**Activity\_main.xml:**

<?xml version="1.0" encoding="utf-8"?>  
  
<fragment xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/map"  
 android:name="com.google.android.gms.maps.SupportMapFragment"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 tools:ignore="FragmentTagUsage" />

**MainActivity.java:**

package com.example.exp10;  
  
  
import androidx.annotation.NonNull;  
import androidx.core.app.ActivityCompat;  
import androidx.fragment.app.FragmentActivity;  
  
import android.content.pm.PackageManager;  
import android.location.Location;  
import android.location.LocationListener;  
import android.location.LocationManager;  
import android.os.Bundle;  
import android.Manifest;  
  
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 MainActivity extends FragmentActivity implements OnMapReadyCallback {  
 private GoogleMap mMap;  
 private LatLng latLng;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 // Obtain the SupportMapFragment and get notified when the map is ready to be used.  
 SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager().findFragmentById(R.id.map);  
 if (mapFragment != null) {  
 mapFragment.getMapAsync(this);  
 }  
  
 ActivityCompat.requestPermissions(this, new String[]{  
 Manifest.permission.ACCESS\_FINE\_LOCATION,  
 Manifest.permission.ACCESS\_COARSE\_LOCATION  
 }, PackageManager.PERMISSION\_GRANTED);  
 }  
  
 @Override  
 public void onMapReady(@NonNull GoogleMap googleMap) {  
 mMap = googleMap;  
  
 LocationListener locationListener = new LocationListener() {  
 @Override  
 public void onLocationChanged(@NonNull Location location) {  
 latLng = new LatLng(location.getLatitude(), location.getLongitude());  
 mMap.clear();  
 mMap.addMarker(new MarkerOptions().position(latLng).title("My position"));  
 mMap.moveCamera(CameraUpdateFactory.newLatLngZoom(latLng, 15));  
 }  
 };  
  
 LocationManager locationManager = (LocationManager) getSystemService(LOCATION\_SERVICE);  
 try {  
 long MIN\_DIST = 5;  
 long MIN\_TIME = 1000;  
 locationManager.requestLocationUpdates(LocationManager.GPS\_PROVIDER, MIN\_TIME, MIN\_DIST, locationListener);  
 } catch (SecurityException e) {  
 e.printStackTrace();  
 }  
 }  
}

**In local.properties and build.gradle:**

*MAPS\_API\_KEY=* AIzaSyBhy8HO5H5ZSdg\_FFPB7WbdmnxDM8EKZxg

**In AndroidManifest.xml:**

<meta-data  
 android:name="com.google.android.geo.API\_KEY"  
 android:value="AIzaSyBhy8HO5H5ZSdg\_FFPB7WbdmnxDM8EKZxg" />

Open your build.gradle (Module: app) file in Android Studio. Add the following lines under the dependencies section: implementation 'com.google.android.gms:play-services-maps:17.0.1' implementation 'com.google.android.gms:play-services-location:18.0.0'