

Mobile App Development

Tutorial Assignment

Exercise 1 (File I/O)

Write a Java program that reads from two input files `desiredsignal.txt` and `measuredsignal.txt`, which are desired and measured values of a sensor. Please write a Java code to write these files onto the smartphone storage. Compute the error of each measurement, which is the absolute value of the difference between desired and measured value, and display them on the screen. The absolute value can be obtained by using the `Math.abs()` function.

Example:

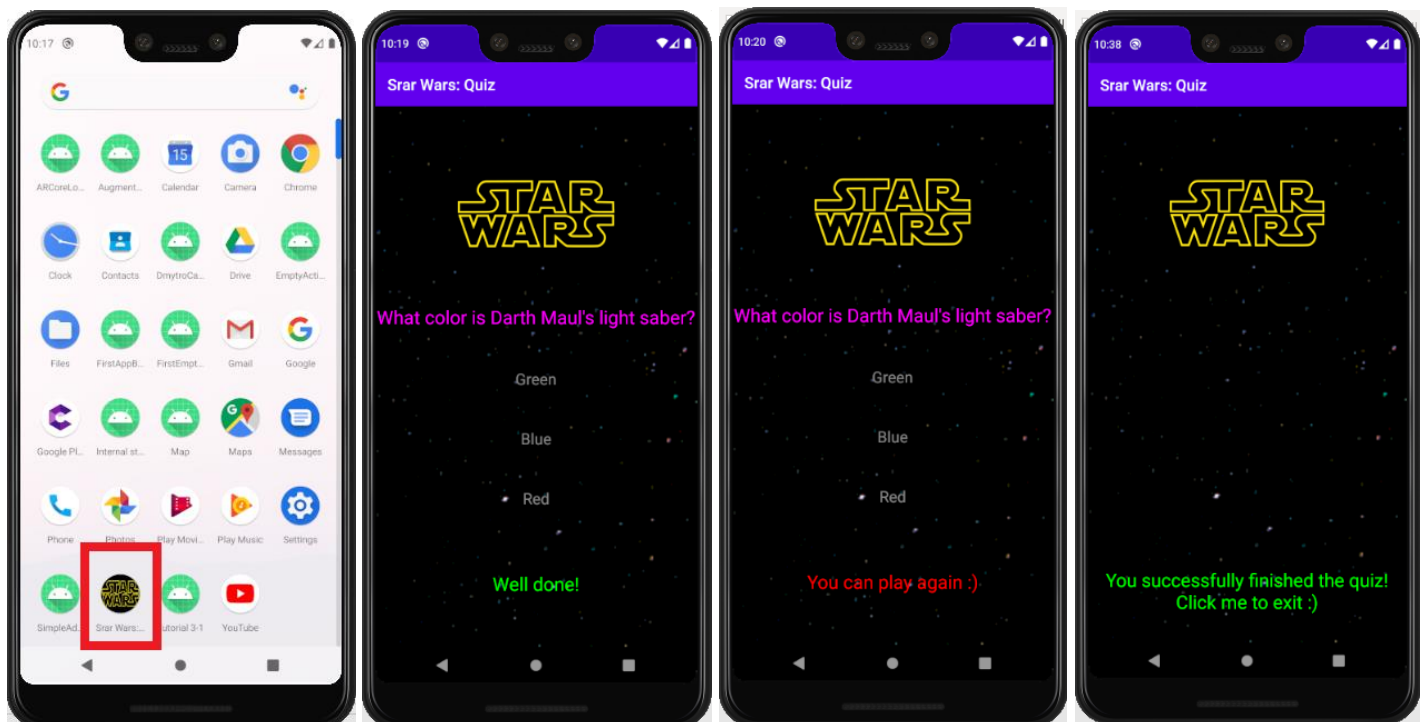
desiredsignal.txt	measuredsignal.txt	Error
21.0	21.2	0.2
21.0	21.1	0.1
21.0	21.1	0.1
20.5	20.6	0.1
20.5	20.6	0.1
20.5	20.5	0
20.5	20.4	0.1
21.5	21.5	0
21.5	21.4	0.1
21.5	21.4	0.1
22.0	21.9	0.1
22.0	22.0	0



Compile and run this application on the AVD and/or Android smartphone.

Exercise 2 (A simple quiz)

Develop a Java Android app for the topic related to your final year/ course project. You can find an example of the simple Star Wars quiz in the class presentation:



Exercise 3 (2D game; **optional**)

Develop a 2D game on the Java Android platform. You can find details in the class presentation:



In the report, please provide a detailed description of four Java Android projects:

1. Moving background
2. Flight is moving up and down
3. Animated bullets and shots
4. Final Java Android project of 2D game