

MainActivity.java

```
package com.app.locationapplication;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import android.content.pm.PackageManager;
import android.location.Address;
import android.location.Geocoder;
import android.location.Location;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import com.google.android.gms.location.FusedLocationProviderClient;
import com.google.android.gms.location.LocationServices;
import com.google.android.gms.tasks.OnSuccessListener;
import java.io.IOException;
import java.util.ArrayList;

import static android.Manifest.permission.ACCESS_FINE_LOCATION;

public class MainActivity extends AppCompatActivity {
    private FusedLocationProviderClient client;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        final Geocoder coder = new Geocoder(this);
        Button getLocation = findViewById(R.id.getLocation);
        Button getAddress = findViewById(R.id.getAddress);
        final EditText addressText = findViewById(R.id.addressText);
        final TextView latView1 = findViewById(R.id.locationLat1);
        final TextView longView1 = findViewById(R.id.locationLong1);
        final TextView latView = findViewById(R.id.locationLat);
        final TextView longView = findViewById(R.id.locationLong);
        ActivityCompat.requestPermissions(this, new String[] {ACCESS_FINE_LOCATION}, 1);
        client = LocationServices.getFusedLocationProviderClient(this);
        getLocation.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                client.getLastLocation().addOnSuccessListener(MainActivity.this, new
                OnSuccessListener<Location>() {
```

```

@Override
public void onSuccess(Location location) {
    if(location != null) {
        Double lng = (double) Math.round(location.getLongitude() * 100) / 100;
        Double lat = (double) Math.round(location.getLatitude() * 100) / 100;
        latView.setText(lat.toString());
        longView.setText(lng.toString());
    }
}
});
}
});
getAddress.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
    ArrayList<Address> addresses = null;
    try {
        String address = addressText.getText().toString();
        addresses = (ArrayList<Address>) coder.getFromLocationName(address, 1);
        for(Address add: addresses){
            Double lng = (double) Math.round(add.getLongitude() * 100) / 100;
            Double lat = (double) Math.round(add.getLatitude() * 100) / 100;
            latView1.setText(lat.toString());
            longView1.setText(lng.toString());
        }
    }
    catch (IOException e) {
        e.printStackTrace();
    }
}
});
}
}

```

Activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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">

```

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

    <RelativeLayout
        android:id="@+id/container"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="70px"
        android:layout_marginTop="70px"
        android:layout_marginEnd="70px"
        android:layout_marginBottom="70px">

        <TextView
            android:id="@+id/latText"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="25px"
            android:layout_marginTop="10px"
            android:layout_marginRight="25px"
            android:text="Latitude:" />

        <TextView
            android:id="@+id/locationLat"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginRight="20px"
            android:layout_toRightOf="@id/latText"
            android:text="00.00"
            android:textSize="44px"
            android:textStyle="bold" />

        <TextView
            android:id="@+id/longText"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="10px"
            android:layout_marginRight="25px"
            android:layout_toRightOf="@id/locationLat"
            android:text="Longitude:" />

        <TextView
            android:id="@+id/locationLong"
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_toRightOf="@id/longText"
    android:text="00.00"
    android:textSize="44px"
    android:textStyle="bold" />
```

```
<Button
    android:id="@+id/getLocation"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/locationLat"
    android:layout_marginStart="25px"
    android:layout_marginTop="25px"
    android:layout_marginEnd="25px"
    android:layout_marginBottom="25px"
    android:text="Get Location" />
```

```
</RelativeLayout>
```

```
<RelativeLayout
    android:layout_below="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="70px">
```

```
<EditText
    android:id="@+id/addressText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginStart="25px"
    android:layout_marginTop="25px"
    android:layout_marginEnd="25px"
    android:layout_marginBottom="25px"
    android:hint="Enter location" />
```

```
<Button
    android:id="@+id/getAddress"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/addressText"
    android:layout_marginStart="25px"
    android:layout_marginTop="25px"
    android:layout_marginEnd="25px"
    android:layout_marginBottom="25px"
```

```
        android:text="Get Coordinates" />

<TextView
    android:id="@+id/latText1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/getAddress"
    android:layout_marginLeft="25px"
    android:layout_marginTop="10px"
    android:layout_marginRight="25px"
    android:text="Latitude:" />

<TextView
    android:id="@+id/locationLat1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/getAddress"
    android:layout_marginRight="20px"
    android:layout_toRightOf="@id/latText1"
    android:text="00.00"
    android:textSize="44px"
    android:textStyle="bold" />

<TextView
    android:id="@+id/longText1"
    android:layout_below="@id/getAddress"
    android:layout_marginTop="10px"
    android:layout_marginRight="25px"
    android:layout_toRightOf="@id/locationLat1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Longitude:"
/>

<TextView
    android:id="@+id/locationLong1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/getAddress"
    android:layout_toRightOf="@id/longText1"
    android:text="00.00"
    android:textSize="44px"
    android:textStyle="bold" />
```

```
</RelativeLayout>
```

```
</RelativeLayout>
```

```
</LinearLayout>
```

OUTPUT:



