



Mobile App Development 2

Study diary

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SISÄLLYS

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# Week exercises

## Android BMI App

Copy/paste your relevant source, screenshots etc. here.

Source: <https://github.com/evvic/mobile_app_development/tree/main/BMI_app>

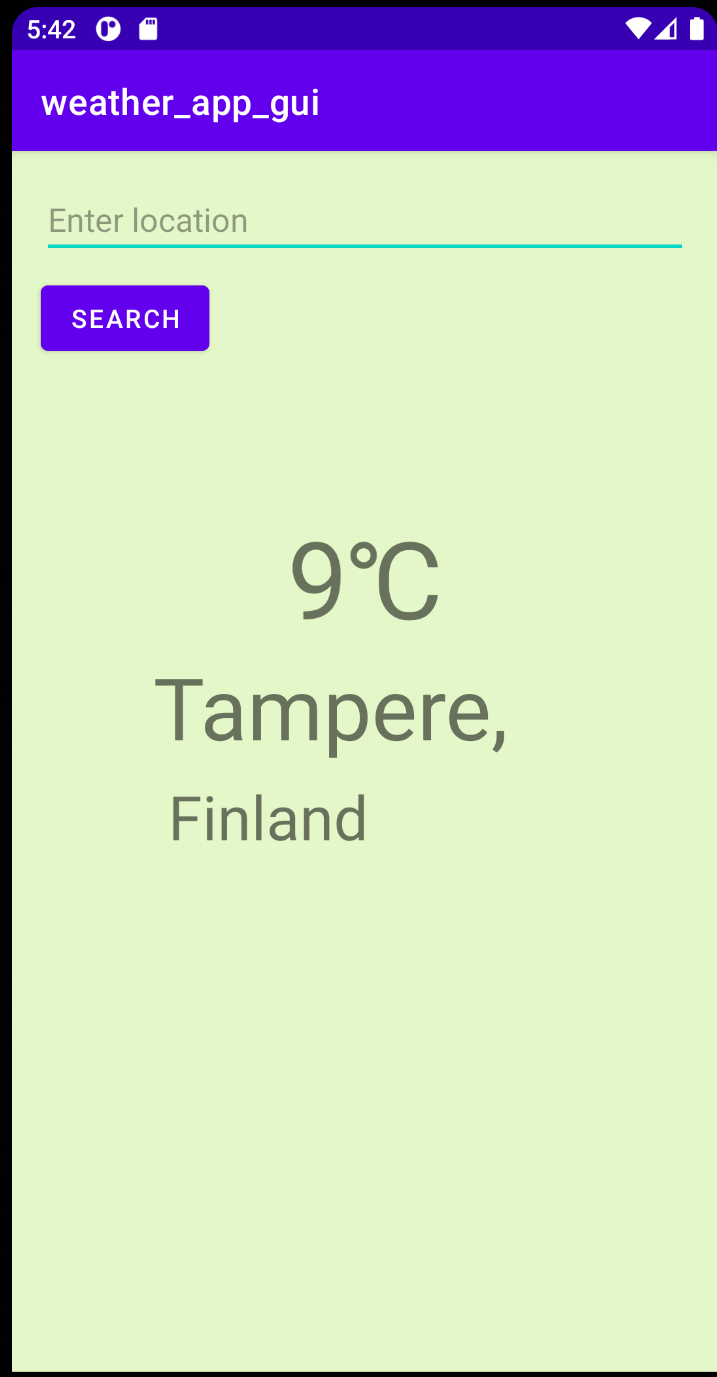
I followed along in class when designing this app. My app looks the exact same as the professors, where when the button is pressed, the BMI is calculated and displayed above the button, near the bottom of the screen.



## Android Weather App GUI

Copy/paste your source, screenshots etc. here

Source:<https://github.com/evvic/mobile_app_development/tree/main/weather_app_gui>

I created the weather GUI design thinking about how a typical weather app may look. Usually very simple and clean, depending on the informatics needed. Basically it could use the user’s location to determine the location and temperature, or the user can enter a location and the app would show the current temperature of that given location.

XML code for project:

<?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" android:background="#AED6F3AE" tools:context=".MainActivity"> <Button android:id="@+id/button" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp" android:layout\_marginTop="8dp" android:text="Search" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/searcch" /> <TextView android:id="@+id/locationCity" android:layout\_width="236dp" android:layout\_height="70dp" android:layout\_marginStart="87dp" android:layout\_marginEnd="87dp" android:text="Tampere," android:textSize="48sp" app:layout\_constraintBottom\_toTopOf="@+id/country" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" /> <TextView android:id="@+id/country" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginStart="87dp" android:layout\_marginBottom="286dp" android:text="Finland" android:textSize="34sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintStart\_toStartOf="parent" /> <TextView android:id="@+id/temperature" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginStart="162dp" android:layout\_marginEnd="162dp" android:text="9℃" android:textSize="60sp" app:layout\_constraintBottom\_toTopOf="@+id/locationCity" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" /> <EditText android:id="@+id/searcch" android:layout\_width="0dp" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp" android:layout\_marginTop="16dp" android:layout\_marginEnd="16dp" android:ems="10" android:hint="Enter location" android:inputType="textPersonName" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" /></androidx.constraintlayout.widget.ConstraintLayout>

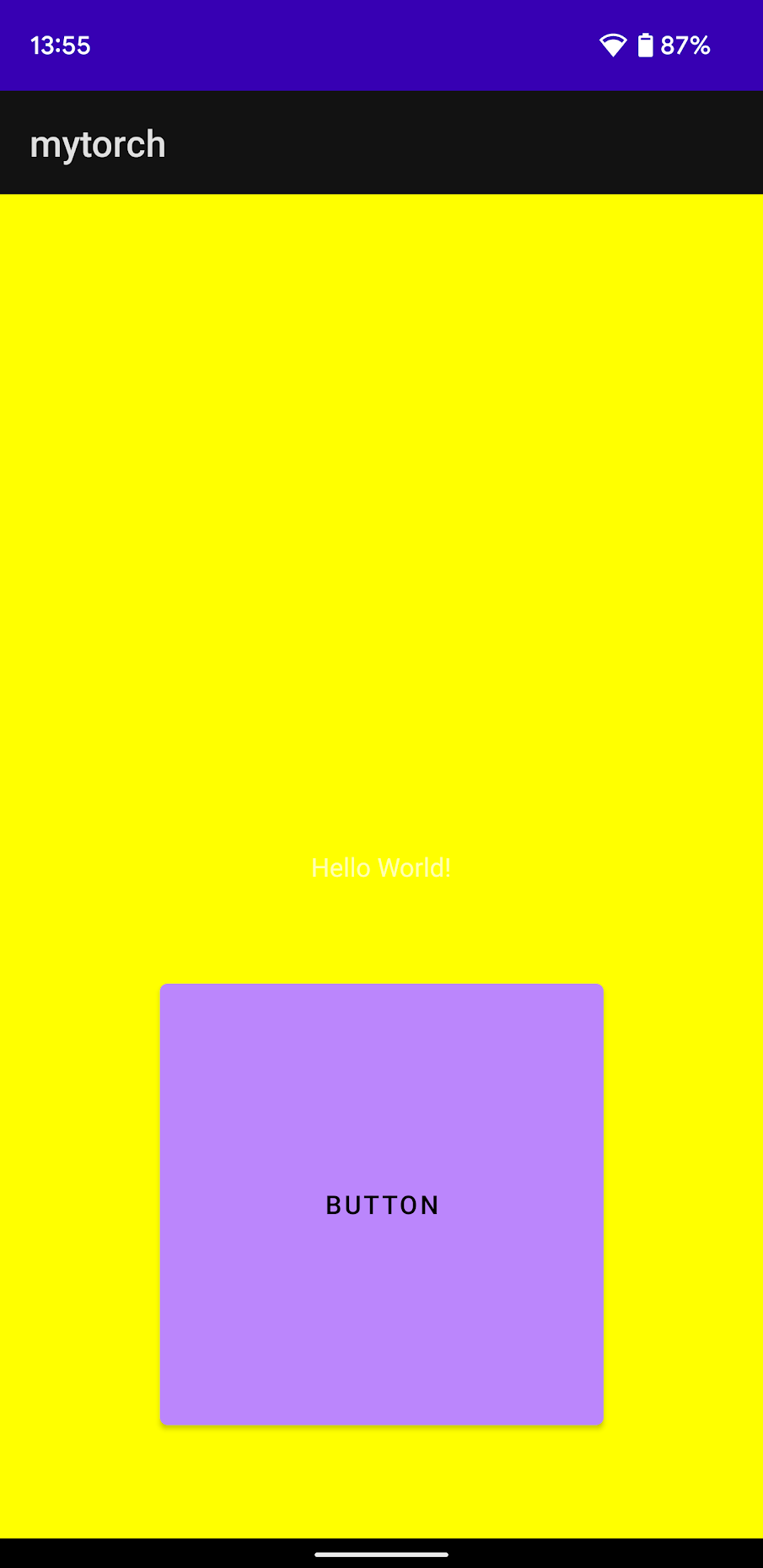
My Gradle wasn’t building correctly so I had to add these extra lines to my build.gradle(:app): https://stackoverflow.com/a/69043734

# Week excercises

**2.1: Synchronous API call example - Camera HW API - "Flashlight APP"**

Source: https://github.com/evvic/mobile\_app\_development/tree/main/mytorch

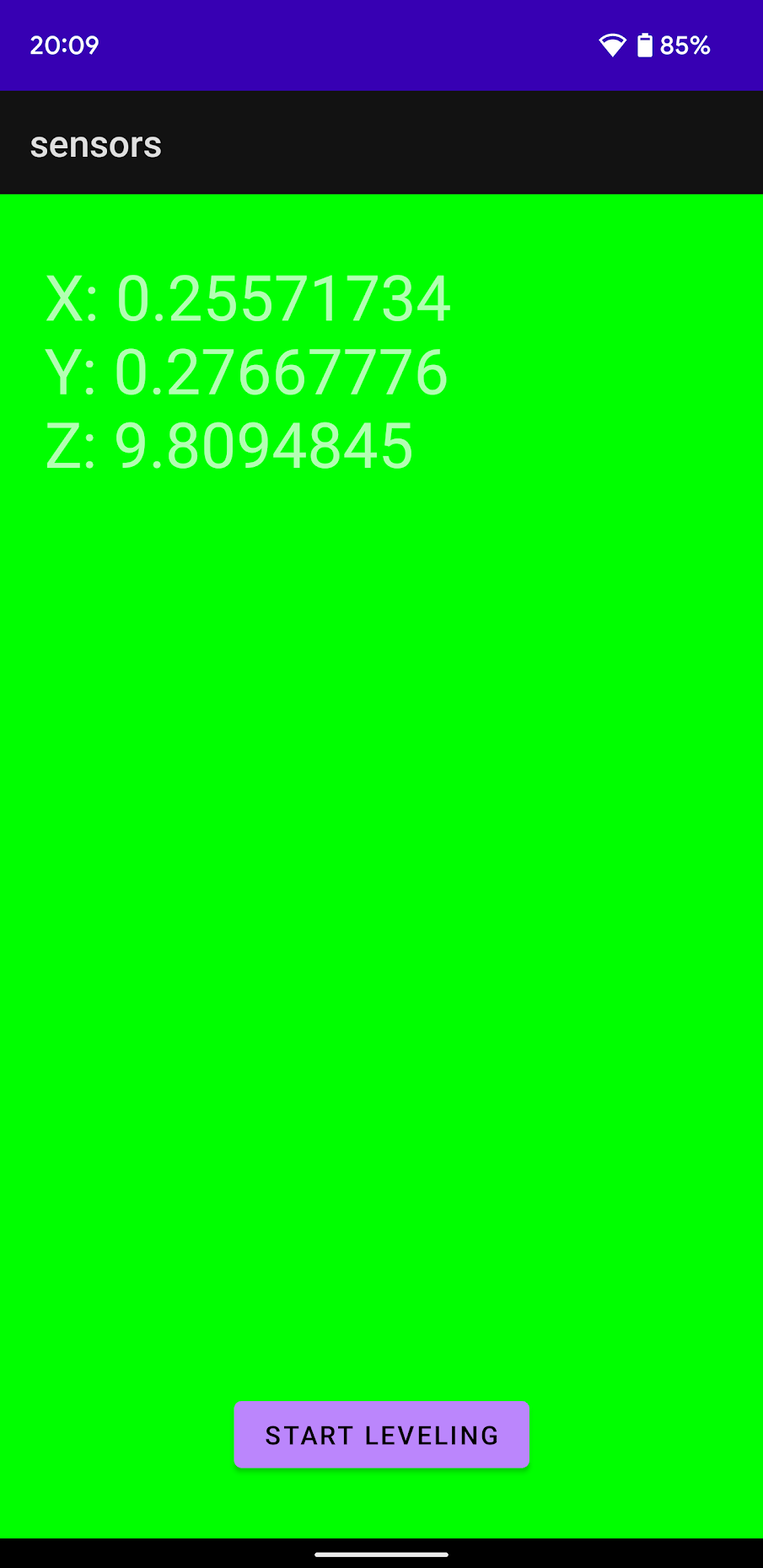
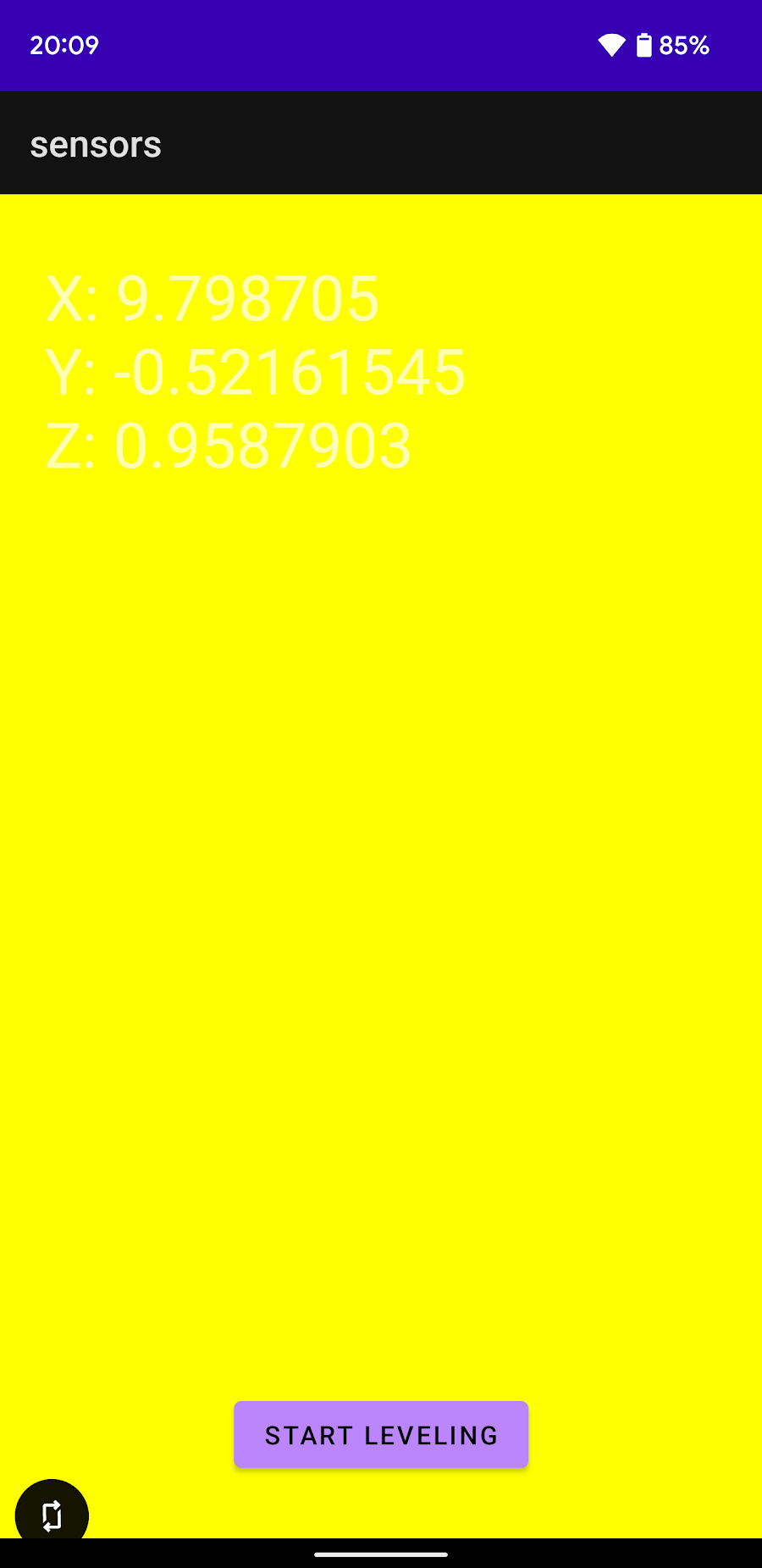
I created a button that toggles the flashlight attached to my back camera to turn on and off. Also when the light is off, the background is black, but when the light is turned on, the background turns yellow.

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# **2.2: Asynchronous API call example (listener) - Sensor API and "Level APP"**

Source: https://github.com/evvic/mobile\_app\_development/tree/main/sensors

This app uses a listener of the accelerometer to update whenever the phones axis’ change. When the X-axis nears 10, basically the phone is horizontal, the background changes from the default blue to yellow. Then, if the phone is flat on a desk, the x-axis and y-axis are near zero, the background turns green.



# Week exercises

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# Final project (not mandatory but required for best grades)

Sources used with exercises

List here the possible sources you’ve used with exercises (e.g. stackoverflow, tutorialspoint, github etc.)