

USER GUIDE

BY-TEAM 1

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The Program Counter address starts from 3596 so we must initialize the PC with 3596(0000111000001100) by loading into a common bus and click the LOAD button near the PC and all the given instructions will be stored in the addresses starting from 3596. Then the address of the PC is transferred to the Memory Address Register and then the Memory Control Unit fetches the word from memory using the address of MAR and places it in the Memory Buffer Register. The contents of the Memory Buffer Register are then moved to the Instruction Register.

HOW SIMULATOR WORKS-

- Install Java SE 21 version (Product: x64 Installer) to run the Jar file. Link to download Java SE 21 (https://download.oracle.com/java/21/latest/jdk-21_windows-x64_bin.exe)
- Create the following path in the machine (C:\Users\prana\Downloads\CSA_ProjectTeam\CSA_ProjectTeam\input.txt) and store the input.txt file.
- Enter 0000111000001100(3596) in the common bus and click on the LOAD Button near the PC.
- Click IPL to initialize the memory and instructions with values from the input.txt file. It also initializes and shows all data simultaneously.
- Click on the Single Step button for load and store to execute and the output value is displayed in registers.
- Follow the above steps and click on RUN for the instructions to be executed and the final output is displayed.