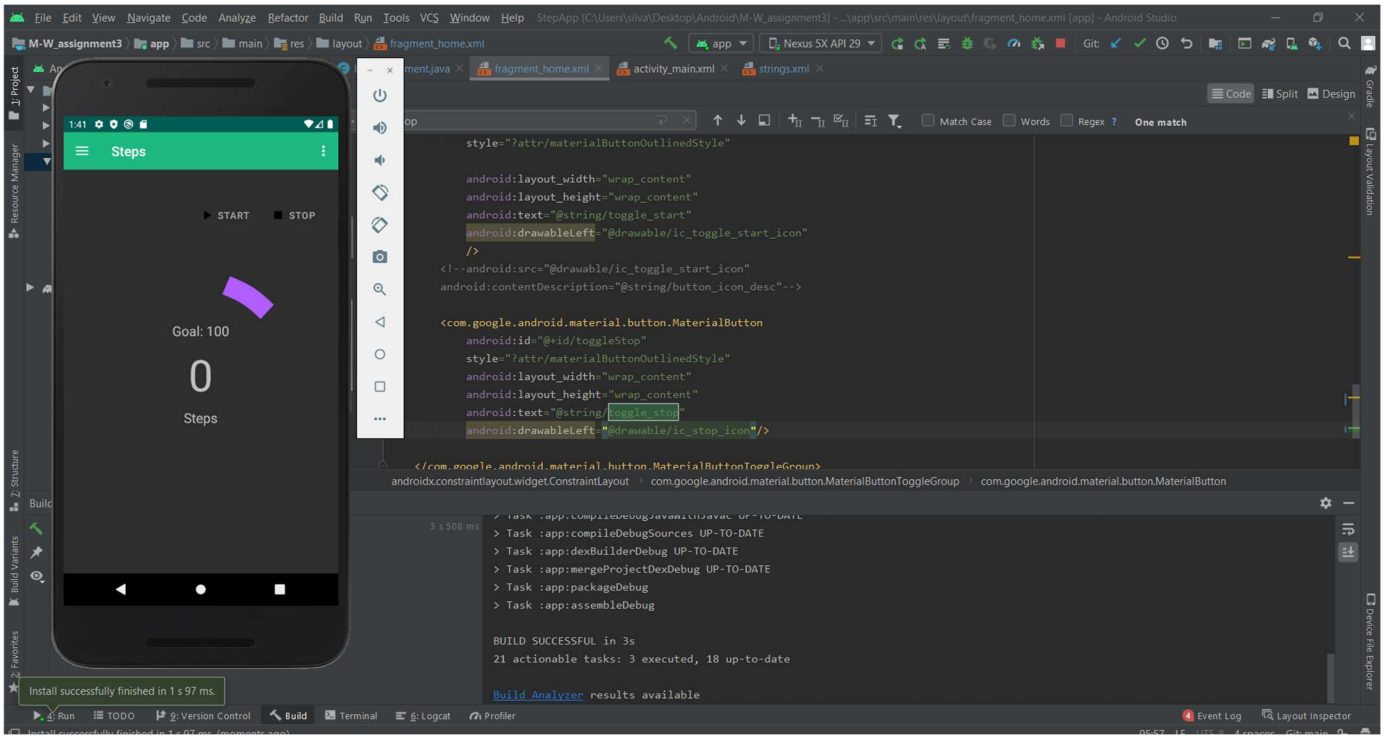
Assignment01 Mobile&Wearable computing

Edoardo _ Silva _Assignment01

https://github.com/NanolathingStuff/M-W_assignment3.git

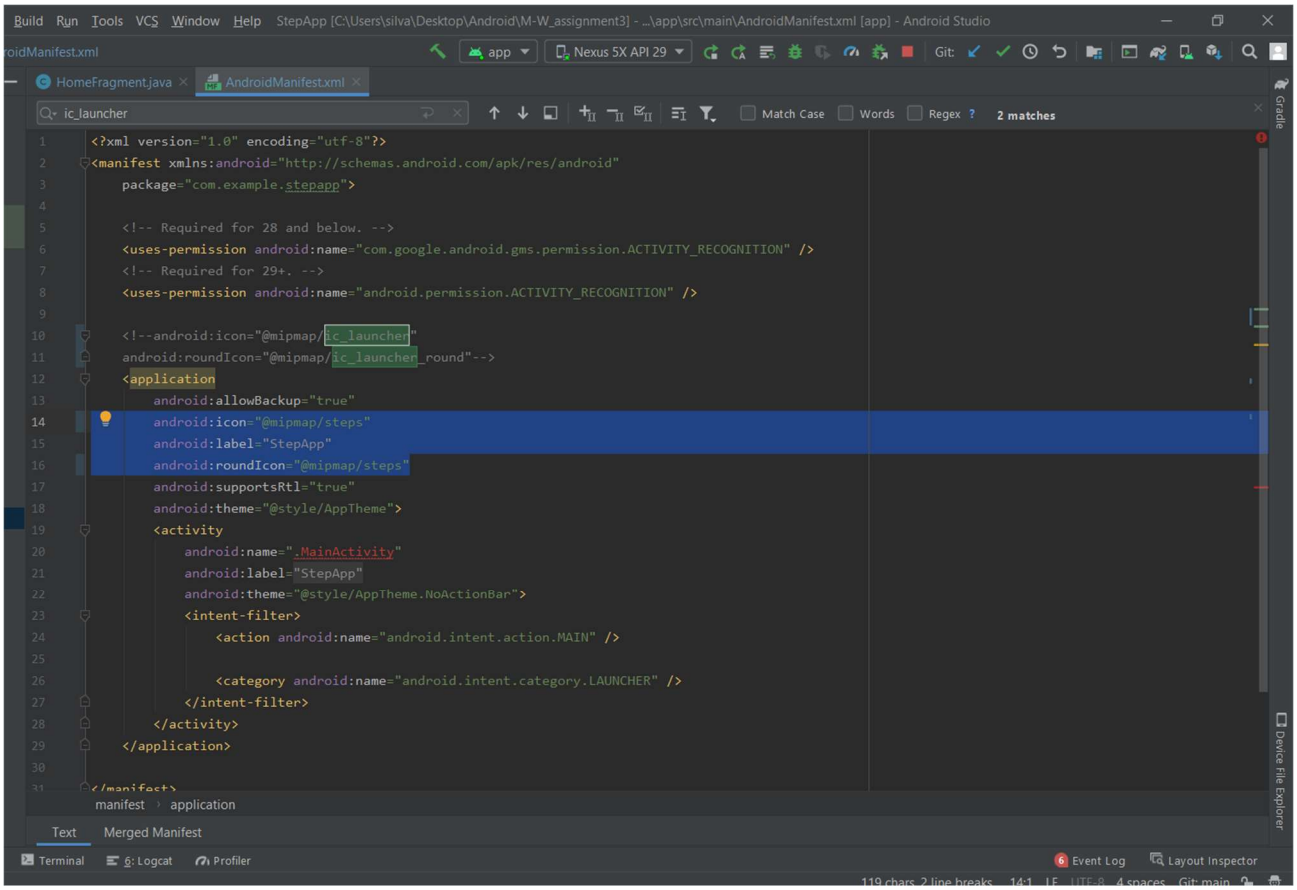
gh repo clone NanolathingStuff/M-W_assignment3

Added icons left to buttons in fragment_home.xml




```
...
android:drawableLeft="@drawable/ic_toggle_start_icon"
...
android:drawableLeft="@drawable/ic_stop_icon"/>
...
```

Changed App icon in manifest.cml

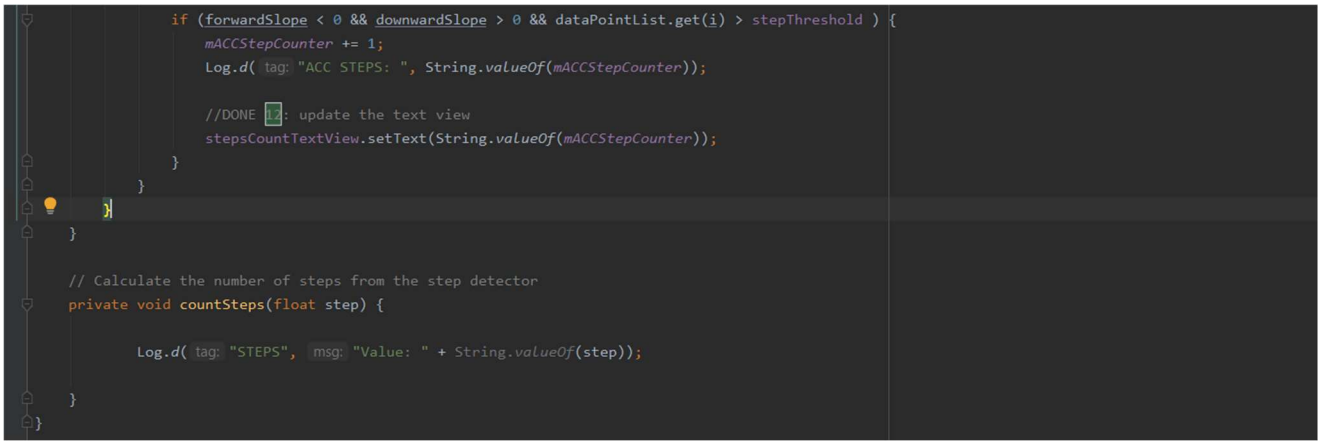



```
...
android:icon="@mipmap/steps"
android:label="@string/app_name"
android:roundIcon="@mipmap/steps"
...
```

countSteps() that counts the number of steps from the Android STEP_DETECTOR

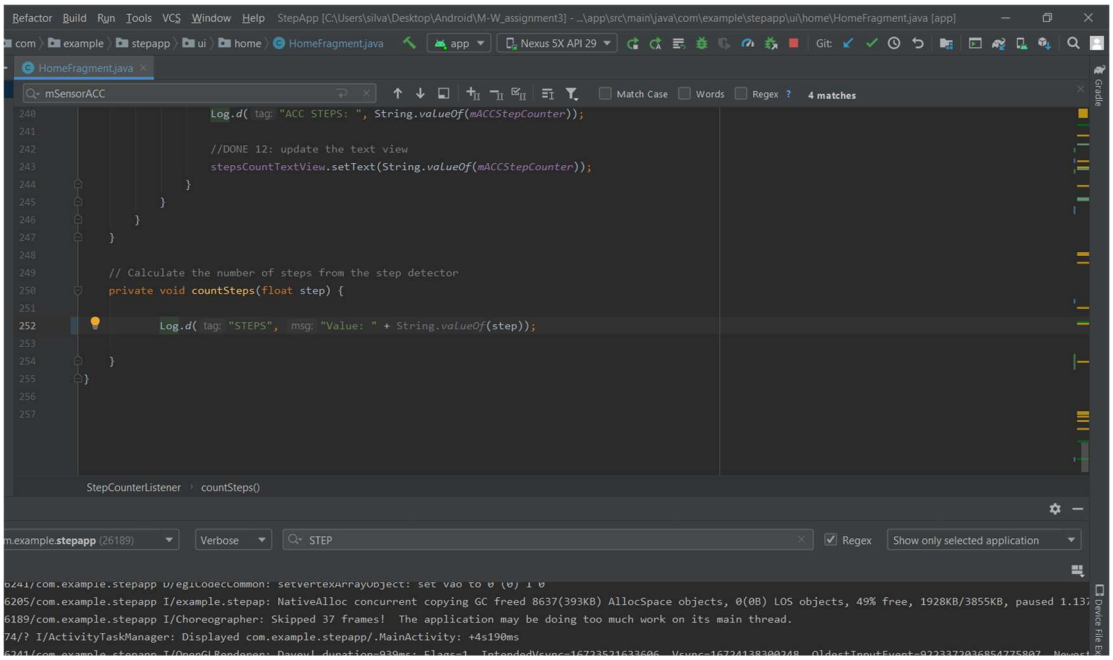
```
    // Android step detector
    int mAndroidStepCount = 0;

    // TextView
    TextView stepsCountTextView;

    //DONE 10
    public StepCounterListener(TextView tv) { stepsCountTextView = tv; }
```

```
// instance of the sensor manager for the step detector

// DONE 11
// instantiate the StepCounterListener
//listener = new StepCounterListener();
listener = new StepCounterListener(stepsCountTextView);

// Toggle group button
```

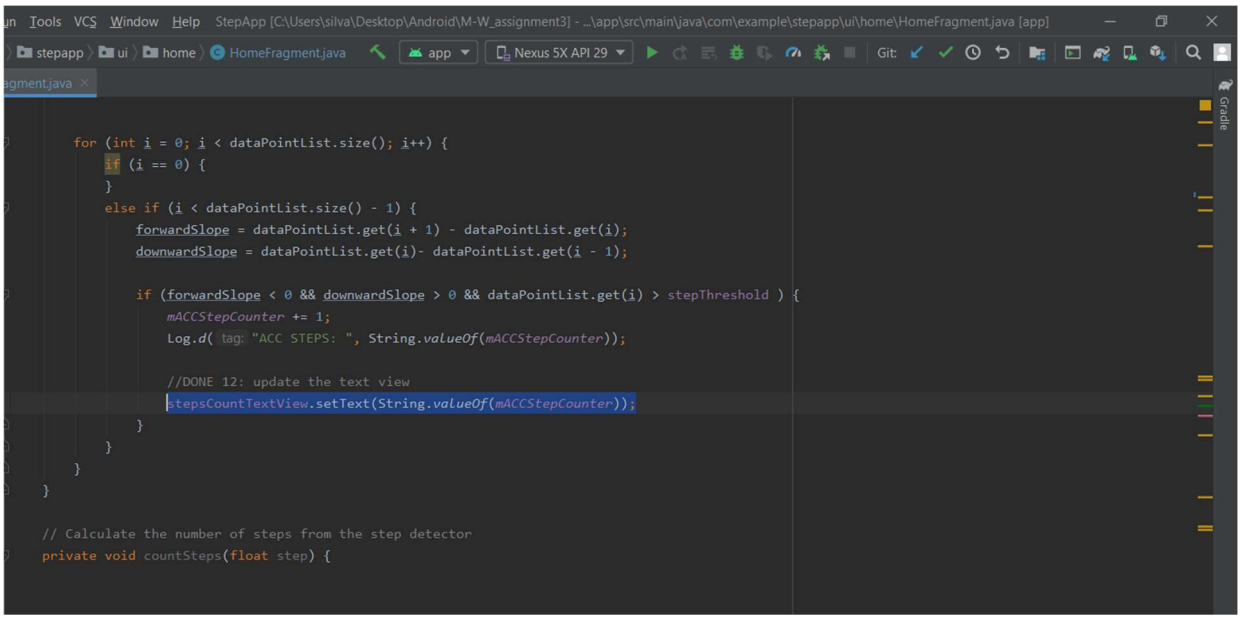


```
            if (forwardSlope < 0 && downwardSlope > 0 && dataPointList.get(i) > stepThreshold ) {
                mACCStepCounter += 1;
                Log.d( tag: "ACC STEPS: ", String.valueOf(mACCStepCounter));

                //DONE 12: update the text view
                stepsCountTextView.setText(String.valueOf(mACCStepCounter));
            }
        }
    }
}

// Calculate the number of steps from the step detector
private void countSteps(float step) {

        Log.d( tag: "STEPS",  msg: "Value: " + String.valueOf(step));

}
}
```

```
// TextView
TextView stepsCountTextView;

//DONE 10
public StepCounterListener(TextView tv){
    stepsCountTextView = tv;
}
.....

listener = new StepCounterListener(stepsCountTextView);

...

// case Step detector
case Sensor.TYPE_STEP_DETECTOR:

        countSteps(steps);


private void countSteps(float step) {

        Log.d("STEPS", "Value: " + String.valueOf(step));

}

for (int i = 0; i < dataPointList.size(); i++) {
    if (i == 0) {
    }
    else if (i < dataPointList.size() - 1) {
        forwardSlope = dataPointList.get(i + 1) - dataPointList.get(i);
        downwardSlope = dataPointList.get(i)- dataPointList.get(i - 1);

        if (forwardSlope < 0 && downwardSlope > 0 && dataPointList.get(i) >
stepThreshold ) {
            mACCStepCounter += 1;
            Log.d("ACC STEPS: ", String.valueOf(mACCStepCounter));
```

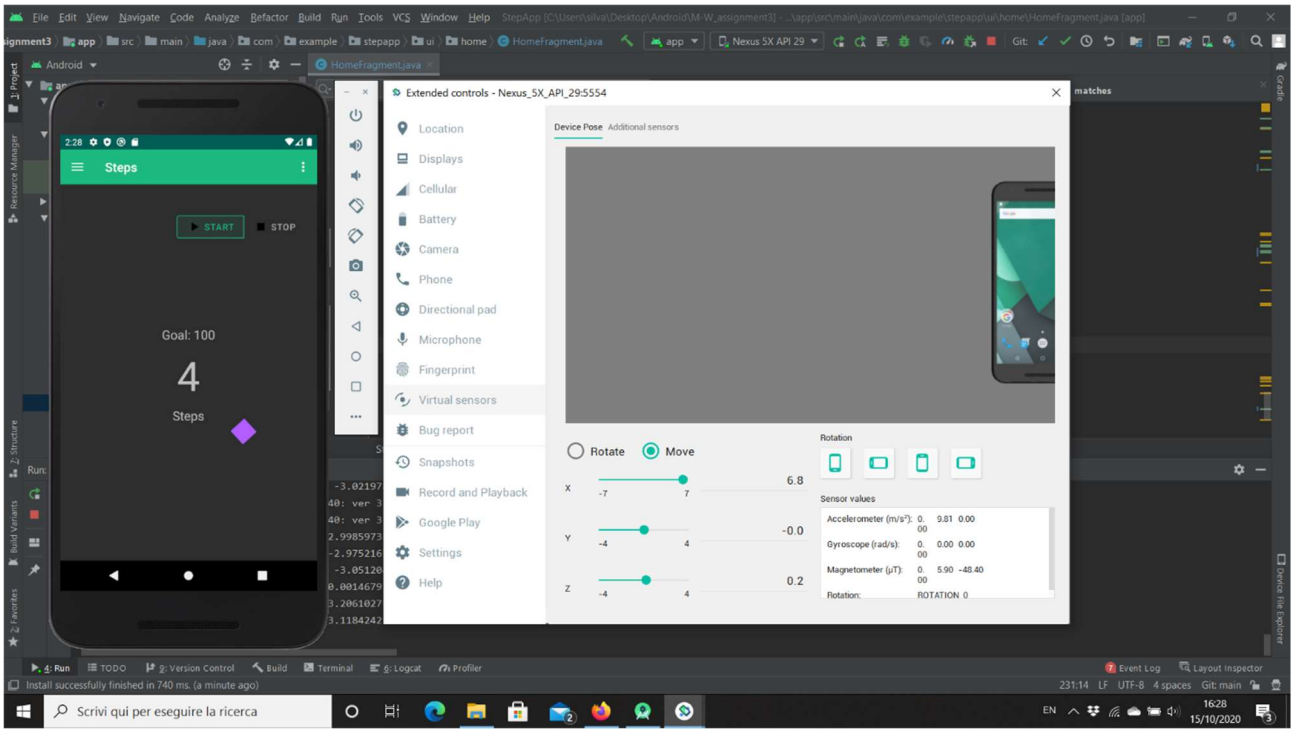


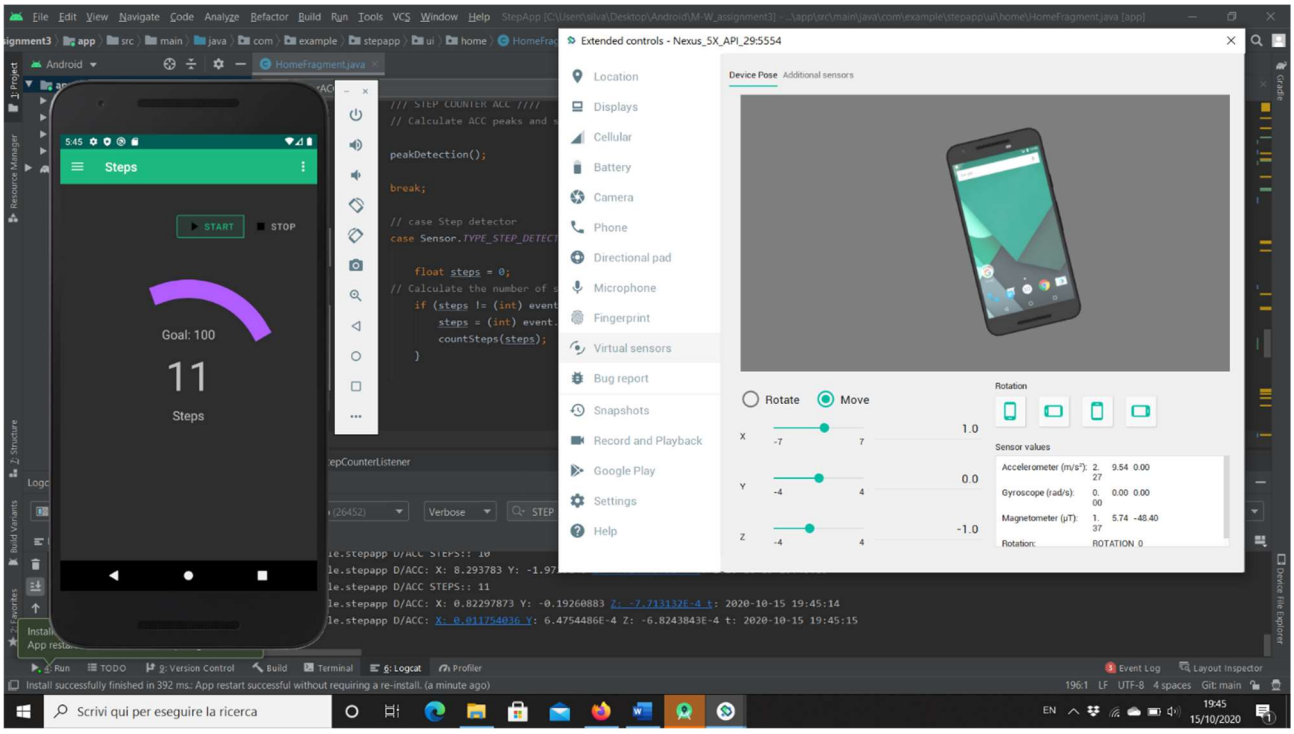
Update the Circular Progress Bar with the number of steps




```
stepsCountTextView.setText(String.valueOf(mACCStepCounter));
```

Proof it’s working


Steps
START
STOP
Goal: 100
4
Steps
Extended controls - Nexus_5X_API_29:5554
Location
Displays
Cellular
Battery
Camera
Phone
Directional pad
Microphone
Fingerprint
Virtual sensors
Bug report
Snapshots
Record and Playback
Google Play
Settings
Help
Device Pose
Additional sensors
Rotate
Move
Rotation
Sensor values
6.8
-0.0
0.2


Steps
START
STOP
Goal: 100
11
Steps
Extended controls - Nexus_5X_API_29:5554
Location
Displays
Cellular
Battery
Camera
Phone
Directional pad
Microphone
Fingerprint
Virtual sensors
Bug report
Snapshots
Record and Playback
Google Play
Settings
Help
Device Pose
Additional sensors
Rotate
Move
Rotation
Sensor values
1.0
0.0
-1.0