1. **Write a program to draw a route between two locations.**

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activity_main.xml

```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:id="@+id/maps"        android:layout_width="match_parent"
android:layout_height="match_parent"
      android:name="com.google.android.gms.maps.SupportMapFragment" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```java
package com.example.pr32;
public class MainActivity extends AppCompatActivity implements
OnMapReadyCallback {
   GoogleMap maps; MarkerOptions place1,place2;
   @Override    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);        setContentView(R.layout.activity_main);
SupportMapFragment mapFragment = (SupportMapFragment)
getSupportFragmentManager().findFragmentById(R.id.maps);
mapFragment.getMapAsync(this); }
   @Override
public void onMapReady(@NonNull GoogleMap googleMap) {
maps = googleMap;
     place1 = new MarkerOptions().position(new
LatLng(16.7015,74.4777)).title("Location1");        place2 = new
MarkerOptions().position(new LatLng(16.867634,74.570389)).title("Location2");
maps.addMarker(place1);        maps.addMarker(place2);
drawPolyLine(place1.getPosition(),place2.getPosition());
maps.moveCamera(CameraUpdateFactory.newLatLngZoom(place1.getPosition(),
12));
   }
   private void drawPolyLine(LatLng position, LatLng position1) {
PolylineOptions line = new PolylineOptions();        line.add(position,position1);
line.width(5);        line.color(Color.RED);        maps.addPolyline(line); } }
```

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Dependency (build.gradle) – implementation("com.google.android.gms:play-services-maps:18.2.0")Permission (AndroidManifest.xml) –
<uses-permission android:name="android.permission.INTERNET"/>
<uses-permission
android:name="android.permission.ACCESS_FINE_LOCATION"/>
<uses-permission
android:name="android.permission.ACCESS_NETWORK_STATE"/>
<uses-permission
android:name="android.permission.ACCESS_COARSE_LOCATION"/>

Output –