

26. GoogleMapSearch

Gradlescript

build.gradle (module app)

```
apply plugin: 'com.android.application'
```

```
android {
    compileSdkVersion 29
    buildToolsVersion "29.0.2"

    defaultConfig {
        applicationId "com.example.googlemapsearch"
        minSdkVersion 21
        targetSdkVersion 29
        versionCode 1
        versionName "1.0"

        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'),
'proguard-rules.pro'
        }
    }
}

dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])

    implementation 'androidx.appcompat:appcompat:1.1.0'
    implementation 'androidx.constraintlayout:constraintlayout:1.1.3'
    testImplementation 'junit:junit:4.12'
    androidTestImplementation 'androidx.test.ext:junit:1.1.1'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.2.0'
    implementation 'com.google.android.gms:play-services-maps:17.0.0'
}
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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/google_map"
        android:name="com.google.android.gms.maps.SupportMapFragment"/>

    <SearchView
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
```

```

        android:id="@+id/sv_location"
        android:queryHint="Search..."
        android:iconifiedByDefault="false"
        android:layout_margin="10dp"
        android:elevation="5dp"
        android:background="@drawable/bg_round"/>

</androidx.constraintlayout.widget.ConstraintLayout>

bg_round.xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <solid android:color="@android:color/white"></solid>
    <stroke android:width="3dp"
android:color="@android:color/holo_green_light"></stroke>
    <corners android:radius="8dp"/>

</shape>

string.xml
<resources>
    <string name="app_name">GoogleMapSearch</string>
    <string name="map_key" translatable="false">AIzaSyB_qsP8AOP_P0Md1Pz-
48TDaJYjTP3vbjo</string>
</resources>

AndroidManifest.xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.googlemapsearch">
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
    <uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">

        <meta-data android:name="com.google.android.geo.API_KEY"
android:value="@string/map_key"/>

        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>

```

MainActivity.java

```
package com.example.googlemapsearch;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.FragmentActivity;

import android.location.Address;
import android.location.Geocoder;
import android.os.Bundle;
import android.widget.SearchView;

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;

import java.io.IOException;
import java.util.List;

public class MainActivity extends FragmentActivity implements OnMapReadyCallback
{
    GoogleMap map;
    SupportMapFragment mapFragment;
    SearchView searchView;

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

        searchView = findViewById(R.id.sv_location);
        mapFragment = (SupportMapFragment)
getSupportFragmentManager().findFragmentById(R.id.google_map);

        searchView.setOnQueryTextListener(new SearchView.OnQueryTextListener()
        {
            @Override
            public boolean onQueryTextSubmit(String query)
            {
                String location = searchView.getQuery().toString();
                List<Address> addressList = null;

                if(location != null || !location.equals(""))
                {
                    Geocoder geocoder = new Geocoder(MainActivity.this);
                    try
                    {
                        {
                            addressList = geocoder.getFromLocationName(location,1);
                        }
                        catch (IOException e)
                        {
                            e.printStackTrace();
                        }
                        Address address = addressList.get(0);
                        LatLng latLng = new
LatLng(address.getLatitude(),address.getLongitude());
```

```

        map.addMarker(new
MarkerOptions().position(latLng).title(location));

map.animateCamera(CameraUpdateFactory.newLatLngZoom(latLng,10));
    }
    return false;
}

@Override
public boolean onQueryTextChange(String newText)
{
    return false;
}
});

mapFragment.getMapAsync(this);
}

@Override
public void onMapReady(GoogleMap googleMap)
{
    map = googleMap;
}
}

```

