

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




Message:

SEND BROADCAST



Message:

SEND BROADCAST

 Broadcast Received: Hello?

