Name : V Vikram Class : CSE 'C'

Subject: UCS1711---Mobile Application Development Lab

Ex. No. 7 GPS location information

To develop a native application that uses GPS location information, and displays the latitude and longitude of the given place.

CODE:

Activity main.xml:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:paddingBottom="@dimen/activity vertical margin"
  android:paddingLeft="@dimen/activity horizontal margin"
  android:paddingRight="@dimen/activity horizontal margin"
  android:paddingTop="@dimen/activity vertical margin"
  tools:context=".MainActivity" >
  <Button
    android:id="@+id/button1"
    android:layout width="133dp"
    android:layout height="34dp"
    android:layout below="@+id/textView1"
    android:layout marginTop="244dp"
    android:text="OK" />
  <EditText
```

```
android:id="@+id/location"
android:layout_width="269dp"
android:layout_height="wrap_content"
android:layout_below="@+id/textView1"
android:layout_alignRight="@+id/button1"
android:layout_marginTop="66dp"
android:layout_marginRight="-63dp"
android:ems="10">

<requestFocus />
</EditText>

</RelativeLayout>
```

MainActivity.java:

```
package com.example.geocode;
import java.io.IOException;
import java.util.List;
import java.util.Locale;
import android.location.Address;
import android.location.Geocoder;
import android.os.Bundle;
import android.app.Activity;
import android.util.Log;
import android.view.Menu;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends Activity {
  double latitude, longitude;
  EditText locationName;
  Button okbtn;
  TextView result;
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity main);
  locationName = (EditText) findViewById(R.id.location);
  okbtn = (Button) findViewById(R.id.button1);
  result = (TextView) findViewById(R.id.textView1);
  // Log.v("msg",(Locale.getDefault().toString()));
  okbtn.setOnClickListener(new View.OnClickListener() {
     @Override
     public void onClick(View v) {
       // TODO Auto-generated method stub
       Geocoder geocoder = new Geocoder(getBaseContext(), Locale
            .getDefault());
       try {
         List<Address> address:
         address = geocoder.getFromLocationName(locationName
               .getText().toString(), 1);
         if (address.size() > 0) {
            latitude = address.get(0).getLatitude();
            longitude = address.get(0).getLongitude();
         }
       } catch (IOException e) {
         // TODO Auto-generated catch block
         e.printStackTrace();
       } finally {
       }
       result.setText("" + latitude + "\n" + longitude);
    }
  });
@Override
public boolean onCreateOptionsMenu(Menu menu) {
```

```
// Inflate the menu; this adds items to the action bar if it is present.
getMenuInflater().inflate(R.menu.main, menu);
return true;
}
}
```

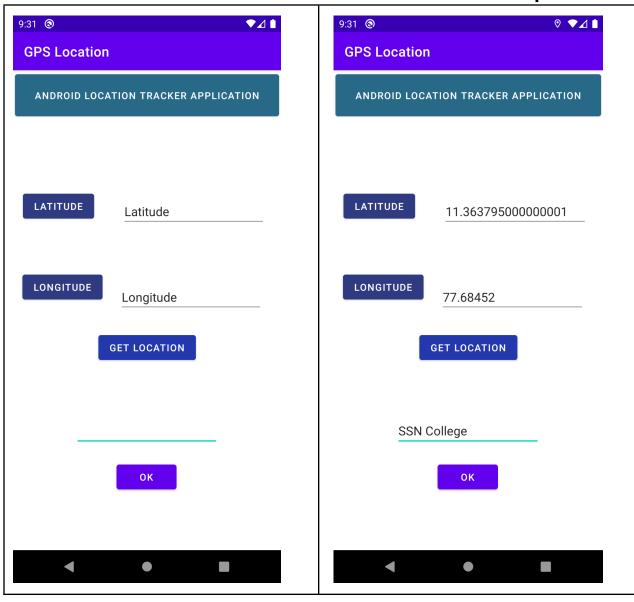
AndroidManifest.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.geocode">
  <application
    android:allowBackup="true"
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app name"
    android:roundlcon="@mipmap/ic launcher round"
    android:supportsRtl="true"
    android:theme="@style/Theme.Geocode">
    <activity
       android:name=".MainActivity"
       android:exported="true">
       <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
       </intent-filter>
    </activity>
  </application>
</manifest>
```

Output Snapshots:

Home Screen

GPS location of input



LEARNING OUTCOME: