

ASSIGNMENT 6

Mobile Application Development

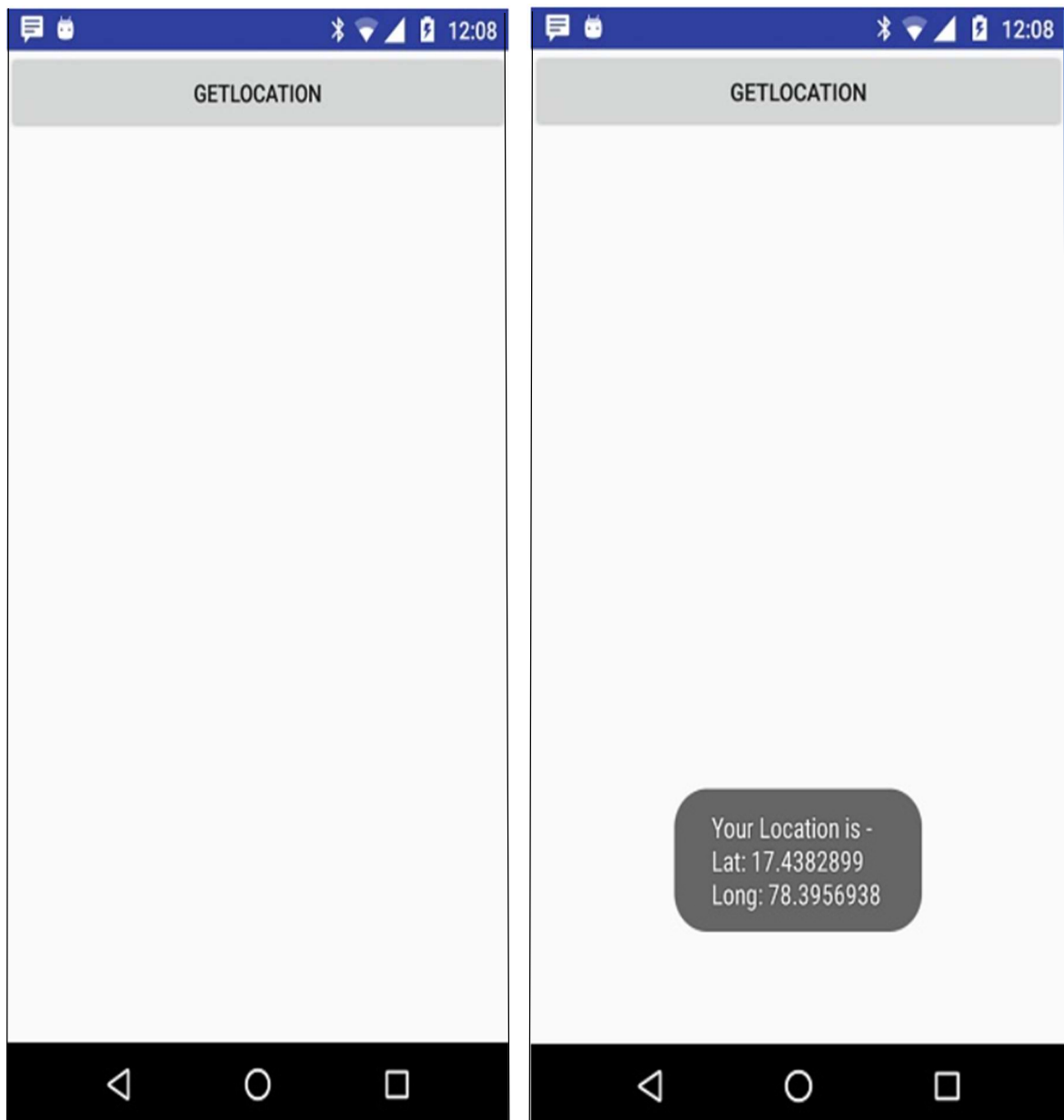
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Data: 12-04-2022

Output:



Code for Activity_main.xml:

```
<?xml version = "1.0" encoding = "utf-8"?>
<LinearLayout xmlns:android = "http://schemas.android.com/apk/res/android"
    android:layout_width = "fill_parent"
    android:layout_height = "fill_parent"
    android:orientation = "vertical" >

    <Button
        android:id = "@+id/button"
        android:layout_width = "fill_parent"
        android:layout_height = "wrap_content"
        android:text = "getlocation"/>

</LinearLayout>
```

Code for MainActivity.java:

```
package com.javacodegeeks.android.lbs;

import android.app.Activity;
import android.content.Context;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.Toast;

public class LbsGeocodingActivity extends Activity {

    private static final Long MINIMUM_DISTANCE_CHANGE_FOR_UPDATES = 1; // in
Meters
    private static final Long MINIMUM_TIME_BETWEEN_UPDATES = 1000; // in
Milliseconds

    protected LocationManager locationManager;

    protected Button retrieveLocationButton;

    @Override
    public void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
```

```

        retrieveLocationButton = (Button)
findViewById(R.id.retrieve_location_button);

        locationManager = (LocationManager)
getSystemService(Context.LOCATION_SERVICE);

        locationManager.requestLocationUpdates(
            locationManager.GPS_PROVIDER,
            MINIMUM_TIME_BETWEEN_UPDATES,
            MINIMUM_DISTANCE_CHANGE_FOR_UPDATES,
            new MyLocationListener()
        );

        retrieveLocationButton.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View v) {
                showCurrentLocation();
            }
        });
    }

    protected void showCurrentLocation() {

        Location location =
locationManager.getLastKnownLocation(LocationManager.GPS_PROVIDER);

        if (location != null) {
            String message = String.format(
                "Current Location \n Longitude: %1$s \n Latitude: %2$s",
                location.getLongitude(), location.getLatitude()
            );
            Toast.makeText(LbsGeocodingActivity.this, message,
                Toast.LENGTH_LONG).show();
        }
    }

    private class MyLocationListener implements LocationListener {

        public void onLocationChanged(Location location) {
            String message = String.format(
                "New Location \n Longitude: %1$s \n Latitude: %2$s",
                location.getLongitude(), location.getLatitude()
            );
            Toast.makeText(LbsGeocodingActivity.this, message,
                Toast.LENGTH_LONG).show();
        }
    }

```

```

        public void onStatusChanged(String s, int i, Bundle b) {
            Toast.makeText(LbsGeocodingActivity.this, "Provider status
changed",
                Toast.LENGTH_LONG).show();
        }

        public void onProviderDisabled(String s) {
            Toast.makeText(LbsGeocodingActivity.this,
                "Provider disabled by the user. GPS turned off",
                Toast.LENGTH_LONG).show();
        }

        public void onProviderEnabled(String s) {
            Toast.makeText(LbsGeocodingActivity.this,
                "Provider enabled by the user. GPS turned on",
                Toast.LENGTH_LONG).show();
        }
    }
}

```

Code for AndroidManifest.xml :

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.javacodegeeks.android.lbs"
    android:versionCode="1"
    android:versionName="1.0">

    <application android:icon="@drawable/icon"
        android:label="@string/app_name">
        <activity android:name=".LbsGeocodingActivity"
            android:label="@string/app_name">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

    </application>

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

    <uses-sdk android:minSdkVersion="3" />
</manifest>

```

