**MapsActivity.java**

**public class** MapsActivity **extends** FragmentActivity **implements** OnMapReadyCallback {  
 **private** GoogleMap **mMap**;  
 **private** TextView **tv**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_maps***);  
 SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()  
 .findFragmentById(R.id.***map***);  
 mapFragment.getMapAsync(**this**);  
 }  
  
 @Override  
 **public void** onMapReady(GoogleMap googleMap) {  
 **mMap** = googleMap;LatLng sydney = **new** LatLng(-35, 121.5);  
 **mMap**.addMarker(**new** MarkerOptions().position(sydney).title(**"Marker"**));  
 **mMap**.moveCamera(CameraUpdateFactory.*newLatLng*(sydney));  
 }  
  
 **public void** setmMap(GoogleMap mMap) {  
 **this**.**mMap** = mMap; }  
  
 **public void** onSearch(View view) {  
 List<Address> addressList=**null**;  
 EditText et\_location= (EditText) findViewById(R.id.***et1***);  
 String location=et\_location.getText().toString();  
 **if**(location!=**null** || location.equals(**""**)){  
 Geocoder geocoder=**new** Geocoder(**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());  
 **mMap**.addMarker(**new** MarkerOptions().position(latLng).title(location));  
 **mMap**.animateCamera(CameraUpdateFactory.*newLatLng*(latLng ));  
 }  
 }  
  
 **public void** onType(View view) {  
 **if**(**mMap**.getMapType()== GoogleMap.***MAP\_TYPE\_NORMAL***){  
 **mMap**.setMapType(GoogleMap.***MAP\_TYPE\_SATELLITE***);  
 }**else**{ **mMap**.setMapType(GoogleMap.***MAP\_TYPE\_NORMAL***); }  
 }  
  
 **public void** onZoom(View view) {  
 **if**(view.getId()==R.id.***zoomin***){  
 **mMap**.animateCamera(CameraUpdateFactory.*zoomIn*());  
 } **if**(view.getId()==R.id.***zoomout***){**mMap**.animateCamera(CameraUpdateFactory.*zoomOut*());  
 }  
 }  
  
}

**activity\_maps.xml**

<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:orientation="vertical"  
 android:layout\_height="400dp"**>  
 <**LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:id="@+id/ll1"**>  
 <**EditText  
 android:id="@+id/et1"  
 android:layout\_width="196dp"  
 android:layout\_height="wrap\_content"** />  
 <**Button  
 android:id="@+id/searchbut"  
 android:layout\_width="98dp"  
 android:layout\_height="wrap\_content"  
 android:onClick="onSearch"  
 android:text="Search"** />  
 <**Button  
 android:id="@+id/typebut"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="onType"  
 android:text="Type"** />  
 </**LinearLayout**>  
 <**LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:layout\_below="@id/ll1"  
 android:id="@+id/linearLayout"  
 android:layout\_alignParentBottom="true"**>  
 <**fragment xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/map" android:layout\_below="@id/ll1"  
 android:name="com.google.android.gms.maps.SupportMapFragment"  
 android:layout\_width="343dp"  
 android:layout\_height="match\_parent"  
 tools:context="com.example.mohan.demomaps.MapsActivity"** />  
 <**LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"**>  
 <**Button  
 android:id="@+id/zoomin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="69dp"  
 android:onClick="onZoom"  
 android:text="+"** />  
 <**Button  
 android:id="@+id/zoomout"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="68dp"  
 android:onClick="onZoom"  
 android:text="-"** />  
 </**LinearLayout**>  
 </**LinearLayout**>  
</**RelativeLayout**>

**Permissions**

<**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"**/>  
<**uses-permission android:name="android.permission.ACCESS\_NETWORK\_STATE"**/>  
<**uses-permission android:name="android.permission.WRITE\_EXTERNAL\_STORAGE"** />  
<**uses-permission android:name="com.google.android.providers.gsf.permission.READ\_GSERVICES"** />