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SECTION:5CSE-4

BATERY- CHARGER APPLICATION

1.main_Activity.xml:

```xml
<?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"
    android:background="@drawable/battery"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tv"
        android:layout_width="78dp"
        android:layout_height="39dp"
        android:text="Charge"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.132" />

    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyleHorizontal"
        android:layout_width="243dp"
        android:layout_height="73dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.855" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:backgroundTint="#FFC107"
        android:text="Button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.95"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.976" />

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

2.MainActivity.java:

```java
package com.example.batterychecking;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.content.IntentFilter;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ProgressBar;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView tv;
    Button button;
    ProgressBar progressBar;
    Battery BT;

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

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=findViewById(R.id.tv);
        button=findViewById(R.id.button);
        progressBar=findViewById(R.id.progressBar);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                BT=new Battery(tv,progressBar);
                registerReceiver(BT,new
IntentFilter(Intent.ACTION_BATTERY_CHANGED));
            }
        });
    }
}
```

3.Battery.java:

```java
package com.example.batterychecking;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.content.res.ColorStateList;
import android.graphics.Color;
import android.widget.ProgressBar;
import android.widget.TextView;

public class Battery extends BroadcastReceiver {
    TextView tv;
    ProgressBar prog;
    Battery(TextView textView,ProgressBar progressBar){
        tv=textView;
        prog=progressBar;
```

```java
    }
    @Override
    public void onReceive(Context context, Intent intent) {
        int per=intent.getIntExtra("level", 0);
        if(per>=50){
            tv.setText(per+"%");
            prog.setProgress(per);
            prog.setProgressTintList(ColorStateList.valueOf(Color.GREEN));
        }
        else if (per<50 && per>=20){
            tv.setText(per+"%");
            prog.setProgress(per);
            prog.setProgressTintList(ColorStateList.valueOf(Color.YELLOW));
        } else if (per<20 &&per>0) {
            tv.setText(per+"%");
            prog.setProgress(per);
            prog.setProgressTintList(ColorStateList.valueOf(Color.RED));
        }
    }
}
```

5.output: