

In the Name of God
Computer Architecture Lab
Homework 1

- Upload the zip file of your homework on Quera.
- Create test files for each of your modules.
- Include only .v files and a video explaining your code and test files.

Modules you need to implement for this homework:

1. 32-bit Multiplexer:

- Inputs: 2 x 32bit for values, 1 selection line input
- Outputs: 1 x 32bit for output

2. PC Register:

- Inputs: 1 x 32bit for next instruction address, 1bit for clock
- Outputs: 1 x 32bit for instruction address

3. Instruction Memory:

- Inputs: 1 x 32bit for address, 1bit for clock
- Outputs: 128bit for dataline (As we intend to read 4 consecutive instructions, and each are 32bits wide)