**[Homework#14](https://bb-csuohio.blackboard.com/webapps/assignment/uploadAssignment?content_id=_6362382_1&course_id=_168060_1&group_id=&mode=view)**

Build the pedometer app using the step detector sensor

Solution:

Code display step count:

<TextView  
 android:id="@+id/stepssincereboot"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World!"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />

Code to store and display steps through out the day in list view:

<ListView  
 android:id="@+id/steps\_list"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="0dip"  
 android:layout\_weight="1"  
 android:cacheColorHint="@android:color/transparent"  
 android:dividerHeight=".5dip" />

Java code to count and display steps number:

public class StepCounterActivity extends AppCompatActivity implements SensorEventListener {  
 private SensorManager mSensorManager;  
 private Sensor mSensor;  
 private boolean isSensorPresent;  
 private TextView mStepsSinceReboot;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*stepcounter\_layout*);  
  
 mStepsSinceReboot = (TextView) findViewById(R.id.*stepssincereboot*);  
 mSensorManager = (SensorManager) this.getSystemService(Context.*SENSOR\_SERVICE*);  
 if (mSensorManager.getDefaultSensor(Sensor.*TYPE\_STEP\_COUNTER*) != null) {  
 mSensor = mSensorManager.getDefaultSensor(Sensor.*TYPE\_STEP\_COUNTER*);  
 isSensorPresent = true;  
 } else {  
 isSensorPresent = false;  
 }  
 }  
  
 @Override  
 protected void onResume() {  
 super.onResume();  
 if (isSensorPresent) {  
 mSensorManager.registerListener(this, mSensor, SensorManager.*SENSOR\_DELAY\_NORMAL*);  
 }  
 }  
  
 @Override  
 protected void onPause() {  
 super.onPause();  
 if (isSensorPresent) {  
 mSensorManager.unregisterListener(this);  
 }  
 }  
  
 @Override  
 public void onSensorChanged(SensorEvent event) {  
 mStepsSinceReboot.setText("Steps since reboot:" + String.*valueOf*(event.values[0]));  
 }  
  
 @Override  
 public void onAccuracyChanged(Sensor sensor, int i) {  
  
 }  
}

Screenshots:

A white background with black dots

Description automatically generated A number on a white background

Description automatically generated