Jurnal MODUL 7
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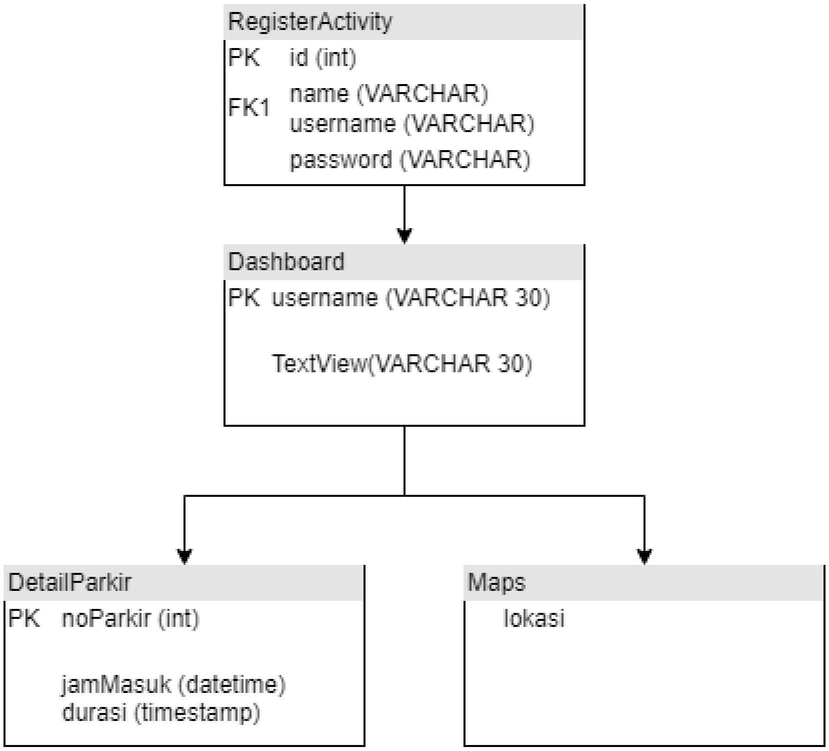
Class Diagram



1.
a. Pillih bahasa pemrograman OO untuk implementasi program TUBES. Jelaskan alasan pemilihan Anda.

Bahasa yang digunakan adalah Java pada Android Studio, karena Java bersifat object oriented.

b. Download compiler bahasa pemrograman tsb, dan install.

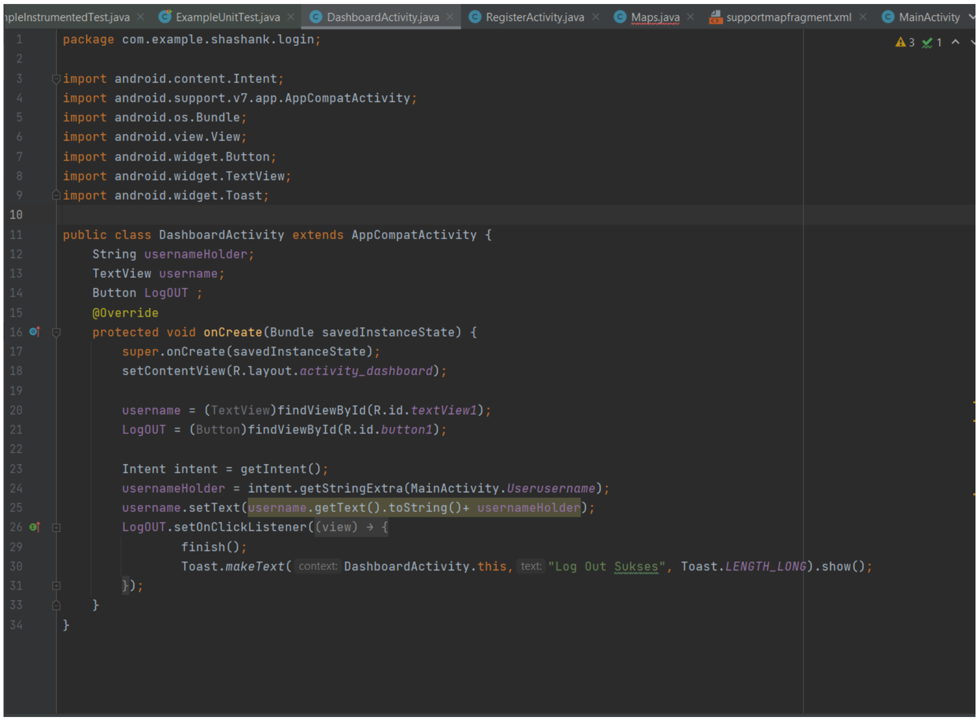
Compiler bahasa pemrograman menggunakan Android Studio

2. Implementasikan setidaknya tiga class dari Class Diagram yang ada di DPPL Anda dengan bahasa

pemrograman yang telah Anda install :

a. Class paling sederhana (paling sedikit atribut & methodnya)

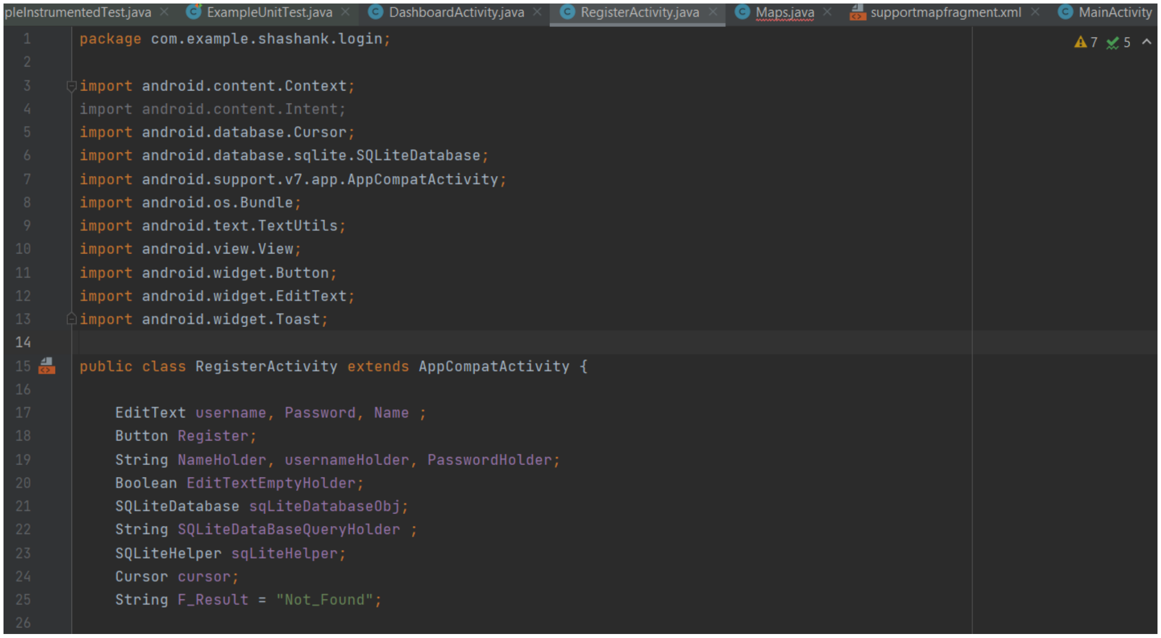
Class Dashboard



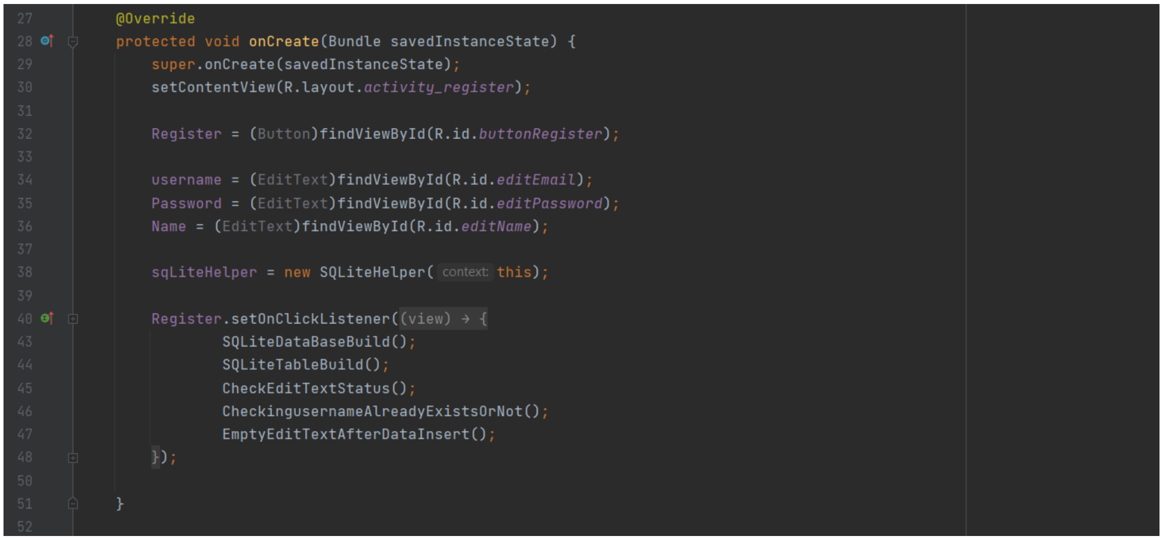
```
package com.example.shashank.login;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

public class DashboardActivity extends AppCompatActivity {
    String usernameHolder;
    TextView username;
    Button LogOUT ;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_dashboard);

        username = (TextView)findViewById(R.id.textView1);
        LogOUT = (Button)findViewById(R.id.button1);

        Intent intent = getIntent();
        usernameHolder = intent.getStringExtra(MainActivity.Userusername);
        username.setText(username.getText().toString()+ usernameHolder);
        LogOUT.setOnClickListener((view) → {
                finish();
                Toast.makeText( context: DashboardActivity.this, text: "Log Out Sukses", Toast.LENGTH_LONG).show();
        });
    }
}
```

b. Class yang sedang (jumlah atribut & methodnya "rata-rata")

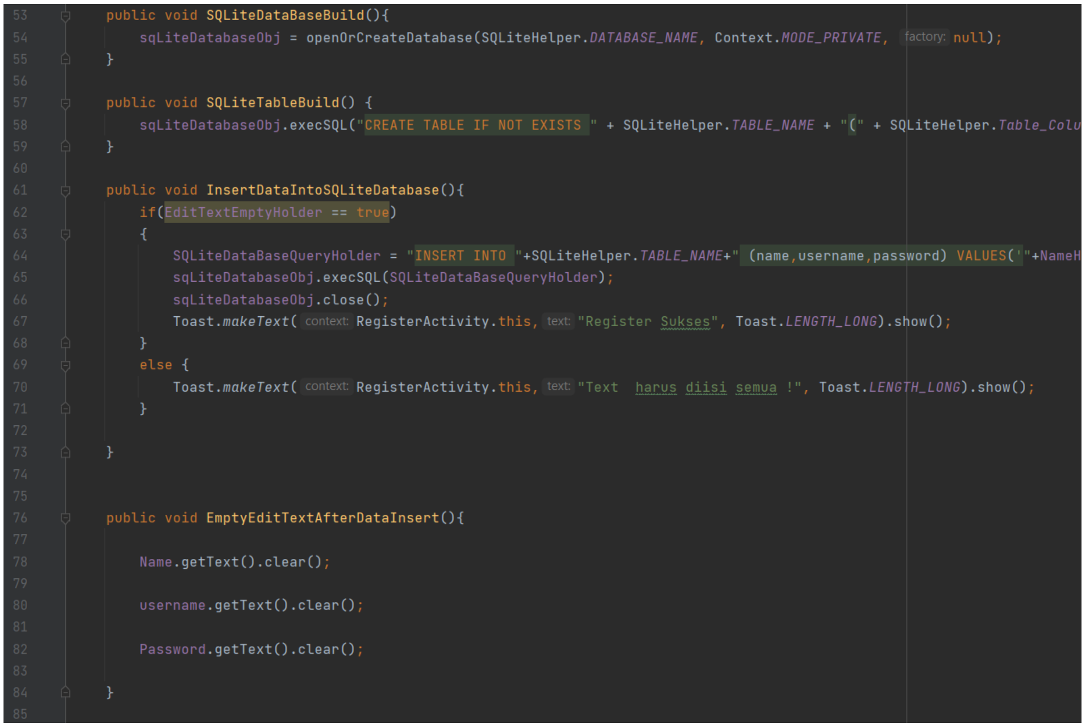
Class Register



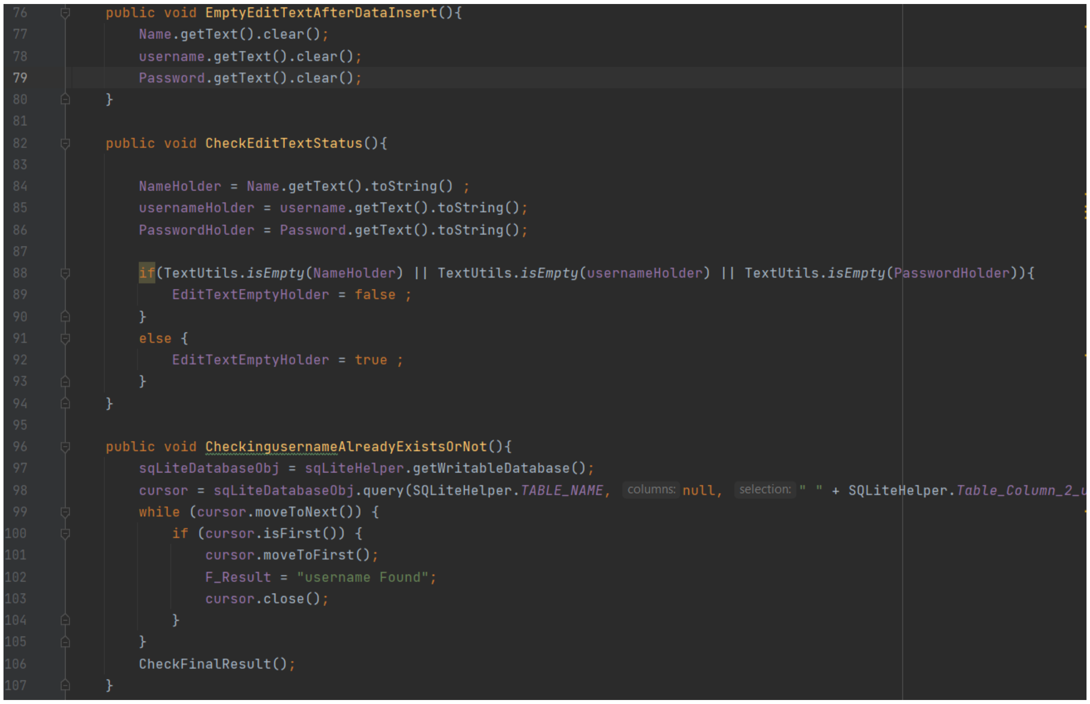
```
package com.example.shashank.login;

import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class RegisterActivity extends AppCompatActivity {

    EditText username, Password, Name ;
    Button Register;
    String NameHolder, usernameHolder, PasswordHolder;
    Boolean EditTextEmptyHolder;
    SQLiteDatabase sqLiteDatabaseObj;
    String SQLiteDataBaseQueryHolder ;
    SQLiteHelper sqLiteHelper;
    Cursor cursor;
    String F_Result = "Not_Found";

```



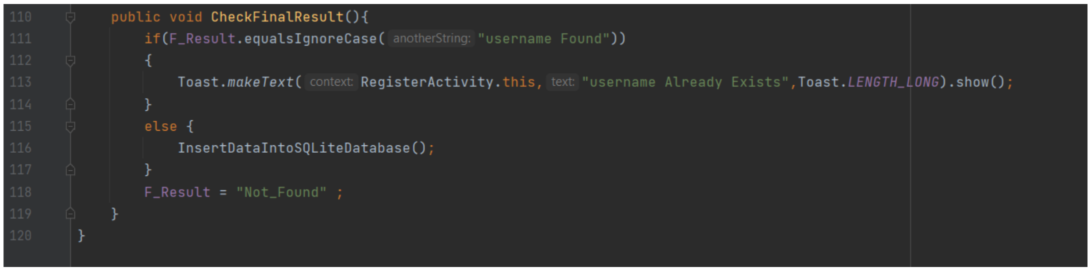
```java
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        Register = (Button)findViewById(R.id.buttonRegister);

        username = (EditText)findViewById(R.id.editEmail);
        Password = (EditText)findViewById(R.id.editPassword);
        Name = (EditText)findViewById(R.id.editName);

        sqLiteHelper = new SQLiteHelper( context: this);

        Register.setOnClickListener((view) → {
                SQLiteDataBaseBuild();
                SQLiteTableBuild();
                CheckEditTextStatus();
                CheckingusernameAlreadyExistsOrNot();
                EmptyEditTextAfterDataInsert();
        });

    }

```



```java
    public void SQLiteDataBaseBuild(){
        sqLiteDatabaseObj = openOrCreateDatabase(SQLiteHelper.DATABASE_NAME, Context.MODE_PRIVATE,  factory: null);
    }

    public void SQLiteTableBuild() {
        sqLiteDatabaseObj.execSQL("CREATE TABLE IF NOT EXISTS " + SQLiteHelper.TABLE_NAME + "(" + SQLiteHelper.Table_Colu
    }

    public void InsertDataIntoSQLiteDatabase(){
        if(EditTextEmptyHolder == true)
        {
            SQLiteDataBaseQueryHolder = "INSERT INTO "+SQLiteHelper.TABLE_NAME+" (name,username,password) VALUES('"+NameH
            sqLiteDatabaseObj.execSQL(SQLiteDataBaseQueryHolder);
            sqLiteDatabaseObj.close();
            Toast.makeText( context: RegisterActivity.this, text: "Register Sukses", Toast.LENGTH_LONG).show();
        }
        else {
            Toast.makeText( context: RegisterActivity.this, text: "Text  harus diisi semua !", Toast.LENGTH_LONG).show();
        }

    }


    public void EmptyEditTextAfterDataInsert(){

        Name.getText().clear();

        username.getText().clear();

        Password.getText().clear();

    }

```



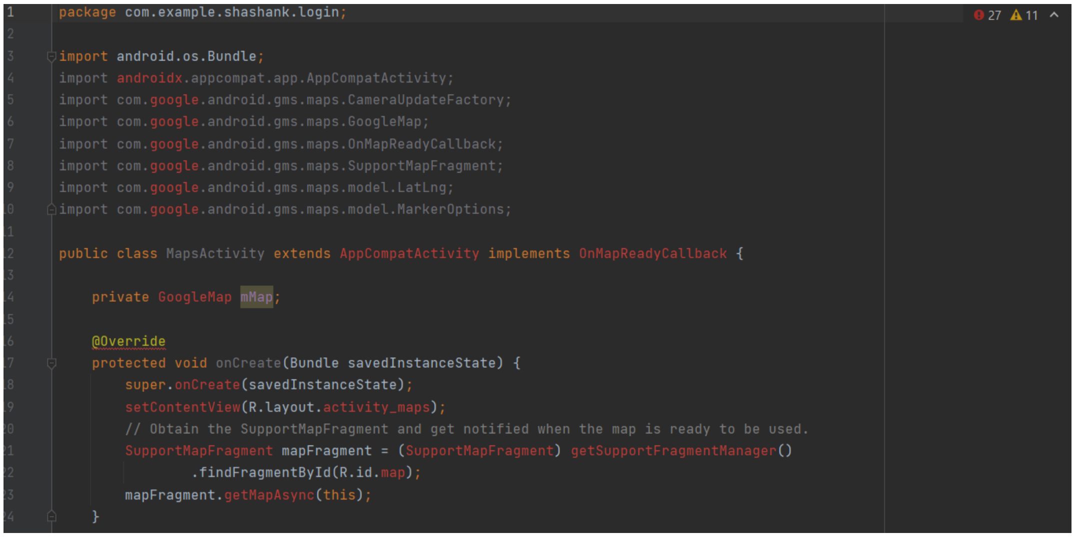
```java
    public void EmptyEditTextAfterDataInsert(){
        Name.getText().clear();
        username.getText().clear();
        Password.getText().clear();
    }

    public void CheckEditTextStatus(){

        NameHolder = Name.getText().toString() ;
        usernameHolder = username.getText().toString();
        PasswordHolder = Password.getText().toString();

        if(TextUtils.isEmpty(NameHolder) || TextUtils.isEmpty(usernameHolder) || TextUtils.isEmpty(PasswordHolder)){
            EditTextEmptyHolder = false ;
        }
        else {
            EditTextEmptyHolder = true ;
        }
    }

    public void CheckingusernameAlreadyExistsOrNot(){
        sqLiteDatabaseObj = sqLiteHelper.getWritableDatabase();
        cursor = sqLiteDatabaseObj.query(SQLiteHelper.TABLE_NAME,  columns: null,  selection: " " + SQLiteHelper.Table_Column_2_
        while (cursor.moveToNext()) {
            if (cursor.isFirst()) {
                cursor.moveToFirst();
                F_Result = "username Found";
                cursor.close();
            }
        }
        CheckFinalResult();
    }
```



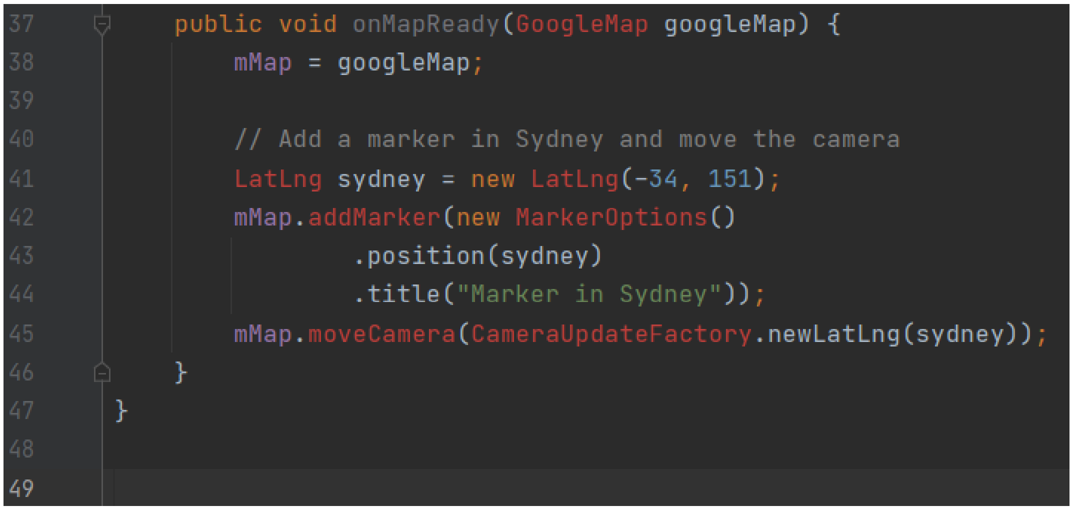
```java
    public void CheckFinalResult(){
        if(F_Result.equalsIgnoreCase( anotherString: "username Found"))
        {
            Toast.makeText( context: RegisterActivity.this,  text: "username Already Exists",Toast.LENGTH_LONG).show();
        }
        else {
            InsertDataIntoSQLiteDatabase();
        }
        F_Result = "Not_Found" ;
    }
}
```

c. Class yang paling kompleks (paling banyak atribut & methodnya, atau mengandung kode untuk pengaksesan API soal Tugas Pendahuluan, atau yang mengandung aspek "kecerdasan buatan" (jika ada))

Class Maps, karena memerlukan API dari Google



```java
package com.example.shashank.login;

import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import com.google.android.gms.maps.CameraUpdateFactory;
import com.google.android.gms.maps.GoogleMap;
import com.google.android.gms.maps.OnMapReadyCallback;
import com.google.android.gms.maps.SupportMapFragment;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.maps.model.MarkerOptions;

public class MapsActivity extends AppCompatActivity implements OnMapReadyCallback {

    private GoogleMap mMap;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_maps);
        // Obtain the SupportMapFragment and get notified when the map is ready to be used.
        SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()
                .findFragmentById(R.id.map);
        mapFragment.getMapAsync(this);
    }
```



```
    public void onMapReady(GoogleMap googleMap) {
        mMap = googleMap;

        // Add a marker in Sydney and move the camera
        LatLng sydney = new LatLng(-34, 151);
        mMap.addMarker(new MarkerOptions()
                .position(sydney)
                .title("Marker in Sydney"));
        mMap.moveCamera(CameraUpdateFactory.newLatLng(sydney));
    }
}

```