Lab 8 for CSE121, Spring'23

Due Date: 06/08/23

This lab is the optional Rust lab. You can use this lab for extra credit if you were late in 2 labs (2nd loses points) or if some labs had missing points (extra credit)

https://esp-rs.github.io/espressif-trainings/01_intro.html

https://github.com/esp-rs/esp-idf-template

Lab 8.1: Hello world (7 points)

The goal of this task is to document in report.pdf the steps (installation) to get a simple "hello world" in Rust running. The report.pdf should also show the output (monitor).

Lab 8.2: Temperature/Humidity (3 points)

Run the i2c-sensor-reading:

https://github.com/esp-rs/espressif-trainings/tree/main/advanced/i2c-sensor-reading

It should print something like:
Device ID SHTC3: 0x47
TEMP: 24.61 °C | HUM: 47.25 %
TEMP: 24.63 °C | HUM: 47.26 %
TEMP: 24.62 °C | HUM: 47.24 %
TEMP: 24.59 °C | HUM: 47.26 %
….

Lab 8.3: Board Movement (10 points)

The goal of this lab is to reproduce lab 3.1 (board movement) in Rust. Instead of ESP_LOGI, you can just print to the monitor with print! In Rust. Look at the "i2c-driver/src" from esspressif-trainings and part_2 from advanced/i2c-sensor-reading.
To read the accelerometer, you can check this code: https://github.com/jessebraham/icm42670

What/How to submit

Same instructions as lab1. Upload the zip with the code and report.pdf to Canvas.