282051282051281	-1	Berat Badan N
389	39	100	12,7	2020-06-10...	35	-0,588235294117647	-1,51351351351352	-1,92307692307692	Berat Badan N
390	40	91	11,8	2020-06-10...	35	-1,5	-1,22222222222222	-1,3	Berat Badan N
391	41	88	12,3	2020-06-10...	34	-1,0625	-1,83783783783784	-0,111111111111111	Berat Badan N
392	42	92	13,5	2020-06-10...	38	-0,411764705882353	-1,12820512820513	-0,307692307692308	Berat Badan N
393	43	98	13,6	2020-06-10...	34	-0,0526315789473682	-1,1578947368421	-0,846153846153847	Berat Badan N
394	44	92	12	2020-06-10...	36	-1,4375	-1,10810810810811	-1,27272727272727	Berat Badan N
395	45	84	11,4	2020-06-10...	32	-1,4375	-2,68571428571429	0	Berat Badan N
396	46	91	11,7	2020-06-10...	32	-0,933333333333334	-0,333333333333333	-1,09090909090909	Berat Badan N
397	47	84	10,5	2020-06-10...	30	-1,46666666666667	-1,86111111111111	-0,666666666666666	Berat Badan N
398	48	82	10,7	2020-06-10...	29	-1,71428571428571	-2,70588235294117	-0,333333333333334	Berat Badan N
399	49	93	14,2	2020-06-10...	31	-0,722222222222222	-0,444444444444444	-0,615384615384615	Berat Badan N
400	50	91	10,6	2020-06-10...	31	-1,93333333333333	-0,485714285714287	-2,5	Berat Badan N
401	51	97	12,7	2020-06-10...	29	-0,117647058823529	-2,02857142857143	-1,41666666666667	Berat Badan N
402	52	82	12,6	2020-06-10...	30	-0,0666666666666664	-2,41666666666666	-1,9	Berat Badan N
403	53	90	13,2	2020-06-10...	29	-0,411764705882353	-0,0285714285714269	-0,499999999999999	Berat Badan N
404	54	94	12,5	2020-06-10...	28	-0,117647058823529	-1,44117647058823	-1	Berat Badan N
405	55	95	15,4	2020-06-10...	26	-1,8125	-1,9375	-1,08333333333333	Berat Badan N
406	56	82	11,9	2020-06-10...	26	-0,461538461538461	-2,125	-1	Berat Badan N
407	57	84	10,5	2020-06-10...	26	-1	-1,03030303030303	-0,666666666666666	Berat Badan N
408	58	86	9,7	2020-06-10...	25	-1,42857142857143	-0,18181818181818	-2,11111111111111	Berat Badan N
409	59	90	11,5	2020-06-10...	26	-0,769230769230769	-0,375000000000001	-1,4	Berat Badan N
410	60	87	11,1	2020-06-10...	26	-1,07692307692308	-0,562499999999999	-1,1	Berat Badan N
411	61	88	12,3	2020-06-10...	25	-0,0714285714285712	0	-0,111111111111111	Berat Badan N
412	62	90	13,3	2020-06-10...	24	-0,785714285714287	-0,709677419354838	-0,363636363636364	Berat Badan N
413	63	80	9,9	2020-06-10...	24	-1,23076923076923	-2	-0,374999999999999	Berat Badan N
414	64	83	11,5	2020-06-10...	23	-0,133333333333333	-0,781249999999999	-0,727272727272727	Berat Badan N
415	65	83	10,9	2020-06-10...	25	-0,571428571428571	-1,09090909090909	0	Berat Badan N
416	66	92	12,3	2020-06-10...	24	-0,533333333333334	-1,75	-0,727272727272727	Berat Badan N
417	67	87	10,7	2020-06-10...	23	-1	-0,0333333333333314	-1,44444444444444	Berat Badan N
418	68	82	10,9	2020-06-10...	21	0	-0,548387096774193	-0,4	Berat Badan N
419	69	81	9,5	2020-06-10...	23	-1,92307692307692	-1,96666666666667	-1,375	Berat Badan N
420	70	74	7,8	2020-06-10...	16	-2,45454545454546	-2,38461538461538	-2,14285714285714	Berat Badan K

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id	id_balita		tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
421	7		113	17,8	2020-07-10...	54	-0,2	-1,43181818181818	-1,125	Berat Badan N
422	8		100	17,1	2020-07-10...	56	-0,272727272727272	-1,73333333333333	-1,30769230769231	Berat Badan N
423	9		110	17,3	2020-07-10...	56	-0,181818181818181	-0,48888888888889	-0,8	Berat Badan N
424	10		109	16,7	2020-07-10...	56	-0,347826086956522	-0,369565217391304	-0,937500000000001	Berat Badan N
425	11		103	15,3	2020-07-10...	55	-1,04761904761905	-0,954545454545454	-0,692307692307692	Berat Badan N
426	12		105	15,7	2020-07-10...	54	-0,652173913043479	-0,260869565217391	-0,733333333333334	Berat Badan N
427	13		97	14,8	2020-07-10...	54	-1,04347826086957	-2	-0,285714285714286	Berat Badan N
428	14		105	17,4	2020-07-10...	54	-0,0399999999999991	-0,386363636363637	-0,374999999999999	Berat Badan N
429	15		108	16,3	2020-07-10...	56	-0,521739130434782	-0,152173913043479	-1	Berat Badan N
430	16		105	16,9	2020-07-10...	53	-0,0454545454545461	-0,133333333333332	-0,0624999999999988	Berat Badan N
431	17		103	15,7	2020-07-10...	53	-0,590909090909091	-0,577777777777777	-0,285714285714287	Berat Badan N
432	18		102	14,7	2020-07-10...	52	-1,15	-0,818181818181818	-1	Berat Badan N
433	19		102	13,7	2020-07-10...	50	-1,28571428571429	-0,431818181818183	-1,61538461538462	Berat Badan N
434	20		105	15,3	2020-07-10...	50	-0,699999999999999	-0,139534883720929	-1,15384615384615	Berat Badan N
435	21		103	15,9	2020-07-10...	49	-0,190476190476191	-0,0697674418604645	-0,142857142857143	Berat Badan N
436	22		100	14,9	2020-07-10...	49	-0,666666666666666	-0,767441860465116	-0,23076923076923	Berat Badan N
437	23		107	18,4	2020-07-10...	48	-0,958333333333333	-1	-0,529411764705882	Berat Badan N
438	24		104	16,7	2020-07-10...	48	-0,249999999999999	-0,302325581395348	-0,176470588235294	Berat Badan N
439	25		94	13	2020-07-10...	48	-1,47619047619048	-2,02325581395349	-0,545454545454545	Berat Badan N
440	26		102	16,7	2020-07-10...	48	-0,17391304347826	-0,309523809523809	-0,571428571428571	Berat Badan N
441	27		101	13,9	2020-07-10...	46	-1,10526315789474	-0,292682926829268	-1,41666666666667	Berat Badan N
442	28		93	14,6	2020-07-10...	46	-0,55	-2,02380952380952	-0,923076923076923	Berat Badan N
443	29		99	14,8	2020-07-10...	45	-0,368421052631579	-0,452380952380953	-0,083333333333333	Berat Badan N
444	30		100	14,4	2020-07-10...	44	-0,473684210526316	-0,0731707317073165	-0,615384615384615	Berat Badan N
445	31		95	14,3	2020-07-10...	45	-0,631578947368421	-1,40476190476191	-0,307692307692308	Berat Badan N
446	32		98	14,7	2020-07-10...	44	-0,315789473684211	-0,560975609756098	0	Berat Badan N
447	33		100	11,2	2020-07-10...	44	-2,15789473684211	-0,0731707317073165	-3,07692307692308	Berat Badan K
448	34		101	16,7	2020-07-10...	43	-0,681818181818182	-0,317073170731707	-0,8	Berat Badan N
449	35		101	16,1	2020-07-10...	41	-0,450000000000001	-0,449999999999999	-0,357142857142858	Berat Badan N
450	36		98	12,1	2020-07-10...	39	-1,35294117647059	-0,230769230769232	-2	Berat Badan N
451	37		101	13,1	2020-07-10...	38	-0,941176470588235	-0,947368421052631	-2,08333333333333	Berat Badan N
452	38		94	12,7	2020-07-10...	37	-0,812500000000001	-0,447368421052633	-0,818181818181819	Berat Badan N
453	39		100	12,6	2020-07-10...	36	-0,764705882352941	-1,28947368421052	-2	(NULL)
454	40		91	11,9	2020-07-10...	36	-1,5	-1,37837837837838	-1,2	Berat Badan N
455	41		89	13	2020-07-10...	35	-0,75	-1,77777777777778	-0,363636363636364	Berat Badan N
456	42		94	14	2020-07-10...	39	-0,23529411764706	-0,775	-0,307692307692308	Berat Badan N
457	43		98	14,1	2020-07-10...	35	-0,210526315789474	-0,972972972972974	-0,461538461538462	Berat Badan N
458	44		92	12,4	2020-07-10...	37	-1,3125	-1,27027027027027	-0,909090909090909	Berat Badan N
459	45		84	12,3	2020-07-10...	33	-1	-2,80555555555556	-0,9	Berat Badan N
460	46		91	11,3	2020-07-10...	33	-1,25	-0,527777777777778	-1,45454545454545	Berat Badan N
461	47		85	10,2	2020-07-10...	31	-1,8	-1,82857142857143	-1,2	Berat Badan N
462	48		84	10,7	2020-07-10...	30	-1,73333333333333	-2,3235294117647	-0,777777777777779	Berat Badan N
463	49		93	14,4	2020-07-10...	32	-0,722222222222222	-0,222222222222222	-0,76923076923077	Berat Badan N
464	50		91	11,1	2020-07-10...	32	-1,625	-0,685714285714287	-2	Berat Badan N
465	51		97	13,1	2020-07-10...	30	-0,235294117647059	-1,8	-1,08333333333333	Berat Badan N
466	52		83	12,7	2020-07-10...	31	-0,133333333333334	-2,4	-1,8	Berat Badan N
467	53		90	13,1	2020-07-10...	30	-0,235294117647059	-0,194444444444445	-0,416666666666666	Berat Badan N
468	54		95	13,3	2020-07-10...	29	-0,470588235294118	-1,45714285714286	-0,499999999999999	Berat Badan N
469	55		95	15,6	2020-07-10...	27	-1,8125	-1,63636363636363	-1,25	Berat Badan N
470	56		83	12	2020-07-10...	27	-0,5	-2,06250000000001	-0,800000000000001	Berat Badan N
471	57		84	11	2020-07-10...	27	-0,785714285714285	-1,26470588235294	-0,111111111111111	Berat Badan N
472	58		86	10,3	2020-07-10...	26	-1,14285714285714	-0,424242424242425	-1,44444444444444	Berat Badan N
473	59		90	11,9	2020-07-10...	27	-0,571428571428571	-0,121212121212123	-1	Berat Badan N
474	60		87	11,2	2020-07-10...	27	-1,07142857142857	-0,812500000000001	-1	Berat Badan N
475	61		88	12,3	2020-07-10...	26	-0,153846153846153	-0,249999999999999	-0,111111111111111	Berat Badan N
476	62		90	13,3	2020-07-10...	25	-0,6	-0,645161290322582	-0,363636363636364	Berat Badan N
477	63		81	11,3	2020-07-10...	25	-0,285714285714285	-1,6969696969697	-0,9	Berat Badan N
478	64		83	11,7	2020-07-10...	24	-0,133333333333333	-1,0625	-0,799999999999999	Berat Badan N
479	65		86	11,7	2020-07-10...	26	-0,142857142857144	-0,424242424242425	-0,0909090909090906	Berat Badan N
480	66		92	12,1	2020-07-10...	25	-0,25	-1,63636363636363	-0,909090909090909	Berat Badan N
481	67		87	10,4	2020-07-10...	24	-1,28571428571429	-0,266666666666666	-1,8	Berat Badan N
482	68		81	10,3	2020-07-10...	22	-0,615384615384615	-1,16129032258065	0	Berat Badan N
483	69		81	9,7	2020-07-10...	24	-1,78571428571429	-2,26666666666667	-1,22222222222222	Berat Badan N
484	70		74	8,7	2020-07-10...	17	-1,81818181818182	-2,76923076923076	-0,857142857142858	Berat Badan N

Bulan Agustus

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491	7		115	18	2020-08-10...	55	-0,2	-1,73333333333333	-1,33333333333333	Berat Badan N
492	8		100	17,2	2020-08-10...	57	-0,272727272727273	-1,84444444444444	-1,38461538461538	Berat Badan N
493	9		111	18,8	2020-08-10...	57	-0,384615384615385	-0,600000000000001	-0,0624999999999988	Berat Badan N
494	10		109	17,5	2020-08-10...	57	-0,0833333333333331	-0,255319148936171	-0,4375	Berat Badan N
495	11		105	16,7	2020-08-10...	56	0,34782608695652	0,5	-0,076923076923078	Berat Badan N
496	12		106	15,8	2020-08-10...	55	-0,681818181818181	-0,155555555555556	-0,866666666666666	Berat Badan N
497	13		102	14,5	2020-08-10...	55	-1,27272727272727	-1,04444444444445	-1	Berat Badan N
498	14		110	17,2	2020-08-10...	55	-0,142857142857143	-0,622222222222222	-0,866666666666667	Berat Badan N
499	16		106	17,7	2020-08-10...	54	-0,185185185185185	-0,0434782608695658	-0,352941176470587	Berat Badan N
500	17		107	16	2020-08-10...	54	-0,521739130434783	-0,177777777777777	-0,9375	Berat Badan N
501	18		102	14,5	2020-08-10...	53	-1,28571428571429	-0,931818181818182	-1,16666666666667	Berat Badan N
502	19		103	13,1	2020-08-10...	51	-1,66666666666667	-0,34090909090909	-2,14285714285714	Berat Badan N
503	20		105	17	2020-08-10...	51	-0,0833333333333331	0	-0,125	Berat Badan N
504	21		106	15	2020-08-10...	50	-0,666666666666667	-0,477272727272727	-1,4	Berat Badan N
505	22		102	15,5	2020-08-10...	50	-0,428571428571428	-0,431818181818183	-0,230769230769231	Berat Badan N
506	23		107	16,5	2020-08-10...	49	-0,0799999999999997	-0,84090909090909	-0,625	Berat Badan N
507	24		100	15,7	2020-08-10...	49	-0,285714285714286	-0,767441860465116	-0,333333333333333	Berat Badan N
508	25		102	13,5	2020-08-10...	49	-1,33333333333333	-0,302325581395348	-1,76923076923077	Berat Badan N
509	26		104	16,6	2020-08-10...	49	-0,0434782608695658	-0,0238095238095225	-0,0666666666666676	Berat Badan N
510	27		101	15,3	2020-08-10...	47	-0,473684210526315	-0,428571428571428	-0,249999999999999	Berat Badan N
511	28		93	14,8	2020-08-10...	47	-0,55	-2,16666666666667	-1,07692307692308	Berat Badan N
512	29		100	14,7	2020-08-10...	46	-0,5	-0,357142857142857	-0,384615384615385	Berat Badan N
513	30		100	14,7	2020-08-10...	45	-0,421052631578948	-0,214285714285715	-0,384615384615385	Berat Badan N
514	31		97	14,2	2020-08-10...	46	-0,75	-1,07142857142857	-0,166666666666667	Berat Badan N
515	32		101	14	2020-08-10...	45	-0,789473684210526	-0,0238095238095225	-1,15384615384615	Berat Badan N
516	33		100	12	2020-08-10...	45	-1,84210526315789	-0,214285714285715	-2,46153846153846	Berat Badan N
517	34		101	16,9	2020-08-10...	44	-0,695652173913042	-0,166666666666667	-0,933333333333332	Berat Badan N
518	35		101	16,5	2020-08-10...	42	-0,571428571428572	-0,282051282051281	-0,642857142857143	Berat Badan N
519	36		100	12,4	2020-08-10...	40	-1,22222222222222	-0,574999999999999	-2,15384615384615	Berat Badan N
520	37		101	13,5	2020-08-10...	39	-0,764705882352941	-0,789473684210527	-1,75	Berat Badan N
521	38		95	12,4	2020-08-10...	38	-1,05882352941176	-0,35897435897436	-1,25	Berat Badan N
522	39		100	13,5	2020-08-10...	37	-0,3125	-1,1025641025641	-1,30769230769231	Berat Badan N
523	40		92	12,2	2020-08-10...	37	-1,4375	-1,27027027027027	-1,09090909090909	Berat Badan N
524	41		95	13,5	2020-08-10...	36	-0,5	-0,297297297297297	-0,545454545454545	Berat Badan N
525	42		95	14,4	2020-08-10...	40	-0,111111111111111	-0,692307692307692	-0,384615384615385	Berat Badan N
526	43		102	14,7	2020-08-10...	36	-0,421052631578947	-1,81578947368421	-0,846153846153847	Berat Badan N
527	44		95	13	2020-08-10...	38	-1	-0,631578947368421	-1	Berat Badan N
528	45		85	13,5	2020-08-10...	34	-0,3125	-2,64864864864865	-1,8	Berat Badan N
529	46		101	16,7	2020-08-10...	34	-1,68421052631579	-1,94736842105263	-0,8	Berat Badan N
530	47		88	11,9	2020-08-10...	32	-0,8	-1,16666666666666	-0,199999999999999	Berat Badan N
531	48		84	11,3	2020-08-10...	31	-1,46666666666667	-2,48571428571429	-0,111111111111111	Berat Badan N
532	49		93	14,3	2020-08-10...	33	-0,555555555555556	-0,0270270270270256	-0,692307692307693	Berat Badan N
533	50		91	13,5	2020-08-10...	33	-0,2	-0,861111111111111	-0,363636363636364	Berat Badan N
534	51		97	14	2020-08-10...	31	-0,611111111111111	-1,55555555555556	-0,333333333333333	Berat Badan N
535	52		85	14,3	2020-08-10...	32	-0,666666666666667	-2	-2,63636363636364	Berat Badan N
536	53		93	14,5	2020-08-10...	31	-0,888888888888889	-0,444444444444444	-0,846153846153847	Berat Badan N
537	54		95	11,6	2020-08-10...	30	-0,733333333333333	-1,22857142857143	-1,91666666666667	Berat Badan N
538	55		96	16	2020-08-10...	28	-1,9375	-1,6969696969697	-1,41666666666667	Berat Badan N
539	56		83	12	2020-08-10...	28	-0,642857142857143	-2,24242424242424	-0,800000000000001	Berat Badan N
540	57		87	10,3	2020-08-10...	28	-1,42857142857143	-0,617647058823529	-1,6	Berat Badan N
541	58		86	10,5	2020-08-10...	27	-1,14285714285714	-0,676470588235295	-1,22222222222222	Berat Badan N
542	59		90	12	2020-08-10...	28	-0,642857142857143	-0,121212121212123	-0,9	Berat Badan N
543	60		90	12,4	2020-08-10...	28	-0,357142857142857	-0,121212121212123	-0,5	Berat Badan N
544	61		88	12,5	2020-08-10...	27	-0,142857142857142	-0,5	-0,0909090909090906	Berat Badan N
545	62		91	13	2020-08-10...	26	-0,3125	-0,6875	-0,0999999999999996	Berat Badan N
546	63		81	11	2020-08-10...	26	-0,642857142857143	-1,93939393939393	-0,6	Berat Badan N
547	64		85	10,5	2020-08-10...	25	-0,857142857142858	-0,484848484848484	-0,9	Berat Badan N
548	65		86	11,9	2020-08-10...	27	-0,142857142857142	-0,676470588235295	-0,272727272727273	Berat Badan N
549	66		93	12,5	2020-08-10...	26	-0,375	-1,64705882352941	-0,818181818181819	Berat Badan N
550	67		88	10,4	2020-08-10...	25	-1,42857142857143	0	-2,22222222222222	Berat Badan N
551	68		84	10,9	2020-08-10...	23	-0,307692307692308	-0,46875	-0,111111111111111	Berat Badan N
552	69		81	9,6	2020-08-10...	25	-2	-2,25806451612904	-1,33333333333333	Berat Badan N
553	70		78	8,7	2020-08-10...	18	-2	-1,59259259259259	-1,75	Berat Badan N

Bulan September

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554	7	115	18,8	2020-09-10...	56	-0,440000000000001	-1,6	-0,888888888888889	Berat Badan N
555	8	111	17,5	2020-09-10...	58	-0,227272727272727	-0,466666666666665	-0,875	Berat Badan N
556	9	112	19,4	2020-09-10...	58	-0,538461538461538	-0,688888888888888	-0,105263157894736	Berat Badan N
557	10	110	17,6	2020-09-10...	58	-0,124999999999999	-0,347826086956521	-0,624999999999999	Berat Badan N
558	11	107	16,8	2020-09-10...	57	-0,454545454545454	-0,288888888888888	-0,5	Berat Badan N
559	12	107	16	2020-09-10...	56	-0,652173913043478	-0,0652173913043473	-0,9375	Berat Badan N
560	13	102	14,5	2020-09-10...	56	-1,30434782608696	-1,15217391304348	-1	Berat Badan N
561	14	111	17,5	2020-09-10...	56	-0,0909090909090906	-0,711111111111112	-0,875	Berat Badan N
562	16	106	17,9	2020-09-10...	55	-0,214285714285713	-0,155555555555556	-0,470588235294116	Berat Badan N
563	17	107	16,2	2020-09-10...	55	-0,5	-0,0652173913043473	-0,812500000000001	Berat Badan N
564	18	104	15,3	2020-09-10...	54	-0,952380952380952	-0,613636363636363	-0,923076923076922	Berat Badan N
565	19	103	13,3	2020-09-10...	52	-1,59090909090909	-0,454545454545454	-2	Berat Badan N
566	20	104	15,8	2020-09-10...	52	-0,6	-0,363636363636363	-0,538461538461538	Berat Badan N
567	21	108	15,3	2020-09-10...	51	-0,619047619047619	-0,795454545454544	-1,66666666666667	Berat Badan N
568	22	103	15,7	2020-09-10...	51	-0,428571428571429	-0,34090909090909	-0,285714285714287	Berat Badan N
569	23	108	17,9	2020-09-10...	50	-0,576923076923077	-0,931818181818182	-0,0555555555555543	Berat Badan N
570	24	106	17,8	2020-09-10...	50	-0,538461538461539	-0,477272727272727	-0,411764705882353	Berat Badan N
571	25	102	13,5	2020-09-10...	50	-1,38095238095238	-0,431818181818183	-1,76923076923077	Berat Badan N
572	26	106	17,8	2020-09-10...	50	-0,478260869565218	-0,372093023255813	-0,400000000000001	Berat Badan N
573	27	102	13,9	2020-09-10...	48	-1,26315789473684	-0,309523809523809	-1,66666666666667	Berat Badan N
574	28	95	12,2	2020-09-10...	48	-1,85714285714286	-1,79069767441861	-1,41666666666667	Berat Badan N
575	29	100	15,8	2020-09-10...	47	-0,0499999999999998	-0,5	-0,400000000000001	Berat Badan N
576	30	101	14,8	2020-09-10...	46	-0,449999999999999	-0,119047619047619	-0,538461538461538	Berat Badan N
577	31	100	13,8	2020-09-10...	47	-1,05	-0,5	-1,07692307692308	Berat Badan N
578	32	102	14,2	2020-09-10...	46	-0,75	-0,116279069767442	-1,23076923076923	Berat Badan N
579	33	100	11,5	2020-09-10...	46	-2,1	-0,357142857142857	-2,84615384615385	Berat Badan K
580	34	102	17	2020-09-10...	45	-0,652173913043478	-0,261904761904761	-0,750000000000001	Berat Badan N
581	35	103	15,8	2020-09-10...	43	-0,142857142857143	-0,634146341463414	-0,307692307692307	Berat Badan N
582	36	100	12,4	2020-09-10...	41	-1,33333333333333	-0,399999999999999	-2,15384615384615	Berat Badan N
583	37	102	13,8	2020-09-10...	40	-0,705882352941176	-0,871794871794872	-1,75	Berat Badan N
584	38	96	12,7	2020-09-10...	39	-1	-0,274999999999999	-1,16666666666667	Berat Badan N
585	39	101	14,4	2020-09-10...	38	-0,0952380952380957	-1,17948717948718	-0,846153846153845	Berat Badan N
586	40	94	12	2020-09-10...	38	-1,58823529411765	-0,894736842105262	-1,8	Berat Badan N
587	41	96	13,5	2020-09-10...	37	-0,625	-0,18918918918919	-0,727272727272727	Berat Badan N
588	42	96	14,6	2020-09-10...	41	-0,111111111111112	-0,600000000000001	-0,357142857142857	Berat Badan N
589	43	102	14,4	2020-09-10...	37	-0,2	-1,61538461538462	-1,07692307692308	Berat Badan N
590	44	97	13,9	2020-09-10...	39	-0,529411764705882	-0,263157894736842	-0,583333333333333	Berat Badan N
591	45	86	13,7	2020-09-10...	35	-0,3125	-2,61111111111111	-1,8	Berat Badan N
592	46	101	17,5	2020-09-10...	35	-2	-1,78378378378379	-1,33333333333333	Berat Badan N
593	47	88	11,9	2020-09-10...	33	-0,874999999999999	-1,36111111111111	-0,199999999999999	Berat Badan N
594	48	86	11,9	2020-09-10...	32	-1,125	-2,11428571428572	0	Berat Badan N
595	49	95	14,5	2020-09-10...	34	-0,526315789473684	-0,368421052631579	-0,461538461538462	Berat Badan N
596	50	92	13,6	2020-09-10...	34	-0,25	-0,756756756756755	-0,181818181818181	Berat Badan N
597	51	98	14,4	2020-09-10...	32	-0,722222222222222	-1,61111111111111	-0,23076923076923	Berat Badan N
598	52	88	12,2	2020-09-10...	33	-0,6875	-1,36111111111111	-0,083333333333333	Berat Badan N
599	53	93	13,6	2020-09-10...	32	-0,277777777777778	-0,222222222222222	-0,153846153846153	Berat Badan N
600	54	101	14,2	2020-09-10...	31	-0,722222222222222	-2,66666666666667	-1	Berat Badan N
601	55	96	16,2	2020-09-10...	29	-1,8235294117647	-1,45454545454545	-1,58333333333333	Berat Badan N
602	56	83	12,3	2020-09-10...	29	-0,571428571428571	-2,41176470588235	-1,1	Berat Badan N
603	57	87	10,8	2020-09-10...	29	-1,21428571428571	-0,82857142857143	-1,1	Berat Badan N
604	58	86	11,8	2020-09-10...	28	-0,357142857142857	-0,911764705882354	-0,181818181818183	Berat Badan N
605	59	90	11,8	2020-09-10...	29	-0,928571428571428	-0,352941176470588	-1,1	Berat Badan N
606	60	92	13,3	2020-09-10...	29	-0,11764705882353	-0,242424242424242	-0,0909090909090906	Berat Badan N
607	61	89	12,6	2020-09-10...	28	-0,214285714285715	-0,424242424242425	0	Berat Badan N
608	62	91	13	2020-09-10...	27	-0,1875	-0,424242424242425	-0,0999999999999996	Berat Badan N
609	63	84	11,7	2020-09-10...	27	-0,285714285714286	-1,26470588235294	-0,545454545454545	Berat Badan N
610	64	88	10,5	2020-09-10...	26	-1	-0,176470588235293	-1,6	Berat Badan N
611	65	87	12	2020-09-10...	28	-0,214285714285715	-0,617647058823529	-0,0909090909090906	Berat Badan N
612	66	93	12,6	2020-09-10...	27	-0,3125	-1,38235294117647	-0,727272727272728	Berat Badan N
613	67	88	11	2020-09-10...	26	-1,15384615384615	-0,249999999999999	-1,55555555555556	Berat Badan N
614	68	85	11,6	2020-09-10...	24	-0,0666666666666664	-0,437500000000001	-0,181818181818181	Berat Badan N
615	69	86	9,5	2020-09-10...	26	-2,30769230769231	-0,874999999999998	-2,66666666666667	Berat Badan K
616	70	79	9,1	2020-09-10...	19	-1,81818181818182	-1,55555555555555	-1,5	Berat Badan N

Bulan Oktober

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
616	70	79	9,1	2020-09-10...	19	-1,81818181818182	-1,55555555555555	-1,5	Berat Badan N
617	7	116	18,8	2020-10-10...	57	-0,384615384615385	-1,71111111111111	-1,11111111111111	Berat Badan N
618	8	112	17,8	2020-10-10...	59	-0,17391304347826	-0,565217391304347	-0,875	Berat Badan N
619	9	112	19,5	2020-10-10...	59	-0,5	-0,565217391304347	-0,157894736842105	Berat Badan N
620	10	110	17,6	2020-10-10...	59	-0,166666666666666	-0,234042553191489	-0,624999999999999	Berat Badan N
621	11	107	16,8	2020-10-10...	58	-0,545454545454545	-0,41304347826087	-0,5	Berat Badan N
622	12	107	16,2	2020-10-10...	57	-0,625	-0,17391304347826	-0,812500000000001	Berat Badan N
623	13	103	14,8	2020-10-10...	57	-1,20833333333333	-1,04347826086957	-0,928571428571428	Berat Badan N
624	14	112	17,8	2020-10-10...	57	0	-0,822222222222223	-0,875	Berat Badan N
625	16	107	18,6	2020-10-10...	56	-0,392857142857143	-0,0652173913043473	-0,647058823529413	Berat Badan N
626	17	109	16,5	2020-10-10...	56	-0,434782608695652	-0,369565217391304	-1,0625	Berat Badan N
627	18	105	15,5	2020-10-10...	55	-0,952380952380953	-0,5	-1	Berat Badan N
628	19	104	13,5	2020-10-10...	53	-1,59090909090909	-0,355555555555554	-2,07142857142857	Berat Badan N
629	20	104	16,7	2020-10-10...	53	-0,238095238095238	-0,477272727272727	-0,133333333333333	Berat Badan N
630	21	108	15,5	2020-10-10...	52	-0,590909090909091	-0,666666666666667	-1,53333333333333	Berat Badan N
631	22	104	15,9	2020-10-10...	52	-0,409090909090909	-0,227272727272727	-0,357142857142856	Berat Badan N
632	23	108	18,9	2020-10-10...	51	-0,884615384615384	-0,795454545454544	-0,61111111111111	Berat Badan N
633	24	106	17,9	2020-10-10...	51	-0,499999999999999	-0,34090909090909	-0,470588235294116	Berat Badan N
634	25	102	13,5	2020-10-10...	51	-1,47619047619048	-0,568181818181817	-1,76923076923077	Berat Badan N
635	26	107	18	2020-10-10...	51	-0,5	-0,465116279069768	-0,3125	Berat Badan N
636	27	102	14	2020-10-10...	49	-1,25	-0,452380952380953	-1,58333333333333	Berat Badan N
637	28	95	15,3	2020-10-10...	49	-0,476190476190476	-1,93023255813954	-1,07692307692308	Berat Badan N
638	29	102	16	2020-10-10...	48	-0,0476190476190483	-0,162790697674419	-0,125	Berat Badan N
639	30	102	14,8	2020-10-10...	47	-0,55	-0,0238095238095225	-0,769230769230769	Berat Badan N
640	31	101	14	2020-10-10...	48	-1	-0,395348837209303	-1,15384615384615	Berat Badan N
641	32	104	14,5	2020-10-10...	47	-0,7	-0,441860465116279	-1,35714285714286	Berat Badan N
642	33	101	11,7	2020-10-10...	47	-2,1	-0,261904761904761	-2,92307692307692	Berat Badan K
643	34	102	17,1	2020-10-10...	46	-0,583333333333334	-0,116279069767442	-0,812500000000002	Berat Badan N
644	35	103	16	2020-10-10...	44	-0,142857142857143	-0,487804878048781	-0,153846153846153	Berat Badan N
645	36	101	12,6	2020-10-10...	42	-1,26315789473684	-0,487804878048781	-2,23076923076923	Berat Badan N
646	37	102	13,8	2020-10-10...	41	-0,777777777777777	-0,699999999999999	-1,75	Berat Badan N
647	38	98	12,8	2020-10-10...	40	-1	-0,0749999999999993	-1,46153846153846	Berat Badan N
648	39	101	14,4	2020-10-10...	39	0	-1	-0,846153846153845	Berat Badan N
649	40	96	12,8	2020-10-10...	39	-1,17647058823529	-0,526315789473685	-1,36363636363636	Berat Badan N
650	41	96	13,7	2020-10-10...	38	-0,588235294117647	-0,368421052631579	-0,545454545454546	Berat Badan N
651	42	96	14,6	2020-10-10...	42	-0,210526315789474	-0,75	-0,357142857142857	Berat Badan N
652	43	102	14,7	2020-10-10...	38	-0,238095238095238	-1,43589743589744	-0,846153846153847	Berat Badan N
653	44	98	13,2	2020-10-10...	40	-1,05882352941177	-0,153846153846153	-1,45454545454545	Berat Badan N
654	45	86	13,7	2020-10-10...	36	-0,375000000000001	-2,72972972972974	-1,8	Berat Badan N
655	46	102	17,6	2020-10-10...	36	-1,94736842105263	-1,81578947368421	-1,125	Berat Badan N
656	47	90	12	2020-10-10...	34	-0,9375	-0,972972972972974	-0,6	Berat Badan N
657	48	86	11,9	2020-10-10...	33	-1,26666666666667	-2,25	0	Berat Badan N
658	49	95	11,7	2020-10-10...	35	-1,17647058823529	-0,162162162162161	-1,83333333333333	Berat Badan N
659	50	92	13,6	2020-10-10...	35	-0,375	-0,944444444444444	-0,181818181818181	Berat Badan N
660	51	98	14,4	2020-10-10...	33	-0,611111111111111	-1,37837837837838	-0,23076923076923	Berat Badan N
661	52	88	12,2	2020-10-10...	34	-0,812500000000001	-1,51351351351352	-0,083333333333333	Berat Badan N
662	53	94	14,7	2020-10-10...	33	-0,777777777777777	-0,297297297297297	-0,846153846153845	Berat Badan N
663	54	101	14,2	2020-10-10...	32	-0,611111111111111	-2,44444444444445	-1	Berat Badan N
664	55	96	16,4	2020-10-10...	30	-1,82352941176471	-1,20588235294118	-1,75	Berat Badan N
665	56	85	12,4	2020-10-10...	30	-0,6	-2,02941176470588	-0,700000000000001	Berat Badan N
666	57	87	11	2020-10-10...	30	-1,13333333333333	-1,02777777777778	-0,9	Berat Badan N
667	58	87	11,8	2020-10-10...	29	-0,499999999999999	-0,82857142857143	-0,0999999999999996	Berat Badan N
668	59	92	12,2	2020-10-10...	30	-0,733333333333334	-0,0294117647058808	-1,09090909090909	Berat Badan N
669	60	92	13,5	2020-10-10...	30	-0,117647058823529	-0,0294117647058808	-0,0909090909090906	Berat Badan N
670	61	89	13	2020-10-10...	29	-0,0714285714285712	-0,647058823529412	-0,363636363636364	Berat Badan N
671	62	91	13,2	2020-10-10...	28	-0,187499999999999	-0,18181818181818	-0,0909090909090906	Berat Badan N
672	63	84	11,8	2020-10-10...	28	-0,357142857142857	-1,5	-0,636363636363638	Berat Badan N
673	64	88	11,5	2020-10-10...	27	-0,428571428571428	-0,0882352941176464	-0,6	Berat Badan N
674	65	87	12	2020-10-10...	29	-0,357142857142857	-0,82857142857143	-0,0909090909090906	Berat Badan N
675	66	94	13	2020-10-10...	28	-0,411764705882353	-1,44117647058823	-0,545454545454545	Berat Badan N
676	67	88	11,2	2020-10-10...	27	-1,07142857142857	-0,5	-1,33333333333333	Berat Badan N
677	68	86	11,8	2020-10-10...	25	-0,0625000000000008	-0,18181818181818	-0,181818181818183	Berat Badan N
678	69	82	9,7	2020-10-10...	27	-2,14285714285715	-2,37500000000001	-1,44444444444444	Berat Badan K
679	70	79	8,9	2020-10-10...	20	-2	-1,85714285714286	-1,75	Berat Badan N

Bulan November

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_bbu
679	70	79	8,9	2020-10-10...	20	-2	-1,85714285714286	-1,75	Berat Badan N
680	7	116	19	2020-11-10...	58	-0,384615384615384	-1,57777777777778	-1	Berat Badan N
681	8	112	17,8	2020-11-10...	60	-0,217391304347826	-0,434782608695653	-0,875	Berat Badan N
682	9	113	19,5	2020-11-10...	60	-0,444444444444444	-0,652173913043479	-0,0625000000000008	Berat Badan N
683	10	111	18,2	2020-11-10...	60	0	-0,333333333333332	-0,470588235294118	Berat Badan N
684	11	108	17	2020-11-10...	59	-0,521739130434783	-0,304347826086957	-0,571428571428571	Berat Badan N
685	12	108	16,3	2020-11-10...	58	-1,20833333333333	-0,936170212765958	-1	Berat Badan N
686	13	104	15	2020-11-10...	58	-1,20833333333333	-0,936170212765958	-1	Berat Badan N
687	14	112	17,8	2020-11-10...	58	-0,0909090909090906	-0,688888888888888	-0,875	Berat Badan N
688	16	107	18,9	2020-11-10...	57	-0,413793103448275	-0,17391304347826	-0,823529411764705	Berat Badan N
689	17	110	16,5	2020-11-10...	57	-0,5	-0,468085106382979	-1,3125	Berat Badan N
690	18	105	15,9	2020-11-10...	56	-0,818181818181818	-0,622222222222222	-0,692307692307692	Berat Badan N
691	19	106	13,6	2020-11-10...	54	-1,56521739130435	-0,0434782608695658	-2,33333333333333	Berat Badan N
692	20	105	16,8	2020-11-10...	54	-0,238095238095238	-0,386363636363637	0	Berat Badan N
693	21	109	15,6	2020-11-10...	53	-0,636363636363637	-0,755555555555557	-1,625	Berat Badan N
694	22	105	16	2020-11-10...	53	-0,454545454545455	-0,133333333333332	-0,533333333333334	Berat Badan N
695	23	109	19	2020-11-10...	52	-0,846153846153847	-0,888888888888889	-0,444444444444445	Berat Badan N
696	24	107	18	2020-11-10...	52	-0,461538461538462	-0,444444444444444	-0,294117647058824	Berat Badan N
697	25	103	13,6	2020-11-10...	52	-1,45454545454545	-0,454545454545454	-1,78571428571428	Berat Badan N
698	26	107	18,2	2020-11-10...	52	-0,5	-0,325581395348838	-0,437499999999999	Berat Badan N
699	27	103	14,2	2020-11-10...	50	-1,25	-0,333333333333334	-1,53846153846154	Berat Badan N
700	28	98	13,5	2020-11-10...	50	-1,38095238095238	-1,34090909090909	-0,923076923076923	Berat Badan N
701	29	102	16,2	2020-11-10...	49	-0,0476190476190483	-0,302325581395348	-0,249999999999999	Berat Badan N
702	30	102	14,9	2020-11-10...	48	-0,571428571428572	-0,162790697674419	-0,692307692307692	Berat Badan N
703	31	101	14,2	2020-11-10...	49	-1	-0,534883720930232	-1	Berat Badan N
704	32	105	14,9	2020-11-10...	48	-0,571428571428572	-0,534883720930232	-1,26666666666667	Berat Badan N
705	33	101	11,9	2020-11-10...	48	2	0,395348837	-2,769230769	Resiko Berat B
706	34	103	17,3	2020-11-10...	47	-0,583333333333333	-0,209302325581396	-0,750000000000001	Berat Badan N
707	35	103	16,1	2020-11-10...	45	-0,136363636363637	-0,341463414634147	-0,0769230769230753	Berat Badan N
708	36	101	12,7	2020-11-10...	43	-1,31578947368421	-0,317073170731707	-2,15384615384615	Berat Badan N
709	37	103	13,9	2020-11-10...	42	-0,823529411764706	-0,794871794871795	-1,76923076923077	Berat Badan N
710	38	94	13	2020-11-10...	41	-1	-1,1	-0,545454545454545	Berat Badan N
711	39	101	14,5	2020-11-10...	40	-0,0555555555555554	-0,824999999999999	-0,769230769230769	Berat Badan N
712	40	96	12,8	2020-11-10...	40	-1,29411764705882	-0,666666666666667	-1,36363636363636	Berat Badan N
713	41	97	13,7	2020-11-10...	39	-0,647058823529412	-0,263157894736842	-0,750000000000001	Berat Badan N
714	42	97	14,6	2020-11-10...	43	-0,315789473684211	-0,658536585365853	-0,142857142857142	Berat Badan N
715	43	103	14,3	2020-11-10...	39	-0,0588235294117645	-1,51282051282051	-1,28571428571428	Berat Badan N
716	44	98	13,2	2020-11-10...	41	-1,11111111111111	-0,307692307692308	-1,45454545454545	Berat Badan N
717	45	87	13,8	2020-11-10...	37	-0,4375	-2,62162162162162	-1,6	Berat Badan N
718	46	102	17,6	2020-11-10...	37	-1,8	-1,61538461538462	-1,125	Berat Badan N
719	47	90	12,1	2020-11-10...	35	-0,941176470588235	-1,1578947368421	-0,5	Berat Badan N
720	48	87	12	2020-11-10...	34	-1,25	-2,10810810810811	-0,199999999999999	Berat Badan N
721	49	96	11,8	2020-11-10...	36	-1,23529411764706	-0,236842105263159	-1,91666666666667	Berat Badan N
722	50	93	13,7	2020-11-10...	36	-0,375000000000001	-0,837837837837839	-0,0909090909090906	Berat Badan N
723	51	98	14,5	2020-11-10...	34	-0,526315789473684	-1,1578947368421	-0,153846153846153	Berat Badan N
724	52	89	12,3	2020-11-10...	35	-0,823529411764705	-1,42105263157894	-0,0999999999999996	Berat Badan N
725	53	94	14,5	2020-11-10...	34	-0,526315789473684	-0,105263157894738	-0,692307692307692	Berat Badan N
726	54	101	14,3	2020-11-10...	33	-0,555555555555556	-2,18918918918919	-0,923076923076922	Berat Badan N
727	55	97	16,5	2020-11-10...	31	-1,76470588235294	-1,26470588235294	-1,58333333333333	Berat Badan N
728	56	85	12,4	2020-11-10...	31	-0,733333333333333	-2,2	-0,700000000000001	Berat Badan N
729	57	88	11,2	2020-11-10...	31	-1,13333333333333	-0,971428571428573	-0,9	Berat Badan N
730	58	87	11,9	2020-11-10...	30	-0,533333333333333	-1,02777777777778	0	Berat Badan N
731	59	92	12,5	2020-11-10...	31	-0,666666666666667	-0,200000000000001	-0,818181818181819	Berat Badan N
732	60	94	13,5	2020-11-10...	31	0	-0,382352941176471	-0,300000000000001	Berat Badan N
733	61	90	13	2020-11-10...	30	-0,2	-0,558823529411765	-0,0909090909090906	Berat Badan N
734	62	91	13,3	2020-11-10...	29	-0,11764705882353	-0,0588235294117654	-0,181818181818183	Berat Badan N
735	63	84	12	2020-11-10...	29	-0,357142857142857	-1,68571428571429	-0,818181818181819	Berat Badan N
736	64	89	11,6	2020-11-10...	28	-0,500000000000001	-0,0294117647058808	-0,800000000000001	Berat Badan N
737	65	88	12,1	2020-11-10...	30	-0,4	-0,749999999999999	0	Berat Badan N
738	66	94	13,1	2020-11-10...	29	-0,352941176470588	-1,17142857142857	-0,454545454545455	Berat Badan N
739	67	89	11,4	2020-11-10...	28	-1,07142857142857	-0,424242424242425	-1,33333333333333	Berat Badan N
740	68	87	11,8	2020-11-10...	26	-0,0714285714285712	-0,121212121212123	-0,0999999999999996	Berat Badan N
741	69	82	9,7	2020-11-10...	28	-2,28571428571429	-2,54545454545454	-1,44444444444444	Berat Badan K
742	70	82	9,2	2020-11-10...	21	-1,91666666666667	-1,10714285714286	-2	Berat Badan N

Bulan Desember

id	id_balita	tinggi_badan	berat_badan	tgl_imunisasi	usia	bb_u	tb_u	bb_pb	status_b
742	70	82	9,2	2020-11-10 03:46:54	21	-1,91666666666667	-1,10714285714286	-2	Bera
743	13	109	15,5	2020-12-10 01:20:10	59	-1,04166666666667	-0,0212765957446797	-1,6875	Bera
744	14	112	18	2020-12-10 01:22:32	59	-0,0869565217391302	-0,565217391304347	-0,750000000000001	Bera
745	16	104	15,3	2020-12-10 01:24:54	58	-1,08333333333333	-0,936170212765958	-0,785714285714285	Bera
746	17	110	17,1	2020-12-10 01:27:16	58	-0,333333333333332	-0,347826086956521	-0,937499999999999	Bera
747	18	107	16	2020-12-10 01:29:38	57	-0,818181818181818	-0,288888888888888	-1,07142857142857	Bera
748	19	106	13,6	2020-12-10 01:32:00	55	-1,68181818181818	-0,155555555555556	-2,33333333333333	Bera
749	20	107	17,1	2020-12-10 01:34:22	55	-0,19047619047619	-0,045454545454546	-0,285714285714285	Bera
750	21	103	15	2020-12-10 01:36:44	54	-0,956521739130435	-0,695652173913043	-0,785714285714286	Bera
751	22	102	16,7	2020-12-10 01:39:06	54	-0,217391304347826	-0,913043478260868	-0,5625	Bera
752	23	110	17,3	2020-12-10 01:41:28	53	-0,111111111111111	-0,977777777777779	-0,8125	Bera
753	24	108	18,3	2020-12-10 01:43:50	53	-0,481481481481482	-0,533333333333335	-0,277777777777778	Bera
754	25	103	14	2020-12-10 01:46:12	53	-1,36363636363636	-0,577777777777777	-1,5	Bera
755	26	107	18,1	2020-12-10 01:48:34	53	-0,375000000000001	-0,204545454545456	-0,375000000000001	Bera
756	27	104	14,3	2020-12-10 01:50:56	51	-1,25	-0,232558139534884	-1,69230769230769	Bera
757	28	98	13	2020-12-10 01:53:18	51	-1,71428571428571	-1,47727272727273	-1,30769230769231	Bera
758	29	102	16	2020-12-10 01:55:40	50	-0,19047619047619	-0,431818181818183	-0,125	Bera
759	30	102	15	2020-12-10 01:58:02	49	-0,619047619047619	-0,302325581395348	-0,615384615384616	Bera
760	31	101	14,3	2020-12-10 02:00:24	50	-1	-0,65909090909091	-0,923076923076922	Bera
761	32	105	14,5	2020-12-10 02:02:46	49	-0,857142857142857	-0,386363636363637	-1,53333333333333	Bera
762	33	103	12,3	2020-12-10 02:05:08	49	1,904761905	0,069767442	-2,714285714	Resi
763	34	104	17,3	2020-12-10 02:07:30	48	-0,5	-0,302325581395348	-0,529411764705883	Bera
764	35	103	16,1	2020-12-10 02:09:52	46	-0,0454545454545461	-0,195121951219512	-0,0769230769230753	Bera
765	36	105	12,9	2020-12-10 02:12:14	44	-1,26315789473684	-1,11904761904762	-2,6	Bera
766	37	103	13,6	2020-12-10 02:14:36	43	-1,05555555555556	-0,634146341463414	-2	Bera
767	38	95	13,2	2020-12-10 02:16:58	42	-0,947368421052632	-1	-0,583333333333334	Bera
768	39	102	14,3	2020-12-10 02:19:20	41	-0,277777777777778	-0,899999999999999	-1,15384615384615	Bera
769	40	96	12,7	2020-12-10 02:21:42	41	-1,38888888888889	-0,82051282051282	-1,45454545454545	Bera
770	41	97	13,7	2020-12-10 02:24:04	40	-0,764705882352942	-0,41025641025641	-0,750000000000001	Bera
771	42	98	14,9	2020-12-10 02:26:26	44	-0,210526315789474	-0,560975609756098	-0,142857142857143	Bera
772	43	103	14	2020-12-10 02:28:48	40	-0,333333333333333	-1,325	-1,5	Bera
773	44	98	13,5	2020-12-10 02:31:10	42	-1,05882352941176	-0,475000000000001	-1,18181818181818	Bera
774	45	88	13,1	2020-12-10 02:33:32	38	-0,941176470588235	-2,47368421052631	-0,636363636363636	Bera
775	46	102	17,5	2020-12-10 02:35:54	38	-1,57142857142857	-1,43589743589744	-1,0625	Bera
776	47	90	12,1	2020-12-10 02:38:16	36	-1,05882352941176	-1,30769230769231	-0,5	Bera
777	48	87	12,3	2020-12-10 02:40:38	35	-1,1875	-2,33333333333333	-0,100000000000001	Bera
778	49	96	11,8	2020-12-10 02:43:00	37	-1,375	-0,0769230769230764	-1,91666666666667	Bera
779	50	93	13,2	2020-12-10 02:45:22	37	-0,812500000000001	-1	-0,4	Bera
780	51	98	14,5	2020-12-10 02:47:44	35	-0,421052631578948	-0,972972972972974	-0,153846153846153	Bera
781	52	89	12,2	2020-12-10 02:50:06	36	-1	-1,56410256410257	-0,200000000000001	Bera
782	53	94	14,5	2020-12-10 02:52:28	35	-0,421052631578948	-0,105263157894738	-0,692307692307692	Bera
783	54	108	14,3	2020-12-10 02:54:50	34	-0,421052631578948	-3,78947368421052	-2,33333333333333	Bera
784	55	97	16,3	2020-12-10 02:57:12	32	-1,52941176470588	-1,02857142857143	-1,41666666666667	Bera
785	56	86	13	2020-12-10 02:59:34	32	-0,4375	-2,11428571428572	-1,1	Bera
786	57	83	11,7	2020-12-10 03:01:56	32	-0,933333333333334	-2,55555555555555	-0,799999999999999	Bera
787	58	87	11,4	2020-12-10 03:04:18	31	-1	-1,25714285714286	-0,5	Bera
788	59	92	13,1	2020-12-10 03:06:40	32	-0,375	-0,400000000000002	-0,272727272727273	Bera
789	60	94	13,1	2020-12-10 03:09:02	32	-0,375	-0,17142857142857	-0,700000000000001	Bera
790	61	90	13,2	2020-12-10 03:11:24	31	-0,2	-0,771428571428572	-0,272727272727272	Bera
791	62	91	13,5	2020-12-10 03:13:46	30	-0,117647058823529	-0,264705882352942	-0,363636363636364	Bera
792	63	85	12,4	2020-12-10 03:16:08	30	-0,199999999999999	-1,58333333333333	-0,909090909090909	Bera
793	64	100	16,3	2020-12-10 03:18:30	29	-2,23529411764706	-2,88571428571428	-0,733333333333334	Bera
794	65	88	12,4	2020-12-10 03:20:52	31	-0,333333333333333	-0,971428571428573	-0,25	Bera
795	66	94	13,1	2020-12-10 03:23:14	30	-0,235294117647059	-0,942857142857142	-0,454545454545455	Bera
796	67	89	11,5	2020-12-10 03:25:36	29	-1,14285714285714	-0,647058823529412	-1,22222222222222	Bera
797	68	87	11,7	2020-12-10 03:27:58	27	-0,285714285714286	-0,382352941176471	-0,200000000000001	Bera
798	69	83	9,4	2020-12-10 03:30:20	29	-2,64285714285714	-2,41176470588235	-2	Bera
799	70	82	9,5	2020-12-10 03:32:42	22	1,66666666666667	1,379310345	-1,625	Resi
801	91	98	16,3	2021-01-10 00:00:00	39	-0.90476190476191	-0.23076923076923	-1.1428571428571	Bera

Lampiran 6. Daftar Riwayat Hidup Peneliti

DAFTAR RIWAYAT HIDUP

Nama	: Fuadin Latif
Tempat dan Tanggal Lahir	: Cilacap, 6 Oktober 1997
Status	: Belum Menikah
Jenis Kelamin	: Laki-laki
Agama	: Islam
Alamat	: Dusun Buntu, RT 002 RW 011, Desa Bantar, Kecamatan Wanareja Cilacap
No. HP	: 0877-3658-4809
Email	: fuadinlatiepzz@gmail.com

RIWAYAT PENDIDIKAN

1.	MI	: MI Maarif NU 05 Bantar	(2007 - 2013)
2.	SMP	: SMP Negeri 01 Wanareja	(2013 - 2016)
3.	SMK	: SMK Komputama Majenang	(2016 - 2019)
4.	S1	: Teknik Informatika, UPB	(2018 - 2019)
5.	S1	: Teknik Informatika, UNUGHA	(2019 - Sekarang)