

JAVA Program:

```
package com.example.broadcast;

import androidx.appcompat.app.AppCompatActivity;

import android.content.BroadcastReceiver;
import android.content.Intent;
import android.content.IntentFilter;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    MyBroadcastReceiver myBroadcastReceiver;
    TextView tv;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=findViewById(R.id.tv);
        myBroadcastReceiver=new MyBroadcastReceiver(tv);
    }

    @Override
    protected void onStart(){
        registerReceiver(myBroadcastReceiver,new
IntentFilter(Intent.ACTION_BATTERY_CHANGED));
        super.onStart();
    }

    @Override
    protected void onStop(){
        unregisterReceiver(myBroadcastReceiver);
        super.onStop();
    }
}
```

```
package com.example.broadcast;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.os.BatteryManager;
import android.widget.TextView;

public class MyBroadcastReceiver extends BroadcastReceiver {
    TextView tv; public MyBroadcastReceiver(TextView tv){
        this.tv = tv;
    }

    @Override
    public void onReceive(Context context, Intent intent) {
        int percentage = intent.getIntExtra(BatteryManager.EXTRA_LEVEL,0);
        tv.setText("Battery Level:"+percentage);
    }
}
```

XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Broadcast"
        android:textAlignment="center"
        android:textSize="30sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.1"
        android:gravity="center_horizontal" />

    <TextView
        android:id="@+id/tv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Battery level"
        android:textAlignment="center"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.3"
        android:gravity="center_horizontal" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="259dp"
        android:layout_height="95dp"
        app:srcCompat="@drawable/battery"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.9" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT:

