**19. Develop a program to demonstrate any sample system or custom broadcast message.**

**XML Code**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center"  
 android:padding="20dp">  
  
 <TextView  
 android:id="@+id/txt1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Dynamic Battery Broadcast App"  
 android:textSize="24sp"  
 android:layout\_marginBottom="50sp"  
 android:gravity="center"  
 tools:ignore="HardcodedText" />  
  
 <TextView  
 android:id="@+id/txt"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Battery:"  
 android:textSize="24sp"  
 android:textColor="@android:color/holo\_blue\_dark"  
 android:gravity="center"  
 tools:ignore="HardcodedText" />  
</LinearLayout>

**MainActivity.java**

package com.example.dynamicboradcast;

import androidx.appcompat.app.AppCompatActivity;

import android.content.IntentFilter;

import android.os.Bundle;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

BatteryChange bc;

TextView tv;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

tv = findViewById(R.id.txt);

bc = new BatteryChange(tv);

IntentFilter infilter = new IntentFilter(Intent.ACTION\_BATTERY\_CHANGED);

registerReceiver(bc, infilter);

}

@Override

protected void onStop() {

super.onStop();

unregisterReceiver(bc);

}

}

**BatteryChange.java**

package com.example.dynamicboradcast;

import android.content.BroadcastReceiver;

import android.content.Context;

import android.content.Intent;

import android.os.BatteryManager;

import android.widget.TextView;

public class BatteryChange extends BroadcastReceiver {

TextView tv;

public BatteryChange(TextView tv) {

this.tv = tv;

}

@Override

public void onReceive(Context context, Intent intent) {

int percentage = intent.getIntExtra(BatteryManager.EXTRA\_LEVEL, -1);

if (percentage != -1) {

tv.setText("Battery: " + percentage + "%");

}

}

}