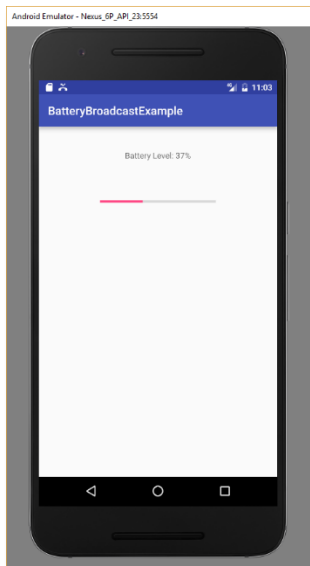




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Worksheet 3 – BroadcastReceiver - Battery



You will be creating an application with 1 activity containing a Progress Bar. The progress bar should display the battery status at that moment. (as per image on the left)

N.B. run the application on an emulator so that you can change the battery charge percentage and see the updated progress bar

1. Create a new Application called BatteryBroadcastExample
2. Insert a TextView and a ProgressBar (as per the example above) in the MainActivity
3. Paste the following code in the MainActivity

```
//Create Broadcast Receiver Object along with class definition
private BroadcastReceiver mBatInfoReceiver = new BroadcastReceiver() {
    @Override
    //When Event is published, onReceive method is called
    public void onReceive(Context c, Intent i) {
        //Get Battery %
        int level = i.getIntExtra("level", 0);
        //Find the progressbar creating in main.xml
        ProgressBar pb = (ProgressBar) findViewById(R.id.progressbar);
        //Set progress level with battery % value
        pb.setProgress(level);
        //Find textview control created in main.xml
        TextView tv = (TextView) findViewById(R.id.textfield);
        //Set TextView with text
        tv.setText("Battery Level: " + Integer.toString(level) + "%");
    }
};
```

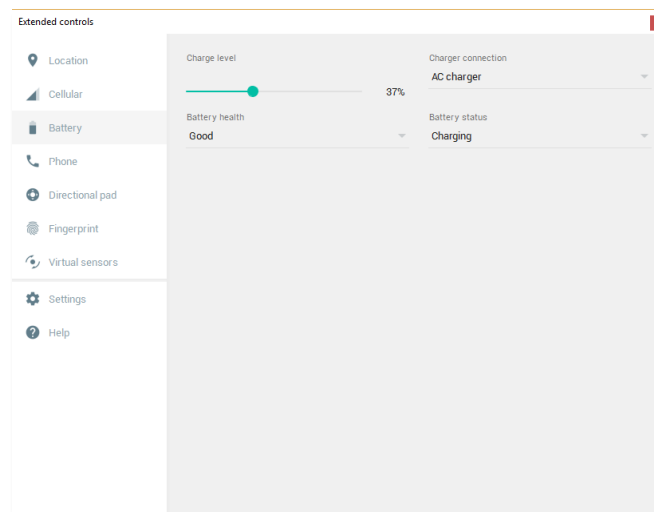


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4. Register the BroadcastReceiver in the `onCreate()` method

```
registerReceiver(mBatInfoReceiver, new IntentFilter(  
    Intent.ACTION_BATTERY_CHANGED));
```

5. From the Extended Controls of the emulator change the Charge level



Challenge:

Add a TextView to the MainActivity which should display charging if the device is charging. Make the necessary changes to the BroadcastReceiver

N.B. Use the Extended controls (step 5) to change the Battery Status