

## Practical No 31

### X.1

- **Program**
- **XML File:**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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:id="@+id/emergncy"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <fragment
        android:id="@+id/google_map"
        android:name="com.google.android.gms.maps.SupportMapFragment"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />
</RelativeLayout>
```

- **JAVA File:**

```
package com.example.pr_31_1;
import android.Manifest;
import android.app.Activity;
import android.content.pm.PackageManager;
import android.location.Location;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import com.google.android.gms.location.FusedLocationProviderClient;
import com.google.android.gms.location.LocationServices;
import com.google.android.gms.maps.CameraUpdateFactory;
import com.google.android.gms.maps.GoogleMap;
```

```

import com.google.android.gms.maps.OnMapReadyCallback;
import com.google.android.gms.maps.SupportMapFragment;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.maps.model.MarkerOptions;
import com.google.android.gms.tasks.OnSuccessListener;

public class MainActivity extends AppCompatActivity {
    FusedLocationProviderClient client;
    SupportMapFragment;

    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        this.supportMapFragment = (SupportMapFragment)
getSupportFragmentManager().findFragmentById(R.id.google_map);
        this.client =
LocationServices.getFusedLocationProviderClient((Activity) this);
        if (ActivityCompat.checkSelfPermission(this,
"android.permission.ACCESS_FINE_LOCATION") == 0) {
            getCurrentLocation();
        } else {
            ActivityCompat.requestPermissions(this, new
String[]{ "android.permission.ACCESS_FINE_LOCATION" }, 44);
        }
    }

    private void getCurrentLocation() {
        if (ActivityCompat.checkSelfPermission(this,
Manifest.permission.ACCESS_FINE_LOCATION) !=
PackageManager.PERMISSION_GRANTED &&
ActivityCompat.checkSelfPermission(this,
Manifest.permission.ACCESS_COARSE_LOCATION) !=
PackageManager.PERMISSION_GRANTED) {
            // TODO: Consider calling
            // ActivityCompat#requestPermissions
            // here to request the missing permissions, and then overriding
            // public void onRequestPermissionsResult(int requestCode,

```

```

String[] permissions,
// int[] grantResults)
// to handle the case where the user grants the permission. See
the documentation
// for ActivityCompat#requestPermissions for more details.
return;
}
this.client.getLastLocation().addOnSuccessListener(new
OnSuccessListener<Location>() {
    public void onSuccess(final Location location) {
        if (location != null) {
            MainActivity.this.supportMapFragment.getMapAsync(new
            OnMapReadyCallback() {
                public void onMapReady(GoogleMap googleMap) {
                    LatLng = new LatLng(location.getLatitude(),
                    location.getLongitude());
                    MarkerOptions options = new
                    MarkerOptions().position(latLng).title("User Location");

                    googleMap.animateCamera(CameraUpdateFactory.newLatLngZoom(latLng, 15.0f));
                    googleMap.addMarker(options);
                }
            });
        }
    }
});

public void onRequestPermissionsResult(int requestCode, String[]
permissions, int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions,
    grantResults);
    if (requestCode == 44 && grantResults.length > 0 && grantResults[0]
    == 0) {
        getCurrentLocation();
    }
}

```

```
}  
}  
}
```

- **Manifest File:**

```
<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
    package="com.example.pr_31_1">  
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />  
    <uses-permission android:name="android.permission.INTERNET" />  
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />  
    <uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"  
    />  
    <application  
        android:allowBackup="true"  
        android:icon="@mipmap/ic_launcher"  
        android:label="@string/app_name"  
        android:roundIcon="@mipmap/ic_launcher_round"  
        android:supportRtl="true"  
        android:theme="@style/Theme.MAD">  
        <meta-data  
            android:name="com.google.android.geo.API_KEY"  
            android:value="AIzaSyAQRHaTav_VOMpQS3heqYJj6-WE_LB72K4" />  
        <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:**

