

Ex.No: 5

Date :

## Develop a native application that uses GPS location information

### AIM:

To develop a native application that uses GPS location information.

### PROCEDURE:

1. Open Eclipse IDE.
2. Create the project Ex\_No\_5.
3. Go to package explorer in the left hand side. Select the project Ex\_No\_5.
4. Go to res folder and select layout. Double click the activity\_main.xml file.
5. Now you can see the Graphical layout window.
6. Drag and drop the following components:
  - a. One TextView with text as Current Location
  - b. Two TextViews without any texts.
7. Again go to package explorer in the left hand side. Select the project Ex\_No\_5.
8. Go to src folder. Double click the MainActivity.java file.
9. In java file write the activities done by the application such as finding current location and print them.
10. Get the following permission in AndroidManifest.xml file:

```
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
```

11. Finally run the android application.

### PROGRAMS:

activity\_main.xml:

```
<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"
    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="com.example.ex_no_5.MainActivity" >

    <TextView
        android:id="@+id/textView1
```

```
"
    android:layout_width="wrap
    _content"
    android:layout_height="wra
    p_content"
    android:layout_alignParent
    Left="true"
    android:layout_alignParent
    Right="true"
    android:layout_alignParent
    Top="true"
    android:layout_marginTop="
    114dp" android:text=""
    android:textAppearance="?android:attr/textAppearanceMedium"
```

```
tools:ignore="HardcodedText" />
```

```
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_c
    ontent"
    android:layout_height="wrap_
    content"
    android:layout_alignLeft="@+
    id/textView1"
    android:layout_alignParentRi
    ght="true"
    android:layout_below="@+id/t
    extView1"
    android:layout_marginTop="51
    dp" android:text=""
    android:textAppearance="?android:attr/textAppearanceMedium"
    tools:ignore="HardcodedText" />
```

```
<TextView
    android:id="@+id/textView3"
    "
    android:layout_width="wrap
    _content"
    android:layout_height="wra
    p_content"
    android:layout_alignParent
    Top="true"
    android:layout_centerHoriz
    ontal="true"
    android:layout_marginTop="
    47dp"
    android:text="Current
    Location"
```

```

        android:textAppearance="?android:attr/textAppearanceLarge"
        tools:ignore="HardcodedText" />

```

```

</RelativeLayout>

```

*MainActivity.java:*

```

package com.example.ex_no_5;
import
android.support.v7.app.ActionBarActivity;
import
android.content.Context;
import
android.location.Criteria;
import
android.location.Location;
import
android.location.LocationListener;
import
android.location.LocationManager;
import android.os.Bundle;
import
android.widget.TextView;
import
android.widget.Toast;
public class MainActivity extends ActionBarActivity implements LocationListener{
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        {
            super.onCreate(savedInstanceState);
            setContentView(R.layout.activity_main);
            LocationManager
            lm=(LocationManager)getSystemService(Context.LOCATION_SERVICE);
            Criteria c=new Criteria();
            String s=lm.getBestProvider(c,
            false); if(s!=null && !s.equals(""))
            {
                Location
                l=lm.getLastKnownLocation(s);
                lm.requestLocationUpdates(s,
                20000, 1, this); if(l!=null)
                onLocationChanged(l);
            else
                Toast.makeText(getApplicationContext(), "Location can't
                be
                retrieved",
                Toast.LENGTH_LONG
                ).show(); }

            else
                Toast.makeText(getApplicationContext(), "Provider not found
                !!!", Toast.LENGTH_LONG).show();

```

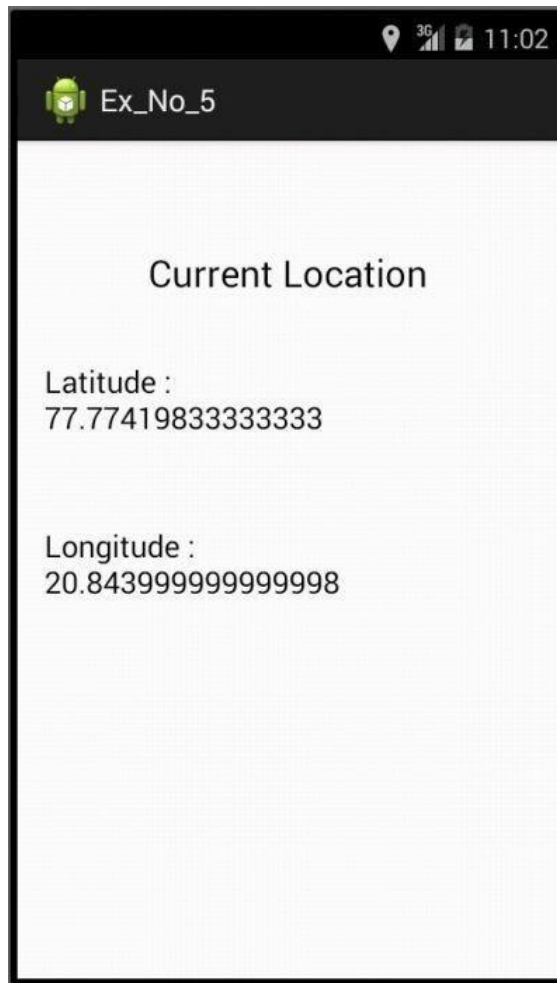
```

    }
    @O
    v
    e
    r
    r
    i
    d
    e
    public void onLocationChanged(Location arg0) {
        // TODO Auto-generated method stub
        TextView
        t1=(TextView)findViewById(R.id.textVie
        w1);      t1.setText("Latitude      :
        \n"+arg0.getLatitude());      TextView
        t2=(TextView)findViewById(R.id.textVie
        w2);      t2.setText("Longitude      :
        \n"+arg0.getLongitude());
    }
    @O
    v
    e
    r
    r
    i
    d
    e
    public void
    onProviderDisabled(String
    arg0) { // TODO Auto-
    generated method stub
    }
    @O
    v
    e
    r
    r
    i
    d
    e
    public void
    onProviderEnabled(String
    arg0) { // TODO Auto-
    generated method stub
    }
    @O
    v

```

```
e  
r  
r  
i  
d  
e  
public void onStatusChanged(String arg0, int arg1,  
Bundle arg2) { // TODO Auto-generated method stub }  
}
```

**OUTPUT:**



**RESULT:**

Thus the application that uses GPS location information has been developed and the output was verified.

