

2. Coding Program Arduino

```
#include <Wire.h>
#include <SoftwareSerial.h>
#include <LiquidCrystal.h>

SoftwareSerial mySerial(10, 11);
LiquidCrystal lcd(9, 8, 7, 6, 5, 4);

unsigned long startTime1,startTime2,startTime3;
boolean s1,s2,s3;
int a=0,b=0,c=0;

//long period = 3.6e+6;
long period = 1000;
unsigned long time_now = 0;

#include <EEPROM.h>

// the current address in the EEPROM (i.e. which byte
// we're going to write to next

int addr = 0;

void setup(){
mySerial.begin(9600);
Serial.begin(9600);
lcd.begin(16, 2);
lcd.setCursor(4,0);
lcd.print("Hour Meter");
lcd.clear();

}
void loop(){
  startTime1 = EEPROMReadInt(addr);
  startTime2 = EEPROMReadInt(2);
  startTime3 = EEPROMReadInt(4);
```

```

if(analogRead(0)>100)    s1=true;
else                    s1=false;
if(analogRead(1)>100)    s2=true;
else                    s2=false;
if(analogRead(2)>100)    s3=true;
else                    s3=false;
Serial.println("ADC 1 =" + String(analogRead(0)) + " ADC 2 =" +
String(analogRead(1)) + " ADC 3 =" + String(analogRead(2)));

if(millis() > time_now + period){
if(s1==true)  startTime1++;
if(s2==true)  startTime2++;
if(s3==true)  startTime3++;

EEPROMWriteInt(addr,startTime1);
EEPROMWriteInt(2,startTime2);
EEPROMWriteInt(4,startTime3);

    String data =
"A"+String(startTime1)+"B"+String(startTime2)+"C"+String(startTime3)+"D";

mySerial.println(data);
Serial.println(data);
    time_now = millis();

}

    String lcds = "S1=" + String(startTime1) + " S2=" + String(startTime2) + " S3=" +
String(startTime3) + " ";
lcd.setCursor(0,0);
lcd.print(lcds);
lcd.setCursor(0,1);

}

void EEPROMWriteInt(int address, int value)
{

```

```

byte two = (value & 0xFF);
byte one = ((value >> 8) & 0xFF);

EEPROM.update(address, two);
EEPROM.update(address + 1, one);
}

int EEPROMReadInt(int address)
{
long two = EEPROM.read(address);
long one = EEPROM.read(address + 1);

return ((two << 0) & 0xFFFFF) + ((one << 8) & 0xFFFFFFFF);
}

```

3. Coding Program Wemos

```

#include <ESP8266WiFi.h>
#include <ESP8266WiFiMulti.h>
#include <ESP8266HTTPClient.h>

ESP8266WiFiMulti WiFiMulti;
void setup() {
Serial.begin(9600);
Serial.println("Connecting.....");
WiFiMulti.addAP("HOURMETER", "hourmeter");
}

void loop() {
if((WiFiMulti.run() == WL_CONNECTED)) {
  HTTPClient http;
  if(Serial.available()){
    String x = Serial.readStringUntil('\n');
    int na = x.indexOf("A");
    int nb = x.indexOf("B");
    int nc = x.indexOf("C");
    int nd = x.indexOf("D");

```

```

Serial.println(x);
String S1 = x.substring(na+1,nb);
String S2 = x.substring(nb+1,nc);
String S3 = x.substring(nc+1,nd);

String urls ="http://halocode.net/hourmeter/insert.php?
s1="+S1+"&s2="+S2+"&s3="+S3;

http.begin(urls);
int httpCode = http.GET();
if (httpCode>0){
if(httpCode == HTTP_CODE_OK) {
String json = http.getString();
Serial.println(json);
}
}else{
Serial.println("Transfer Failed");
}
http.end();
}
}
}

```

4. Coding Program Website

1. Buka visual studio code untuk membuat koding website
Berikan nama file dengan hourmeter.php
2. Masukkan kode html dan php untuk membuat tampilan

```

<!DOCTYPE html>
<html>
<head>
<?php

```

```

    date_default_timezone_set("Asia/Jakarta");
    ?>su
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<title>Home</title>
<!-- Tell the browser to be responsive to screen width -->
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- Font Awesome -->
<link rel="stylesheet" href="plugins/font-awesome/css/font-awesome.min.css">
<!-- Theme style -->
<link rel="stylesheet" href="dist/css/adminlte.min.css">
<!-- bootstrap wysihtml5 - text editor -->
<link rel="stylesheet" href="plugins/bootstrap-wysihtml5/bootstrap3-wysihtml5.min.css">
<!-- Google Font: Source Sans Pro -->
<link href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,400i,700" rel="stylesheet">
</head>
<body class="hold-transition sidebar-mini">

<div class="wrapper">

<!-- Navbar -->
<nav class="main-header navbar navbar-expand bg-white navbar-light border-bottom">
<!-- Left navbar links -->
<ul class="navbar-nav">
<li class="nav-item">
<a class="nav-link" data-widget="pushmenu" href="index.html"><i class="fa fa-bars"></i></a>
</li>
<li class="nav-item d-none d-sm-inline-block">
<a href="home.php" class="nav-link">Home</a>
</li>
</ul>

<!-- SEARCH FORM -->
<form class="form-inline ml-3">
<div class="input-group input-group-sm">

```

```

<input class="form-control form-control-navbar" type="search"
placeholder="Search" aria-label="Search">
<div class="input-group-append">
<button class="btn btn-navbar" type="submit">
<i class="fa fa-search"></i>
</button>
</div>
</div>
</form>
</nav>
<!-- /.navbar -->

<!-- Main Sidebar Container -->
<aside class="main-sidebar sidebar-dark-primary elevation-4">
<!-- Brand Logo -->
<a href="" class="brand-link">

<span class="brand-text font-weight-light">Monitoring Sensor</span>
</a>

<div class="sidebar">
<nav class="mt-2">
<ul class="nav nav-pills nav-sidebar flex-column" data-widget="treeview"
role="menu" data-accordion="false">

<li class="nav-item has-treeview menu-open">
<a href="" class="nav-link active">
<i class="nav-icon fa fa-dashboard"></i>
<p>
Home
</p>
</a>
</li>
<li class="nav-item">
<a href="logout.php" class="nav-link">
<i class="nav-icon fa fa-sign-out"></i>
Exit

```

```

</p>
</a>
</li>
</div>
<!-- /.sidebar -->
</aside>

<!-- Content Wrapper. Contains page content -->
<div class="content-wrapper">
<!-- Content Header (Page header) -->
<div class="container-fluid">
<div class="row mb-2">
<div class="col-sm-6">
<h2>MONITORING SENSOR</h2>
</div>
</div>
<div class="card">
<div class="card-header d-flex p-0">
<h3 class="card-title p-3">
<i class="fa fa-pie-chart mr-1"></i>
    Dashboard
</h3>

<?php
    require_once("koneksi.php");

    $sql="SELECT * FROM sp";
    $result=mysqli_query($conn,$sql);

    if(mysqli_num_rows($result)>0){
    while($row=mysqli_fetch_assoc($result)){
        $setpoint=$row['sp'];
        $setpoint2=$row['sp2'];
        $setpoint3=$row['sp3'];

        }
    }
?>

```



```

<form method='post'>

<title>Set Point</title>
<input type="number" name="sp" <?php echo "value=" . $setpoint . """; ?>
placeholder="Set Point">
<button type="submit" name="submit2">Submit</button>

<title>Set Point</title>
<input type="number" name="sp2" <?php echo "value=" . $setpoint2 . """; ?>
placeholder="Set Point">
<button type="submit" name="submit3">Submit</button>

<title>Set Point</title>
<input type="number" name="sp3" <?php echo "value=" . $setpoint3 . """; ?>
placeholder="Set Point">
<button type="submit" name="submit4">Submit</button>

</form>

```

```

<?php
    require_once("koneksi.php");

if(isset($_POST['submit2'])) {
    $sp=$_POST['sp'];
    $sql="UPDATE `sp` SET `sp`='$sp' WHERE 1";
    $result=mysqli_query($conn,$sql);
echo "<script>location.href='home.php';</script>";
}
if(isset($_POST['submit3'])) {
    $sp=$_POST['sp2'];
    $sql="UPDATE `sp` SET `sp2`='$sp' WHERE 1";
    $result=mysqli_query($conn,$sql);
echo "<script>location.href='home.php';</script>";
}
if(isset($_POST['submit4'])) {
    $sp=$_POST['sp3'];

```

```

        $sql="UPDATE `sp` SET `sp3`='$sp' WHERE 1";
        $result=mysqli_query($conn,$sql);
echo "<script>location.href='home.php';</script>";
    }

```

```

?>

```

```

<form method='post'>
<button type='submit' name="submit">Clear Data</button

```

```

<input type="text" placeholder="hello"></input>
</form>

```

```

<div id="notiv"></div>

```

```

<?php
    require_once("koneksi.php");
if(isset($_POST['submit'])){
    $sql = "TRUNCATE TABLE `hoursensor` ";
    $result = mysqli_query($conn, $sql);
    }
?>
</div>

```

```

<div id="notif">
</div>

```

```

<div class="card-body">
<div class="tab-content p-0">
<!-- Morris chart - Sales -->
<div class="chart tab-pane active" id="revenue-chart"
style="position: relative; height: 300px;"></div>
<div class="chart tab-pane" id="sales-chart" style="position: relative; height:
300px;"></div>
</div>
</div><!-- /.card-body -->
</div>

```

```

    </div>
</div>
</div>
<!-- /.content-wrapper -->

<!-- Control Sidebar -->
<aside class="control-sidebar control-sidebar-dark">
<!-- Control sidebar content goes here -->
</aside>
<!-- /.control-sidebar -->
</div>
<!-- ./wrapper -->

<!-- jQuery -->
<script src="plugins/jquery/jquery.min.js"></script>
<!-- jQuery UI 1.11.4 -->
<script src="https://code.jquery.com/ui/1.12.1/jquery-ui.min.js"></script>
<!-- Resolve conflict in jQuery UI tooltip with Bootstrap tooltip -->
<script>
$.widget.bridge('uibutton', $.ui.button)
</script>
<!-- Bootstrap 4 -->
<script src="plugins/bootstrap/js/bootstrap.bundle.min.js"></script>
<!-- Sparkline -->
<script src="plugins/sparkline/jquery.sparkline.min.js"></script>
<!-- jvectormap -->
<script src="plugins/jvectormap/jquery-jvectormap-1.2.2.min.js"></script>
<script src="plugins/jvectormap/jquery-jvectormap-world-mill-en.js"></script>
<!-- jQuery Knob Chart -->
<script src="plugins/knob/jquery.knob.js"></script>
<script src="plugins/datepicker/bootstrap-datepicker.js"></script>
<!-- Bootstrap WYSIHTML5 -->
<script src="plugins/bootstrap-wysihtml5/bootstrap3-wysihtml5.all.min.js"></
script>
<!-- Slimscroll -->
<script src="plugins/slimScroll/jquery.slimscroll.min.js"></script>
<!-- AdminLTE App -->
<script src="dist/js/adminlte.js"></script>

```

```

<!-- AdminLTE for demo purposes -->
<script src="dist/js/demo.js"></script>

<script>
var refreshId=setInterval(function()
{
    $('#notif').load('notif_home.php');
},1000);

var refreshId=setInterval(function()
{
    $('#notif').load('notiv.php');
},1000);

</script>

</body>
</html>

```

3. Buat file bernama koneksi.php untuk koneksi dengan database

```

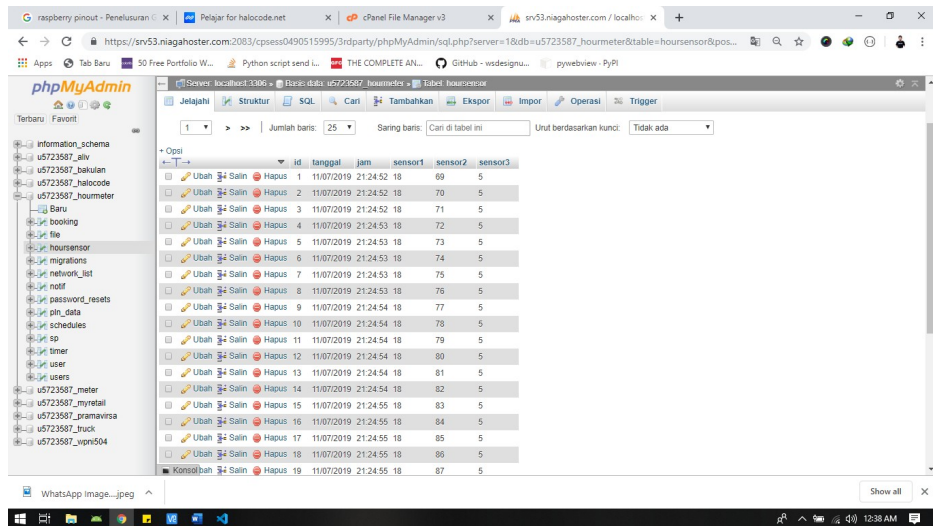
<?php
$servername = "localhost";
$username = "u5723587_hourmeter";
$password = "hourmeter2019";
$dbname = "u5723587_hourmeter";
// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

?>

```

4. Buat database dengan nama hourmeter menggunakan phpMyAdmin

5. Buat table dengan nama hoursensor untuk menampung data sensor



6. Buat file dengan nama index.php untuk membuat tampilan login dengan kode dibawah

```
<?php
session_start();
$form_error = "";

if(isset($_POST['submit'])) {
    // menyimpan data yang dikirim dari metode POST ke masing-masing variabel
    $username = $_POST['username'];
    $password = $_POST['password'];

    // validasi login benar atau salah
    if($username == 'admin' AND $password == 'admin'){
        // jika login benar maka email akan disimpan ke session kemudian akan di
        redirect ke halaman profil
        $_SESSION['username'] = $username;
        header('Location: home.php');
    }else{
```

```

    // jika login salah maka variabel form_error diisi value seperti dibawah
    // nilai variabel ini akan ditampilkan di halaman login jika salah
    $form_error = '<p>Password atau email yang kamu masukkan salah</p>';
  }
}

?>
<!DOCTYPE html>
<html>
<head>
<title>HourMeter</title>

<meta charset="utf-8">

<script>
  addEventListener("load", function () {
    setTimeout(hideURLbar, 0);
  }, false);

  function hideURLbar() {
    window.scrollTo(0, 1);
  }
</script>

<!-- Custom Theme files -->
<link href="dist/style.css" rel="stylesheet" type="text/css" media="all" />
<link href="dist/font-awesome.min.css" rel="stylesheet" type="text/css"
media="all" />
<!-- //Custom Theme files -->
<!-- web font -->
<link href="//fonts.googleapis.com/css?family=Hind:300,400,500,600,700"
rel="stylesheet">
<!-- //web font -->

</head>
<body>

<!-- main -->

```

```

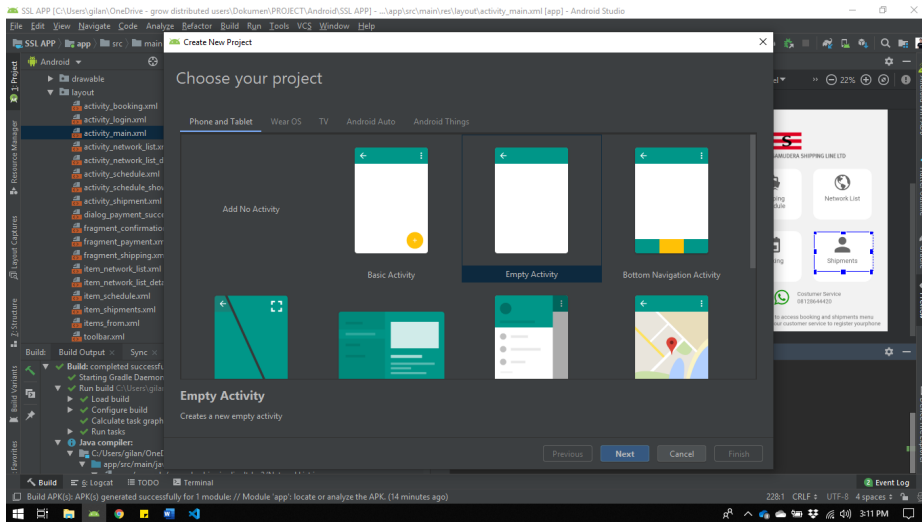
<div class="w3layouts-main">
  <div class="bg-layer">
    <div class="header-main">
      <div class="main-icon">
        <span class="fa fa-eercast"></span>
      </div>
      <div class="header-left-bottom">
        <form action="index.php" method="post">
          <div class="icon1">
            <span class="fa fa-user"></span><input type="username"
name="username" placeholder="Username" required=""/>
          </div>
          <div class="icon1">
            <span class="fa fa-lock"></span><input type="password"
name="password" placeholder="Password" required=""/>
          </div>
          <div class="login-check">
            <label class="checkbox"><input type="checkbox"
name="checkbox" checked=""><i></i> Keep me logged in</label>
          </div>
          <div class="bottom">
            <button class="btn" type="submit" name="submit">Log In</button>
          </div>
          <div class="links">
            <p><a href="#">Forgot Password?</a></p>
            <p class="right"><a href="#">New User? Register</a></p>
            <div class="clear"></div>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
<!-- //main -->

</body>
</html>

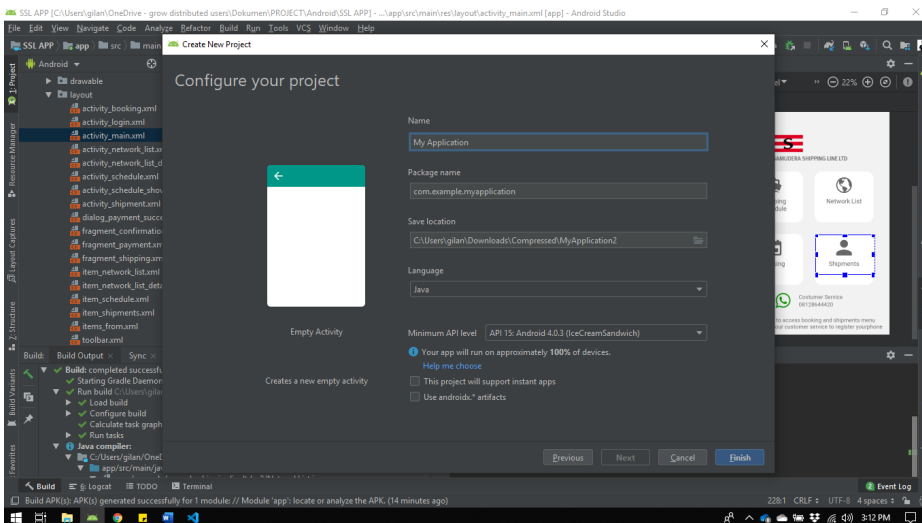
```

5. Coding Program Android

1. Buka Android Studio
2. Pilih new project



3. Beri nama aplikasi dan file untuk menyimpan



4. Masukkan kode berikut di MainActivity.java

```
package com.material.components.activity.dashboard;

import android.content.Intent;
import android.graphics.Color;
import android.graphics.PorterDuff;
import android.os.AsyncTask;
import android.os.Bundle;
import android.os.Handler;
import android.support.design.widget.TabLayout;
import android.support.v4.widget.NestedScrollView;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.CardView;
import android.support.v7.widget.Toolbar;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.ListAdapter;
import android.widget.ListView;
import android.widget.SimpleAdapter;
import android.widget.TextView;
import android.widget.Toast;

import com.material.components.R;
import com.material.components.utils.Tools;

import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import java.util.ArrayList;
import java.util.HashMap;

public class DashboardWallet extends AppCompatActivity {
    private String JSON_STRING;

    private TabLayout tab_layout;
    private NestedScrollView nested_scroll_view;
    Handler handler = new Handler();
    TextView engine,idling,driving,wh;
```

```

ListView card;
CardView cv1,cv2,cv3;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_dashboard_wallet);
    initToolbar();
    //initComponent();
    cv1 = (CardView) findViewById(R.id.cv1);
    cv2 = (CardView) findViewById(R.id.cv2);
    cv3 = (CardView) findViewById(R.id.cv3);

    card = (ListView) findViewById(R.id.lv);
    engine = (TextView) findViewById(R.id.engine);
    idling = (TextView) findViewById(R.id.idling);
    driving = (TextView) findViewById(R.id.driving);
    wh = (TextView) findViewById(R.id.wh);

    handler.postDelayed(runnable, 1000);
}
private Runnable runnable = new Runnable() {
    @Override
    public void run() {

        getJSON2();
        handler.postDelayed(this, 1000);
    }
};

private void getJSON2(){
    class GetJSON2 extends AsyncTask<Void,Void,String> {

        @Override
        protected void onPostExecute(String s) {
            super.onPostExecute(s);
            JSON_STRING = s;

            showEmployee2();
        }

        @Override
        protected String doInBackground(Void... params) {

```

```

        RequestHandler rh = new RequestHandler();
        String s = rh.sendGetRequest(config.URL_GET_ALL2);
        return s;
    }
}
GetJSON2 gj = new GetJSON2();
gj.execute();
}

```

```

private void getJSON(){
    class GetJSON extends AsyncTask<Void,Void,String> {

```

```

        @Override
        protected void onPostExecute(String s) {
            super.onPostExecute(s);
            JSON_STRING = s;
            showEmployee();
        }

```

```

        @Override
        protected String doInBackground(Void... params) {
            RequestHandler rh = new RequestHandler();
            String s = rh.sendGetRequest(config.URL_GET_ALL);
            return s;
        }

```

```

    }
    GetJSON gj = new GetJSON();
    gj.execute();
}

```

```

private void showEmployee(){
    JSONObject jsonObject = null;
    ArrayList<HashMap<String,String>> list = new
ArrayList<HashMap<String, String>>();
    try {
        jsonObject = new JSONObject(JSON_STRING);
        JSONArray result =
jsonObject.getJSONArray(config.TAG_JSON_ARRAY);

```

```

        for(int i = 0; i<result.length(); i++){
            JSONObject jo = result.getJSONObject(i);

```

```

String engines = jo.getString(config.engine);
String idlings = jo.getString(config.idling);
String drivings = jo.getString(config.driving);
String jams = jo.getString(config.jam);
String tanggals = jo.getString(config.tanggal);

HashMap<String,String> employees = new HashMap<>();
employees.put(config.engine,engines);
employees.put(config.idling,idlings);
employees.put(config.driving,drivings);
employees.put(config.tanggal,tanggals);
employees.put(config.jam,jams);
list.add(employees);

engine.setText(engines);
idling.setText(idlings);
driving.setText(drivings);
}

} catch (JSONException e) {
    e.printStackTrace();
}

ListAdapter adapter = new SimpleAdapter(
    DashboardWallet.this, list, R.layout.list_view,
    new String[]{config.engine, config.idling, config.driving,
config.tanggal, config.jam},
    new int[]{R.id.engine2, R.id.idling2, R.id.driving2, R.id.tanggal,
R.id.jam});

card.setAdapter(adapter);

}

private void showEmployee2(){
    JSONObject jsonObject = null;
    ArrayList<HashMap<String,String>> list = new
ArrayList<HashMap<String, String>>();
    try {
        jsonObject = new JSONObject(JSON_STRING);

```

```

JSONArray result =
jsonObject.getJSONArray(config.TAG_JSON_ARRAY);

for(int i = 0; i<result.length(); i++){
    JSONObject jo = result.getJSONObject(i);
    String sp1 = jo.getString(config.sp1);
    String sp2 = jo.getString(config.sp2);
    String sp3 = jo.getString(config.sp3);

    try {
        if(Integer.parseInt(sp1) <
Integer.parseInt(engine.getText().toString())) {
            cv1.setBackgroundColor(Color.RED);
        }else{
            cv1.setBackgroundColor(Color.WHITE);
        }

        if(Integer.parseInt(sp2) <
Integer.parseInt(idling.getText().toString())) {
            cv2.setBackgroundColor(Color.RED);
        }else{
            cv2.setBackgroundColor(Color.WHITE);
        }

        if(Integer.parseInt(sp3) <
Integer.parseInt(driving.getText().toString())) {
            cv3.setBackgroundColor(Color.RED);
        }else{
            cv3.setBackgroundColor(Color.WHITE);
        }

    }
    catch (Exception e){
        e.printStackTrace();
//        System.out.println("error karena pembagian nol");
    }

}

```

```

        } catch (JSONException e) {
            e.printStackTrace();
        }

    }

    private void initToolBar() {
        Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
        toolbar.setNavigationIcon(R.drawable.ic_menu);

        toolbar.getNavigationIcon().setColorFilter(getResources().getColor(R.color.
        light_blue_500), PorterDuff.Mode.SRC_ATOP);
        setSupportActionBar(toolbar);
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setTitle(null);
        Tools.setSystemBarColor(this, R.color.grey_5);
        Tools.setSystemBarLight(this);
    }

    private void initComponents() {
        nested_scroll_view = (NestedScrollView)
        findViewById(R.id.nested_scroll_view);
        tab_layout = (TabLayout) findViewById(R.id.tab_layout);

        tab_layout.addTab(tab_layout.newTab().setIcon(R.drawable.ic_equalizer),
        0);

        tab_layout.addTab(tab_layout.newTab().setIcon(R.drawable.ic_credit_card)
        , 1);

        tab_layout.addTab(tab_layout.newTab().setIcon(R.drawable.ic_pie_chart_o
        utline), 2);

        tab_layout.addTab(tab_layout.newTab().setIcon(R.drawable.ic_person), 3);

        // set icon color pre-selected

        tab_layout.getTabAt(0).getIcon().setColorFilter(getResources().getColor(R.

```

```

color.light_blue_100), PorterDuff.Mode.SRC_IN);

tab_layout.getTabAt(1).getIcon().setColorFilter(getResources().getColor(R.
color.light_blue_700), PorterDuff.Mode.SRC_IN);

tab_layout.getTabAt(2).getIcon().setColorFilter(getResources().getColor(R.
color.light_blue_700), PorterDuff.Mode.SRC_IN);

tab_layout.getTabAt(3).getIcon().setColorFilter(getResources().getColor(R.
color.light_blue_700), PorterDuff.Mode.SRC_IN);

    tab_layout.addTabSelectedListener(new
    TabLayout.OnTabSelectedListener() {
        @Override
        public void onTabSelected(TabLayout.Tab tab) {

            tab.getIcon().setColorFilter(getResources().getColor(R.color.light_blue_100
            ), PorterDuff.Mode.SRC_IN);
        }

        @Override
        public void onTabUnselected(TabLayout.Tab tab) {

            tab.getIcon().setColorFilter(getResources().getColor(R.color.light_blue_700
            ), PorterDuff.Mode.SRC_IN);
        }

        @Override
        public void onTabReselected(TabLayout.Tab tab) {
        }
    });
}

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.menu_refresh, menu);
        Tools.changeMenuIconColor(menu,
        getResources().getColor(R.color.light_blue_500));
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {

```

```

        if (item.getItemId() == android.R.id.home) {
            finish();
        } else {
            Toast.makeText(getApplicationContext(), item.getTitle(),
Toast.LENGTH_SHORT).show();
            getJSON();
        }
        return super.onOptionsItemSelected(item);
    }
}
}

```

5. Buat desain tampilan di `res/layout/activity_main.xml` dengan memasukkan source code xml dibawah ini

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:background="@color/grey_5"
android:fitsSystemWindows="true"
android:orientation="vertical">

<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">

<android.support.design.widget.AppBarLayout
    android:layout_width="match_parent"

```



```

        android:layout_height="wrap_content"
        android:background="@color/grey_5"
        app:elevation="0dp">

```

```

<android.support.v7.widget.Toolbar
    android:id="@+id/toolbar"
    android:layout_width="match_parent"
    android:layout_height="?attr/actionBarSize"

```

```

    android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar"
    app:contentInsetStartWithNavigation="0dp"

```

```

    app:popupTheme="@style/ThemeOverlay.AppCompat.Light"
    app:theme="@style/Toolbar.Light" />

```

```

</android.support.design.widget.AppBarLayout>

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="665dp"
    android:orientation="vertical"
    android:paddingLeft="@dimen/spacing_large"
    android:paddingRight="@dimen/spacing_large">

```

```

<android.support.v7.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    app:cardBackgroundColor="@color/light_blue_500"
    app:cardCornerRadius="6dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:orientation="vertical">

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="@dimen/spacing_xlarge"
    android:gravity="center_vertical"
    android:orientation="horizontal">

```

```

<View
    android:layout_width="@dimen/spacing_large"
    android:layout_height="0dp" />

<ImageButton
    android:layout_width="@dimen/spacing_xlarge"
    android:layout_height="@dimen/spacing_xlarge"
    android:background="?attr/selectableItemBackgroundBorderless"
    android:tint="@color/light_blue_100"
    app:srcCompat="@drawable/ic_add" />

</LinearLayout>

<View
    android:layout_width="0dp"
    android:layout_height="@dimen/spacing_middle" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="HM"
    android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"
    android:textColor="@color/light_blue_50" />

<TextView
    android:id="@+id/wh"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hourmeter"
    android:textAppearance="@style/Base.TextAppearance.AppCompat.Display1"
    android:textColor="@android:color/white"
    app:fontFamily="sans-serif-medium" />

<View
    android:layout_width="0dp"
    android:layout_height="@dimen/spacing_mxlarge" />

</LinearLayout>
</android.support.v7.widget.CardView>

```

```

<View
    android:layout_width="match_parent"
    android:layout_height="@dimen/spacing_small" />

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">

<android.support.v7.widget.CardView
    android:id="@+id/cv1"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    app:cardCornerRadius="6dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center">

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Engine"

    android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"

    android:textColor="@color/indigo_900"
    android:textSize="11sp"
    app:fontFamily="sans-serif-medium" />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

```

```

android:gravity="center_vertical"
android:orientation="horizontal"
android:padding="@dimen/spacing_large">

```

```
<RelativeLayout
```

```

    android:layout_width="25dp"
    android:layout_height="25dp">

```

```
<ImageView
```

```

    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_centerInParent="true"
    android:tint="@color/grey_10"
    app:srcCompat="@drawable/shape_circle" />

```

```
<ImageView
```

```

    android:layout_width="15dp"
    android:layout_height="15dp"
    android:layout_centerInParent="true"
    android:rotation="180"
    android:tint="@color/grey_40"
    app:srcCompat="@drawable/engine" />

```

```
</RelativeLayout>
```

```
<View
```

```

    android:layout_width="@dimen/spacing_mlarge"
    android:layout_height="0dp" />

```

```
<LinearLayout
```

```

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical">

```

```
<TextView
```

```

    android:id="@+id/engine"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Send"

```

```

    android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"

```

```

        android:textColor="@color/indigo_900"
        android:textSize="13sp"
        app:fontFamily="sans-serif-medium" />

```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
</android.support.v7.widget.CardView>
```

```

<android.support.v7.widget.CardView
    android:id="@+id/cv2"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    app:cardCornerRadius="6dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">

```

```
<LinearLayout
```

```

    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

```

```
<LinearLayout
```

```

    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center">

```

```
<TextView
```

```

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Idling"

```

```

android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"

```

```

        android:textColor="@color/indigo_900"
        android:textSize="11sp"
        app:fontFamily="sans-serif-medium" />

```

```
</LinearLayout>
```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center_vertical"
    android:orientation="horizontal"
    android:padding="@dimen/spacing_large">

<RelativeLayout
    android:layout_width="25dp"
    android:layout_height="25dp">

<ImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_centerInParent="true"
    android:tint="@color/grey_10"
    app:srcCompat="@drawable/shape_circle" />

<ImageView
    android:layout_width="15dp"
    android:layout_height="15dp"
    android:layout_centerInParent="true"
    android:rotation="180"
    android:tint="@color/grey_40"
    app:srcCompat="@drawable/idling" />

</RelativeLayout>

<View
    android:layout_width="@dimen/spacing_mlarge"
    android:layout_height="0dp" />

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical">

<TextView
    android:id="@+id/idling"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Send"

```

```
android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"
ad"
```

```
    android:textColor="@color/indigo_900"
    android:textSize="13sp"
    app:fontFamily="sans-serif-medium" />
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
</android.support.v7.widget.CardView>
```

```
<View
```

```
    android:layout_width="@dimen/spacing_small"
    android:layout_height="0dp" />
```

```
<android.support.v7.widget.CardView
```

```
    android:id="@+id/cv3"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    app:cardCornerRadius="6dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center">
```

```
<TextView
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Driving"
```

```
android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"
ad"
```

```
    android:textColor="@color/indigo_900"
    android:textSize="11sp"
    app:fontFamily="sans-serif-medium" />
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center_vertical"
    android:orientation="horizontal"
    android:padding="@dimen/spacing_large">
```

```
<RelativeLayout
```

```
    android:layout_width="25dp"
    android:layout_height="25dp">
```

```
<ImageView
```

```
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_centerInParent="true"
    android:tint="@color/grey_10"
    app:srcCompat="@drawable/shape_circle" />
```

```
<ImageView
```

```
    android:layout_width="15dp"
    android:layout_height="15dp"
    android:layout_centerInParent="true"
    android:rotation="180"
    android:tint="@color/grey_40"
    app:srcCompat="@drawable/driving" />
```

```
</RelativeLayout>
```

```
<View
```

```
    android:layout_width="@dimen/spacing_mlarge"
    android:layout_height="0dp" />
```

```
<LinearLayout
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical">
```



```

<TextView
    android:id="@+id/driving"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Send"

    android:textAppearance="@style/Base.TextAppearance.AppCompat.Subhead"

    android:textColor="@color/indigo_900"
    android:textSize="13sp"
    app:fontFamily="sans-serif-medium" />

</LinearLayout>

</LinearLayout>

</LinearLayout>

</android.support.v7.widget.CardView>

</LinearLayout>

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="@dimen/spacing_middle"
    android:layout_marginBottom="@dimen/spacing_medium"
    android:gravity="center"
    android:text="Today"

    android:textAppearance="@style/Base.TextAppearance.AppCompat.Body2"

    android:textColor="@color/grey_40"
    app:fontFamily="sans-serif-medium" />

<ListView
    android:id="@+id/lv"
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:cacheColorHint="#00000000" />

```

<View

```
android:layout_width="match_parent"
android:layout_height="@dimen/spacing_large" />
```

</LinearLayout>

</LinearLayout>

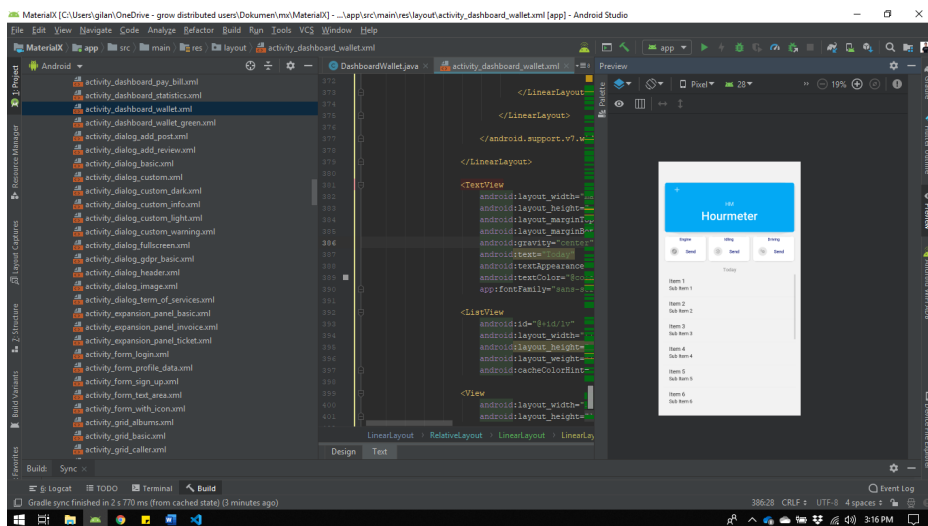
<View

```
android:layout_width="match_parent"
android:layout_height="4dp"
android:layout_alignParentBottom="true"
android:background="@drawable/bg_gradient_very_soft" />
```

</RelativeLayout>

</LinearLayout>

6. Tampilan akan menjadi seperti dibawah ini



7. Tambahkan akses ke internet pada AndroidManifest.xml

```
<uses-permission
android:name="android.permission.ACCESS_NETWORK_STATE" />
<uses-permission android:name="android.permission.INTERNET" />
```

8. Tambahkan library gradle untuk mengambil library desain dari internet

```
// third party dependencies -----  
implementation 'com.balysv:material-ripple:1.0.2' // ripple effect  
implementation 'com.github.bumptech.glide:glide:3.7.0' // image loader  
implementation 'com.wdullaer:materialdatetimepicker:3.2.0' // date & time  
picker  
implementation 'com.mikhaellopez:circularimageview:3.2.0' // circle image  
view  
implementation 'com.github.pchmn:MaterialChipsInput:1.0.5' // material chip  
implementation 'com.hootsuite.android:nachos:1.1.1' // material chips  
implementation 'com.google.android:flexbox:0.3.2' // google flexible box  
implementation 'com.crystal:crystalrangeseekbar:1.1.3' // range seek bar
```

(Halaman ini sengaja dikosongkan)