```java
package cocomo.lab;
import android.Manifest;
import android.content.Context;
import android.content.pm.PackageManager;
import android.location.Address;
import android.location.Geocoder;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.support.v4.app.ActivityCompat;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import java.util.List;
public class ex8_main extends AppCompatActivity implements LocationListener {
        TextView tv_lat,tv_log;
        @Override
        protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.ex8_main);
                tv_lat=findViewById(R.id.tv_lat);
                tv_log=findViewById(R.id.tv_log);
                final EditText et_name=findViewById(R.id.et_name);
                Button bt_get=findViewById(R.id.bt_get);
                LocationManager locationManager = (LocationManager) getSystemService(Context.LOCATION_SERVICE);
                if (ActivityCompat.checkSelfPermission(this, Manifest.permission.ACCESS_FINE_LOCATION) !=
PackageManager.PERMISSION_GRANTED && ActivityCompat.checkSelfPermission(this,
Manifest.permission.ACCESS_COARSE_LOCATION) != PackageManager.PERMISSION_GRANTED) {
                        return;
                }
                locationManager.requestLocationUpdates(LocationManager.GPS_PROVIDER, 0, 0, (LocationListener) this);
                bt_get.setOnClickListener(new View.OnClickListener() {
                        @Override
                        public void onClick(View v) {
                                try {
                                        Geocoder geocoder = new Geocoder(ex8_main.this);
                                        List<Address> list = geocoder.getFromLocationName(et_name.getEditableText().toString(), 1);
                                        if(list!=null && list.size()>0){
                                                Address adr=list.get(0);
                                                tv_lat.setText(Double.toString(adr.getLatitude()));
                                                tv_log.setText(Double.toString(adr.getLongitude()));
                                        }
                                }
                                catch (Exception e){
                                        e.printStackTrace();
                                }
                        }
                });
        }
        @Override
        public void onLocationChanged(Location location) {
                tv_lat.setText(Double.toString(location.getLatitude()));
                tv_log.setText(Double.toString(location.getLongitude()));
        }
        @Override
        public void onStatusChanged(String provider, int status, Bundle extras) {
        }
        @Override
        public void onProviderEnabled(String provider) {
        }
        @Override
        public void onProviderDisabled(String provider) {
        }
```

}

//ex8_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="cocomo.lab.ex8_main">
    <EditText
        android:id="@+id/et_name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Place name"
        android:textSize="20dp"/>
    <TextView
        android:id="@+id/tv_lat"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/et_name"
        android:maxLength="7"
        android:textSize="20dp"/>
    <TextView
        android:id="@+id/tv_log"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tv_lat"
        android:maxLength="7"
        android:textSize="20dp"/>
    <Button
        android:id="@+id/bt_get"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_below="@+id/tv_log"
        android:text="GET"/>
</RelativeLayout>
```