# Lab Exercise 12: Broadcast sender and receiver

ActivityMain.java

package com.example.lab12;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.content.IntentFilter;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 IntentFilter intentFilter = new IntentFilter("Com.app.CUSTOM\_INTENT");  
 MyReceiver objReceiver = new MyReceiver();  
  
 registerReceiver(objReceiver, intentFilter);  
 }  
  
 public void showBroadcast(View view) {  
 EditText editText = (EditText) findViewById(R.id.*et*);  
 Intent intent = new Intent();  
 intent.putExtra("msg", editText.getText());  
 intent.setAction("Com.app.CUSTOM\_INTENT");  
 sendBroadcast(intent);  
 }  
}

strings.xml

<resources>  
 <string name="app\_name">Lab12</string>  
 <string name="message">Message:</string>  
 <string name="broadcast\_message">Broadcast Message</string>  
 <string name="send\_broadcast">Send Broadcast</string>  
</resources>

activity\_main.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<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"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/tv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="39dp"  
 android:layout\_marginTop="80dp"  
 android:text="@string/message"  
 android:textColor="@color/teal\_700"  
 android:textSize="20sp"  
 android:textStyle="bold" />  
  
 <EditText  
 android:id="@+id/et"  
 android:layout\_width="250dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="130dp"  
 android:layout\_marginTop="69dp"  
 android:gravity="center"  
 android:hint="@string/broadcast\_message"  
 android:importantForAutofill="no"  
 android:inputType="text"  
 android:minHeight="48dp"  
 android:textColorHint="#757575" />  
  
 <Button  
 android:id="@+id/bt"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="150dp"  
 android:onClick="showBroadcast"  
 android:text="@string/send\_broadcast" />  
</RelativeLayout>

MyReceiver.java

package com.example.lab12;  
  
import android.content.BroadcastReceiver;  
import android.content.Context;  
import android.content.Intent;  
import android.widget.Toast;  
  
public class MyReceiver extends BroadcastReceiver {  
 @Override  
 public void onReceive(Context context, Intent intent) {  
 CharSequence value = intent.getCharSequenceExtra("msg");  
 Toast.*makeText*(context, "Broadcast Received: " + value, Toast.*LENGTH\_LONG*).show();  
 }  
}

AndroidManifest.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.lab12">  
  
 <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.Lab12">  
 <receiver  
 android:name=".MyReceiver"  
 android:enabled="true"  
 android:exported="true"></receiver>  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 <action android:name="Com.app.CUSTOM\_INTENT" />  
 </intent-filter>  
 </activity>  
 </application>  
</manifest>

OUTPUT

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