

CS 352 Homework

Alumem

1 Overview

Your task in this homework is to learn about several fundamental operations of all computers: arithmetic, logic, and storing data. You will do this using a hardware description language (HDL) designed by the authors of your textbook.

2 Requirements

You must complete all of the following to receive Blugolds for this homework:

1. Complete all the chips of chapter 2: `HalfAdder`, `FullAdder`, `Add16`, `Inc16`, and `ALU`.
2. Complete all the chips of chapter 3: `Bit`, `Register`, `PC`, `RAM8`, `RAM64`, `RAM512`, `RAM4K`, and `RAM16K`. The RAM chips will all have similar structure.

Test your solutions using the `HardwareSimulator` provided in the book's `tools` directory.

3 Later-week Submission

To qualify for later-week submission, you must complete the chips of chapter 2.

4 Submission

To submit your work for grading:

1. Run the grading script from your homework directory using `../specs/grade`.
2. Commit and push your work to your repository.
3. Verify that your solution is on Bitbucket by viewing your repository in a web browser.

A passing grading script does not guarantee you credit. Your grade is conditioned on a few things:

- You must meet the requirements described above. The grading script checks some of them, but not all.
- You must successfully submit your code to your repository. Expect to have issues with Git.
- You must not plagiarize. Write your own code. Talk about code with your classmates. Ask questions of your instructor or TA. Do not look at others' code. Do not ask questions specific to your homework anywhere online but Piazza. Your instructor employs a vast repertoire of tools to sniff out academic dishonesty, including: drones, moles, and a piece of software called MOSS that rigorously compares your code to every other submission. You don't want to live in a world serviced by those who squeaked by through questionable means. For your future self, career, and family, do your own work.

The grading script allows you to signal your instructor when requirements are met. You only need to send an email if you qualified for later week submission and are resubmitting after the original deadline.