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**Lab 6 Discussion**

1. Lab 6 Discussion

In the sixth lab class, we were given an in-depth introduction on what register files are, how they work, and how they are designed. A register file is a small set of high-speed storage cells inside the CPU. A register file functions as follows: any value provided on read register results in the content of the corresponding register being provided on the read data , on the falling edge of write line, values that appear on write data are written into the register with the number specified on the write register. In this class, were shown the complete design of a 2 bit register file. We were shown how demux and muxes used to deal with this design. The instructor also went through the design of 16bit register file briefly as it was similarly designed as the 2 bit one. The class concluded by instructing us to submit the discussion in google classroom and the circuit files for both 2bit and 16bit simulated in Logisim in git.