|  |  |  |  |
| --- | --- | --- | --- |
| A picture containing drawing, stop, room  Description automatically generated | Mobile Programming  Practical #4 | | |
|  |  |  |  |
| **Name** |  | **Roll Number** |  |
| **Subject/Course:** | Mobile Programming | | |
| **Topic** | Battery Plugin | | |
|  | | | |
| Battery Plugin | | | |
| 1. Create an app to display whether battery is charging or discharging. | | | |
| *<?***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:id="@+id/textView"**  **android:layout\_width="wrap\_content"**  **android:layout\_height="wrap\_content"**  **android:text=""**  **app:layout\_constraintBottom\_toBottomOf="parent"**  **app:layout\_constraintEnd\_toEndOf="parent"**  **app:layout\_constraintStart\_toStartOf="parent"**  **app:layout\_constraintTop\_toTopOf="parent"** />    </**androidx.constraintlayout.widget.ConstraintLayout**>    **package** com.example.batterysweety    import android.content.Intent  import android.content.IntentFilter  import android.os.BatteryManager  import androidx.appcompat.app.AppCompatActivity  import android.os.Bundle  import android.widget.TextView    class MainActivity : AppCompatActivity() {  **override fun** onCreate(savedInstanceState: Bundle?) {  **super**.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)  **val** t=findViewById<TextView>(R.id.*textView*) **as** TextView  **val** iFilter:IntentFilter=IntentFilter(Intent.*ACTION\_BATTERY\_CHANGED*)  **val** bs: Intent?= **this**.registerReceiver(**null**,iFilter)  **val** status:Int=bs?.getIntExtra(BatteryManager.*EXTRA\_STATUS*,-1)?:-1  **val** isCharging:Boolean=status== BatteryManager.*BATTERY\_STATUS\_CHARGING* ||  status==BatteryManager.*BATTERY\_STATUS\_FULL*  **if**(isCharging)  {  t.*text*=**"Charging"** }  **else** {  t.*text*=**"Discharging"** }  }  } | | | |
|  | | | |

|  |
| --- |
| Battery Plugin |
| 1. Create an app to display the battery level. |
| *<?***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:id="@+id/textView"**  **android:layout\_width="wrap\_content"**  **android:layout\_height="wrap\_content"**  **android:text=""**  **app:layout\_constraintBottom\_toBottomOf="parent"**  **app:layout\_constraintEnd\_toEndOf="parent"**  **app:layout\_constraintStart\_toStartOf="parent"**  **app:layout\_constraintTop\_toTopOf="parent"** />    </**androidx.constraintlayout.widget.ConstraintLayout**>      **package** com.example.batterysweety    import android.content.Intent  import android.content.IntentFilter  import android.os.BatteryManager  import androidx.appcompat.app.AppCompatActivity  import android.os.Bundle  import android.widget.TextView    class MainActivity : AppCompatActivity() {  **override fun** onCreate(savedInstanceState: Bundle?) {  **super**.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)  **val** t=findViewById<TextView>(R.id.*textView*) **as** TextView  **val** iFilter:IntentFilter=IntentFilter(Intent.*ACTION\_BATTERY\_CHANGED*)  **val** bs: Intent?= **this**.registerReceiver(**null**,iFilter)  **val** status:Int=bs?.getIntExtra(BatteryManager.*EXTRA\_STATUS*,-1)?:-1  **val** isCharging:Boolean=status== BatteryManager.*BATTERY\_STATUS\_CHARGING* ||  status==BatteryManager.*BATTERY\_STATUS\_FULL* **val** level:Int=bs?.getIntExtra(BatteryManager.*EXTRA\_LEVEL*,-1)?:-1  **val** scale:Int=bs?.getIntExtra(BatteryManager.*EXTRA\_SCALE*,-1)?:-1  **val** batteryLevel:Int=(((level.toFloat())/(scale.toFloat()))\*100.0f).toInt()    **if**(isCharging)  {  t.*text*=**"Charging $**batteryLevel**"** }  **else** {  t.*text*=**"Discharging $**batteryLevel**"** }  }  } |