Python version required: PyCharm 3.10 or higher to run the application.

Open and run this project in PyCharm.

Computer Operation:

1. 16 button on the bottom side of the window can
2. Each LD button can be clicked to load the binary value
3. The Store button can store current MBR value into the memory, using current MAR value as the address.
4. The Load button can display the binary of address of current MAR in the memory on the MBR
5. Init (IPL) button starts the computer
6. Initializes the memory (Reading the content from the IPL.txt file)
7. PC is ready to be used (By clicking SS or RUN button)
8. If clicking console button, it will print all
9. If clicking SS button
10. The computer will run one instruction and the GUI will be updated
11. Continue to click the SS button to execute a single instruction
12. If clicking RUN button
13. The entire program will be executed. After finishing, the Halt light will be lighted

Note:

If doing any update about the memory, all the content in the memory will be displayed on the console window on PyCharm.