Department of Computer Engineering 01CE0513 – Programming for Android – Lab Manual

# **Experiment 7**

Aim: Develop a Torch Light android application using Broadcast Receiver.

### Code:

## Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    android:textAlignment="center">
    <EditText
        android:id="@+id/txtMsg"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginLeft="100dp"
        android:layout marginTop="180dp"
        android:ems="10" />
    <Button
        android:id="@+id/btnShow"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginLeft="\overline{1}30dp"
        android:onClick="onClickShowBroadcast"
        android:text="Show Broadcast" />
    <TextView
        android:id="@+id/textView2"
        android:layout width="match parent"
        android:layout height="66dp"
        android:layout marginTop="30dp"
        android:background="#40C4FF"
        android:text="AirPlane Mode On and off"
        android:textAlignment="center"
        android:textSize="34sp" />
</LinearLayout>
```

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## MainActivity.java:

```
package com.example.practical 7;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.content.IntentFilter;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    AirplaneModeChangeReceiver airplaneModeChangeReceiver = new
AirplaneModeChangeReceiver();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
    }
    @Override
    protected void onStart() {
        super.onStart();
        IntentFilter filter = new
IntentFilter (Intent. ACTION AIRPLANE MODE CHANGED);
        registerReceiver(airplaneModeChangeReceiver, filter);
    }
    @Override
    protected void onStop() {
        super.onStop();
        unregisterReceiver(airplaneModeChangeReceiver);
 public void onClickShowBroadcast(View view) {
        EditText st = (EditText) findViewById(R.id.txtMsg);
        Intent intent = new Intent();
        intent.putExtra("msg", (CharSequence) st.getText().toString();
        intent.setAction("com.tutlane.CUSTOM INTENT");
        sendBroadcast(intent);
    }
```

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## AirplaneModeChangeReceiver.java

```
package com.example.practical 7;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.provider.Settings;
import android.widget.Toast;
public class AirplaneModeChangeReceiver extends BroadcastReceiver {
    @Override
    public void onReceive(Context context, Intent intent) {
        if (isAirplaneModeOn(context.getApplicationContext())) {
            Toast.makeText(context, "AirPlane mode is on",
Toast.LENGTH SHORT).show();
        } else {
            Toast.makeText(context, "AirPlane mode is off",
Toast. LENGTH SHORT) . show();
    }
    private static boolean isAirplaneModeOn(Context context) {
        return Settings.System.getInt(context.getContentResolver(),
Settings.Global.AIRPLANE MODE ON, 0) != 0;
```

## MyBroadcastReceiver.java

```
package com.example.practical_7;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.widget.Toast;

/**
   * Created by Tutlane on 01-08-2017.
   */

public class MyBroadcastReceiver extends BroadcastReceiver {
    @Override
    public void onReceive(Context context, Intent intent) {
        CharSequence iData = intent.getCharSequenceExtra("msg");
        Toast.makeText(context, "Tutlane Received Message:
"+iData,Toast.LENGTH_LONG).show();
}
```

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}

## AndriodManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:tools="http://schemas.android.com/tools">
    <uses-permission</pre>
android:name="android.permission.YOUR PERMISSION" />
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data extraction rules"
        android:fullBackupContent="@xml/backup rules"
        android:icon="@mipmap/ic launcher"
        android:label="@string/app name"
        android:roundIcon="@mipmap/ic launcher round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Practical 7"
        tools:targetApi="31">
        <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>
<receiver android:name="MyBroadcastReceiver">
            <intent-filter>
                <action android:name="com.tutlane.CUSTOM INTENT">
                </action>
            </intent-filter>
        </receiver>
    </application>
</manifest>
```

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## **Screenshots:**

