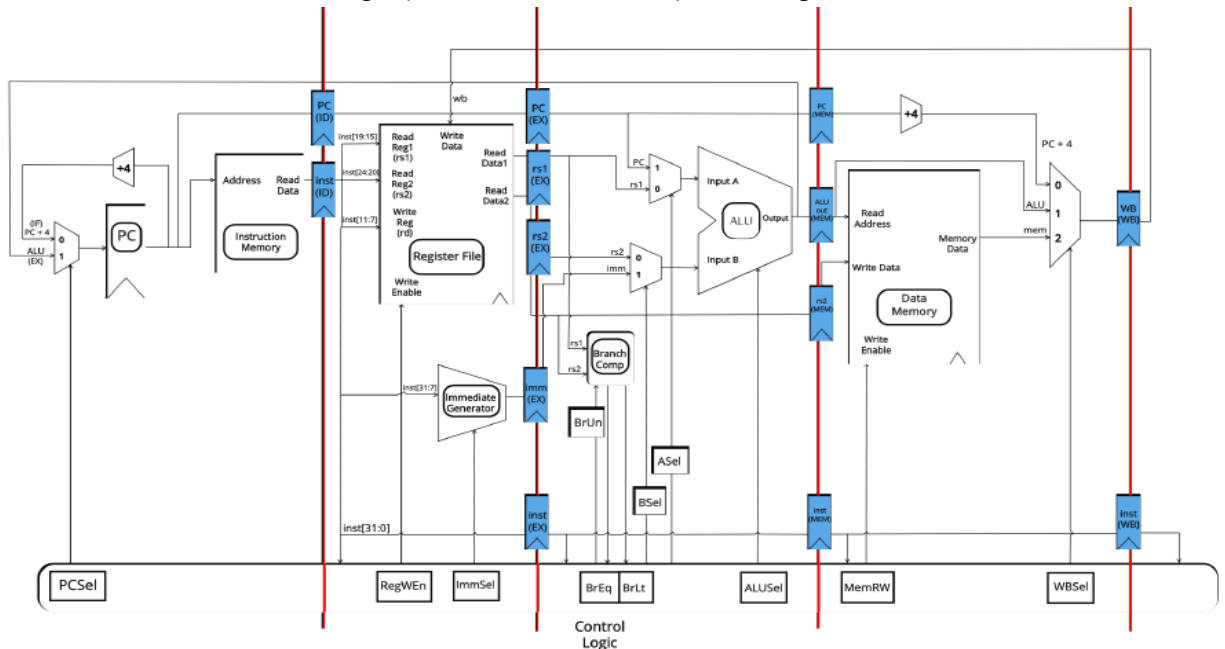


1. Based on what we covered in class,
 - a) ENIAC is the first general-purpose, digital computer. IF NOT name the first general purpose computer
 - b) Is it true that The task done by any software program can also be done by hardware.
 - c) GHz is often used to measure the frequency/clock speed of a computer , if not what is used to measure the speed of computer
 - d) Because of VLSI technologies, current computers become cheaper and more powerful.
 - e) ALU, registers, and a control unit are typically included inside CPU
2. What does the control unit in a CPU do?
3. what are the different types of registers ? Where are registers located ?
4. How does the ALU know which function to perform?
5. Explain the differences between data buses, address buses, and control buses.
6. Explain the relation between clock cycle time and clock frequency.

1. In order to pipeline, we add registers between the five datapath stages.
 - a. Label each of the five stages (IF, ID, EX, MEM, and WB) on the diagram below.



- b. What is the purpose of the new registers?
 - c. Why do we need to save the instruction in a register multiple times?
2. Extra External question: What are the main roles of operating Systems (OS)?