Practical No. 32- Program to display route between two points using Google Map

*Activity\_main.xml*

*<?*xml version="1.0" encoding="utf-8"*?>*

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:orientation="vertical" android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:padding="20dp" tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Draw Route Activity" android:layout\_marginTop="20dp" android:layout\_gravity="center\_horizontal" style="@style/TextAppearance.AppCompat.Large"

/>

<EditText

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/source" android:hint="Enter Source" android:layout\_marginTop="20dp" android:layout\_gravity="start"

style="@style/TextAppearance.AppCompat.Large"/>

<EditText

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/destination" android:hint="Enter Destination" android:layout\_marginTop="20dp" android:layout\_gravity="start" style="@style/TextAppearance.AppCompat.Large"/>

<Button

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/Draw" android:text="Draw"

android:layout\_gravity="center\_horizontal" android:layout\_marginTop="20dp" style="@style/TextAppearance.AppCompat.Large"

/>

</LinearLayout>

Edit – buid.gradle (:app) from Gradle Scripts under Project directory

Under Dependencies- Add the following implementations and Sync your Project

implementation **'com.google.android.gms:play-services-maps:17.0.0'** implementation **'com.google.android.gms:play-services-location:17.0.0'** implementation **'com.karumi:dexter:6.2.1'**

**AndroidManifest.xml (add metadata dag and permissions)**

*<?*xml version="1.0" encoding="utf-8"*?>*

<manifest xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) package="com.example.googlemap">

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

<uses-permission android:name="android.permission.ACCESS\_FINE\_LOCATION"/>

<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:supportsRtl="true" android:theme="@style/Theme.GoogleMap">

<meta-data

android:name="com.google.android.geo.API\_KEY" android:value="AIzaSyAqZIR66GxoqcpbMuba0XlqB\_fW1k5LfcQ" />

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</**activity**>

</**application**>

</**manifest**>

MainActivity.java

**package** com.example.drawroute;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.content.ActivityNotFoundException;

**import** android.content.Intent; **import** android.content.IntentFilter; **import** android.net.Uri;

**import** android.os.Bundle; **import** android.view.View; **import** android.widget.Button; **import** android.widget.EditText; **import** android.widget.Toast;

**public class** MainActivity **extends** AppCompatActivity { EditText **esource**,**edistination**;

Button **bdraw**;

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***); **esource**=findViewById(R.id.***source***); **edistination**=findViewById(R.id.***destination***); **bdraw**=findViewById(R.id.***Draw***);

**bdraw**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View v) {

String source=**esource**.getText().toString();

String destination=**edistination**.getText().toString();

**if**(source.equals(**""**)&&(destination.equals(**""**)))

{

Toast.*makeText*(getApplicationContext(),**"Enter Source and Destination"**,Toast.***LENGTH\_LONG***).show();

}

else

{

try {

Uri uri = Uri.*parse*([**"https://www.google.co.in/maps/dir/"**](http://www.google.co.in/maps/dir/)+ source +

**"/"** + destination)

Intent intent = **new** Intent(Intent.***ACTION\_VIEW***, uri); intent.setFlags(Intent.***FLAG\_ACTIVITY\_NEW\_TASK***);

startActivity(intent);

**catch**(ActivityNotFoundException anf)

{

Uri uri =

Uri.*parse*("https://play.google.com/store/apps/details?id=com.google.an droid.apps.maps");

Intent intent = **new** Intent(Intent.***ACTION\_VIEW***, uri);

intent.setFlags(Intent.***FLAG\_ACTIVITY\_NEW\_TASK***);

startActivity(intent);

}

}

}

});

}

}

