## **Assignment Report**

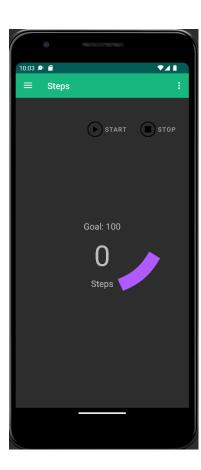
Assignment 01 Giorgio Cesano

URL: <a href="https://github.com/Gioce/Mobile-Wearable-Computing">https://github.com/Gioce/Mobile-Wearable-Computing</a>

## **StepApp**







### StepApp Home Icon Code



#### StepApp Menu Icon Code

```
■ Code ■ Split ■ Design
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A 2 🗸 1 🔥 🦠
                                                                                                                                                                                                       <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
     > 🗖 com.example.stepapp (a
                                                                                                                                                                                                                            android:layout_width="match_parent'
                                                                                                                                                                                                                            android:background="@drawable/side_nav_bar"
■ res
                                                                                                                                                                                                                            android:gravity="bottom"

✓ Image: Value of the description of the descr
                               # circle.xml
                                                                                                                                                                                                                            android:paddingLeft="16dp"
                                                                                                                                                                                                                            android:paddingTop="16dp'
                               alic_menu_bar_chart.xi 1
                                                                                                                                                                                                                            android:paddingRight="16dp"
                                                                                                                                                                                                                            android:theme="@style/ThemeOverlay.AppCompat.Dark">
                               a ic_menu_slideshow.xı
                               ic_menu_step.xml
                                                                                                                                                       16 🔼
                               side_nav_bar.xml
                               stop_buttom.xml
                                                                                                                                                                                                                                                   android:contentDescription="Navigation header"
                                                                                                                                                                                                                                                   android:paddingTop="8dp"
                                                                                                                                                                                                                                                   app:srcCompat="@drawable/sneaker_shoes_svgrepo_com" />
                             activity_main_drawer. 22
                                                                                                                                                                                                                            <TextView
                                            description = 1 description =
                                                                                                                                                                                                                                                   android:paddingTop="8dp"
                                              ic_launcher.png (x 27
                                                                                                                                                                                                                                                   android:textAppearance="@style/TextAppearance.AppCompat.Body1" />
                                                                                                                                                                                                                            <TextView
     res (generated)
                                                                                                                                                                                                       </LinearLavout>
```

### StepApp Play and Stop Button Icons

```
android:progressDrawable="@drawable/circle"/>
                                                                                                                        A3 %2 ∧
  > com.example.stepapp
                                        <com.google.android.material.button.MaterialButtonToggleGroup</pre>
                                            android:layout_height="wrap_content'
 res
                                            android:layout_marginTop="44dp
       acircle.xml
       alic_launcher_backgrou
                                            app:layout_constraintStart_toStartOf="parent"
                                            app:layout_constraintTop_toTopOf="parent">
                                            <com.google.android.material.button.MaterialButton</pre>
       aplay_buttom.xml
                                                android:layout_width="match_parent'
                                                android:drawableLeft="@drawable/play_buttom"
  > 🖿 menu
                                            <com.google.android.material.button.MaterialButton</pre>
       mobile_navigation.xm
  > 🖿 values
≈ build.gradle (Module: Step ≠ 91 🔳
                                                android:drawableLeft="@drawable/stop_buttom"
  gradle-wrapper.properties 92
  proguard-rules.pro (ProGua
  掮 gradle.properties (Project F
                                        </com.google.android.material.button.MaterialButtonToggleGroup>
  捐 local.properties (SDK Lo
                                    </androidx.constraintlayout.widget.ConstraintLayout>
```

# StepApp countSteps() function



# StepApp countSteps() function code

```
// Calculate the number of steps from the step detector
private void countSteps(float step) {
   int mstepCount = (int) step;

Log.d( tag: "NUM STEPS ANDROID", msg: "Num.steps: " + String.valueOf(mstepCount));
}
```

#### StepApp Circular Progress Bar with the number of steps

```
A 18 % 2
public View onCreateView(@NonNull LayoutInflater inflater,
                        ViewGroup container, Bundle savedInstanceState) {
   View root = inflater.inflate(R.layout.fragment_home, container, attachToRoot: false);
   stepsCountTextView = (TextView) root.findViewById(R.id.stepsCount);
   mSensorManager = (SensorManager) getActivity().getSystemService(getContext().SENSOR_SERVICE);
   mSensorACC = mSensorManager.getDefaultSensor(Sensor.TYPE_LINEAR_ACCELERATION);
   // instance of the sensor manager for the step detector
   mSensorStepDetector = mSensorManager.getDefaultSensor(Sensor.TYPE_STEP_DETECTOR);
   // TODO 11
   listener = new StepCounterListener(stepsCountTextView);
   materialButtonToggleGroup = (MaterialButtonToggleGroup) root.findViewById(R.id.toggleButtonGroup);
   materialButtonToggleGroup.addOnButtonCheckedListener(new MaterialButtonToggleGroup.OnButtonCheckedListener() {
       public void onButtonChecked(MaterialButtonToggleGroup group, int checkedId, boolean isChecked) {
            if (group.getCheckedButtonId() == R.id.toggleStart) {
               Toast.makeText(getContext(), text: "START", Toast.LENGTH_SHORT).show();
               // TODO 3: Check if the Accelerometer sensor exists
               if (mSensorACC != null) {
                   // Register the ACC listener
                   mSensorManager.registerListener(listener, mSensorACC, SensorManager.SENSOR_DELAY_NORMAL);
                   Toast.makeText(getContext(), "ACC not available", Toast.LENGTH_SHORT).show();
```