10. Display Map based on the Current/given location.

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <fragment
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/id_map"
        android:name="com.google.android.gms.maps.SupportMapFragment"/>

</RelativeLayout>
```

MainActivity.java

```java
package com.example.gmapactivity;

import androidx.annotation.NonNull;
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;
```

```java
import android.os.Bundle;


public class MainActivity extends AppCompatActivity implements OnMapReadyCallback {
    private GoogleMap mMap;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);


        SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()
                .findFragmentById(R.id.id_map);
        mapFragment.getMapAsync(this);
    }
    @Override
    public void onMapReady(@NonNull GoogleMap googleMap) {
        LatLng location=new LatLng(12.9364 , 77.5782 );
        // co-ordinates of surana college 12.9364° N, 77.5782° E
        googleMap.addMarker(new MarkerOptions().position(location).title("Surana College"));
        googleMap.moveCamera(CameraUpdateFactory.newLatLngZoom(location,12));
    }
}
```

AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
    <uses-permission android:name="android.permission.INTERNET"/>
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE"/>
    <uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
    <application
```

```xml
        android:allowBackup="true"

        android:dataExtractionRules="@xml/data_extraction_rules"

        android:fullBackupContent="@xml/backup_rules"

        android:icon="@mipmap/ic_launcher"

        android:label="@string/app_name"

        android:roundIcon="@mipmap/ic_launcher_round"

        android:supportsRtl="true"

        android:theme="@style/Theme.GMapActivity"

        tools:targetApi="31">

        <activity

            android:name=".MainActivity"

            android:exported="true">

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />


                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

        <meta-data

            android:name="com.google.android.geo.API_KEY"

            android:value="YOUR_API_KEY" />

    </application>

</manifest>
```

build.gradle.kts(module:app)

```kotlin
dependencies {

    implementation("androidx.appcompat:appcompat:1.6.1")

    implementation("com.google.android.material:material:1.11.0")

    implementation("androidx.constraintlayout:constraintlayout:2.1.4")

    testImplementation("junit:junit:4.13.2")
```

androidTestImplementation("androidx.test.ext:junit:1.1.5")

androidTestImplementation("androidx.test.espresso:espresso-core:3.5.1")

implementation("com.google.android.gms:play-services-maps:18.2.0")

implementation("com.google.android.gms:play-services-location:21.2.0")

}

OUTPUT: