

# CS6461 Project Part 1

Brian Prisbe, Charles Liu, Christian Guardado, Danacea Vo

## Java Version Required: JDK 16 or Higher to run the application

How I ran on my computer using JDK-17:

```
C:\Users\bpris\Desktop\jdk-17\bin>java -jar "C:\Users\bpris\Desktop\Project Part 1\CS6461.jar"
```

1. Downloaded jdk-17
2. Command Prompt – went into jdk-17/bin
3. Ran “java -jar “absolute path to jar file””

## Computer Operation:

1. IPL button starts computer
  - a. Initializes the memory (Reads from ipl.txt file)
  - b. Sets PC to 6 (We assume first instruction will be given at 6)
  - c. Waits for either run or single step (SS)
2. If SS clicked
  - a. Will run one instruction and GUI will be updated
  - b. Continue to click SS to execute a single instruction
3. If Run click
  - a. The entire program will be executed
4. When program finishes – Click IPL button to restart program

## Additional Functionality

- Create a binary value in GUI (Operation, GPR, IXR, I, Address)
- This binary value can be loaded in any of the registers that have **LD** buttons
- The binary value can also run Load and Store instructions
  - o Assuming the correct Opcode is given for a load or store instruction
- **Console**
  - o **Mem Console Button** - Prints all memory contents to console
  - o Prints an error if incorrect instruction for Load and Store buttons
  - o Prints when the program has finished

## **Changing Initial Program**

- To change program that the computer will read from, you will need to edit the ipl.txt file that is in the src folder