Alexandria University
Faculty of Engineering
Computer and Systems Engineering Department

CSE233 Computer Organization
Assigned: Saturday 15/11/2025
Due: Saturday 22/11/2025

Lab Experiment 06: Debugger

Objectives

Getting familiar with debugging hardware based on software debugger (virtual micro).

Problem Statement

You are required to augment the provided arduino sketch to interface a latch button and led (use the arduino built in led) that changes its state based on the latched value. You are required to put a break point on increment line that is based on the latched value. If the button state is changed, you should break the excution of your program and print the led state.

Sketch: https://drive.google.com/file/d/1LTWQucbOmZqX59do3c6xp2v78pr0lLhb/view?usp=sharing

References

- Virtual Micro installation and setup
  Link: https://docs.google.com/presentation/d/1u8tkG_2-CRTJuDgb7oBBJfTQiaVdcTrU/edit?usp=sharing&ouid=102450282224179968221&rtpof=true&sd=true
- Simple debugging examples session
  Link: https://docs.google.com/presentation/d/1BFvNIbAaOTEjHZBsfHGmi0-gq6o45_F6/edit?usp=sharing&ouid=102450282224179968221&rtpof=true&sd=true
- Virtual Micro Docs
  Link: https://drive.google.com/drive/folders/1LD8HXh2VYnKj3XtzN3PAQuy9BBnL80WN?usp=sharing

Delivery Policy

- Each group must send a 40-second video for the system showing the behavior of the debugger with respect to changes in the latch.
- You should submit a report showing your schematic diagram, screenshots for on and off states, and the challenges you faced (if any).
- You should submit the sketch source code (.ino file(s)).
- You should cite any additional resources you used.
- Further details for the submission instructions will be posted later on MS Teams.

Good Luck