

CSCI 6461 Computer System Architecture

Project Part 2 User Guide

Team 12

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Preparation Instructions

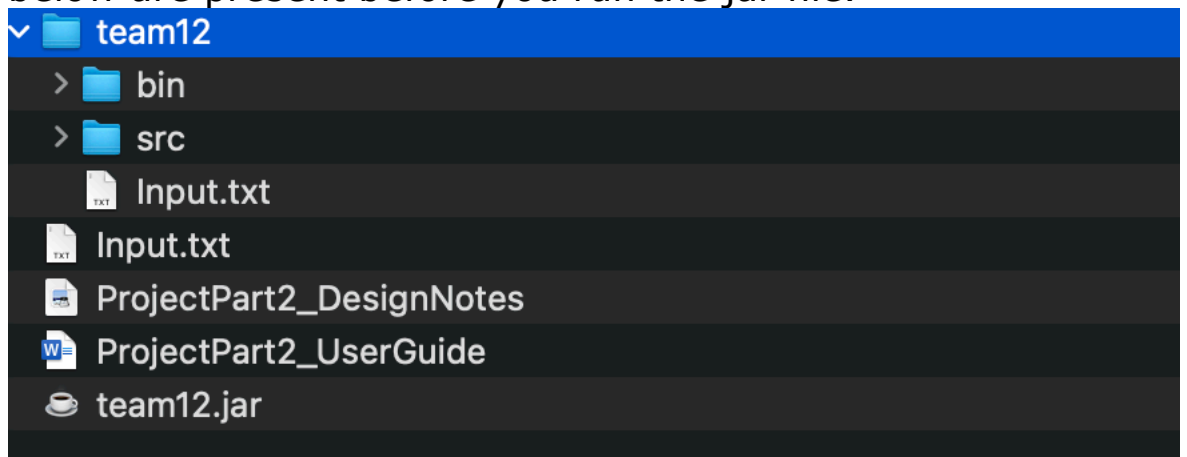
Install Java.

Download the below file from the blackboard.

Filename: team12.zip

Execution Instructions:

1. Download the file named team12.zip.
2. Extract Zip file and make sure all the files indicated below are present before you run the jar file.



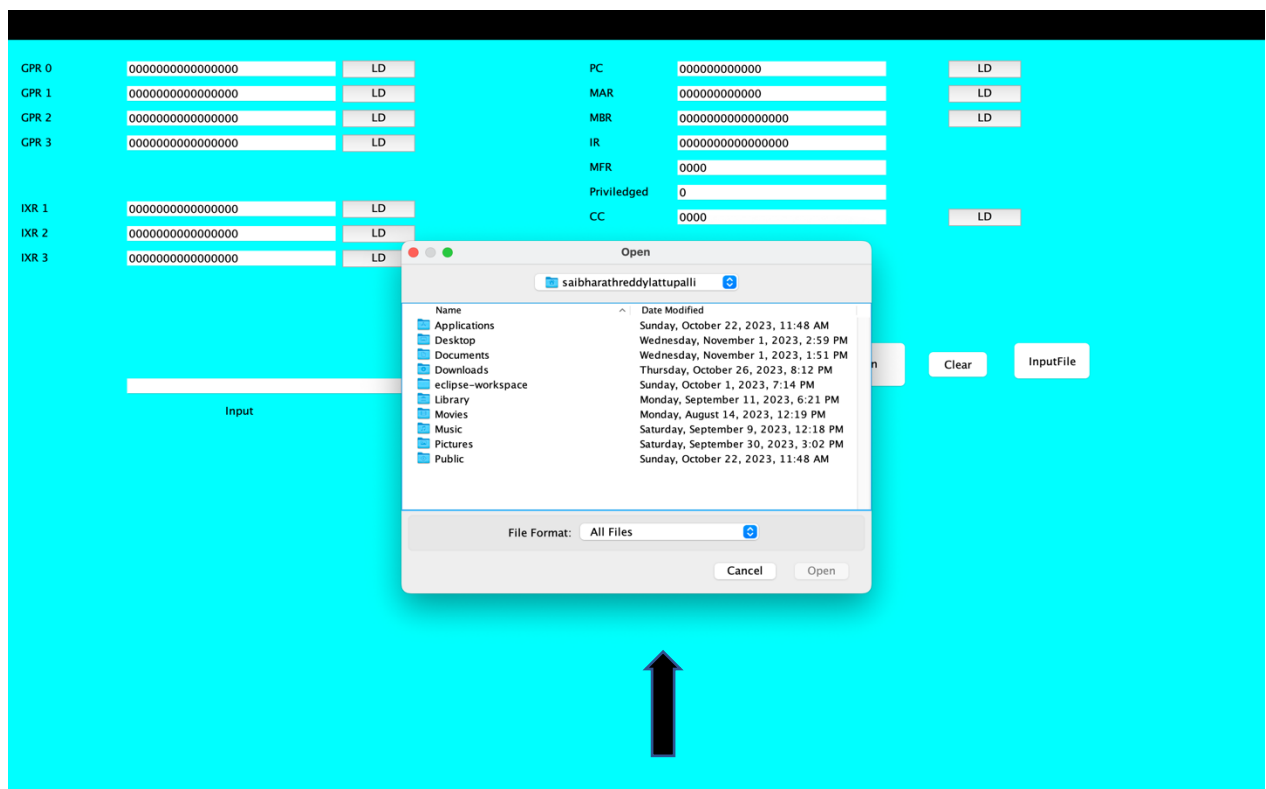
3. Double click on team12.jar to run the jar file/ open terminal and execute "java -jar team12.jar" from the folder where you have these files.

Updates in this Phase:

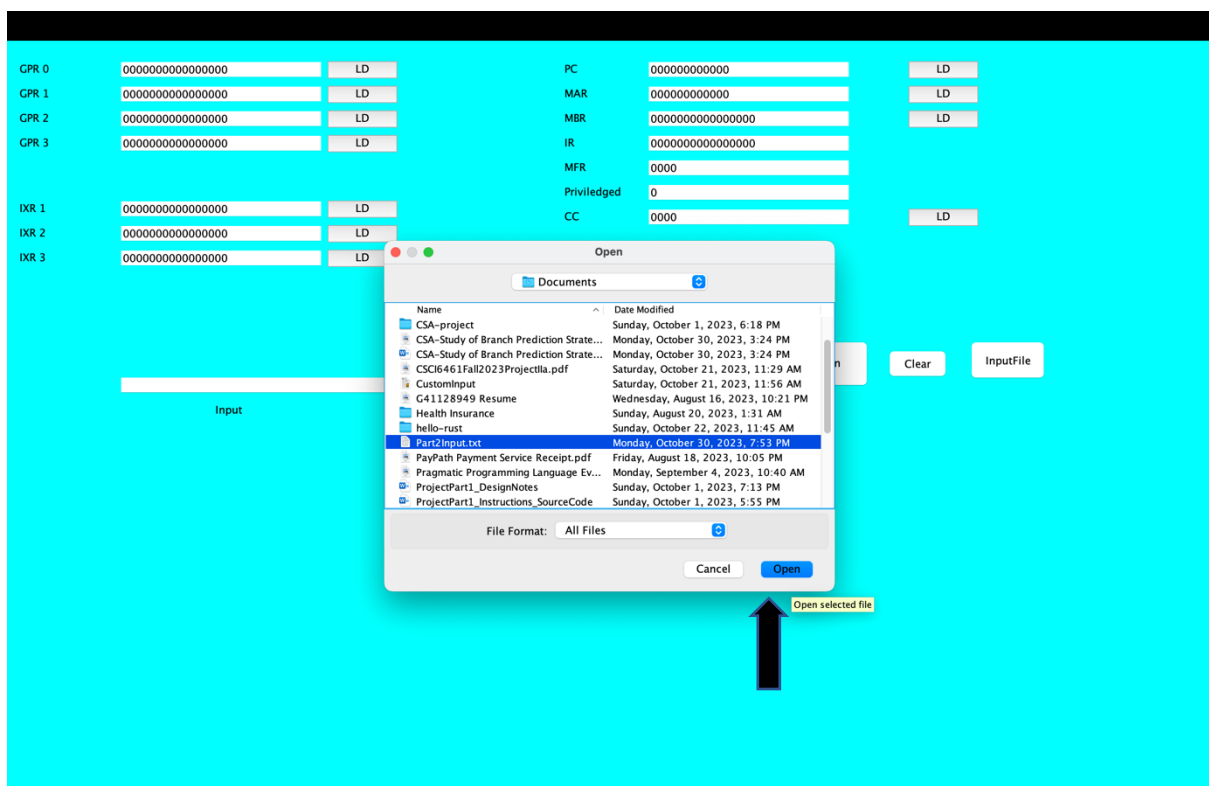
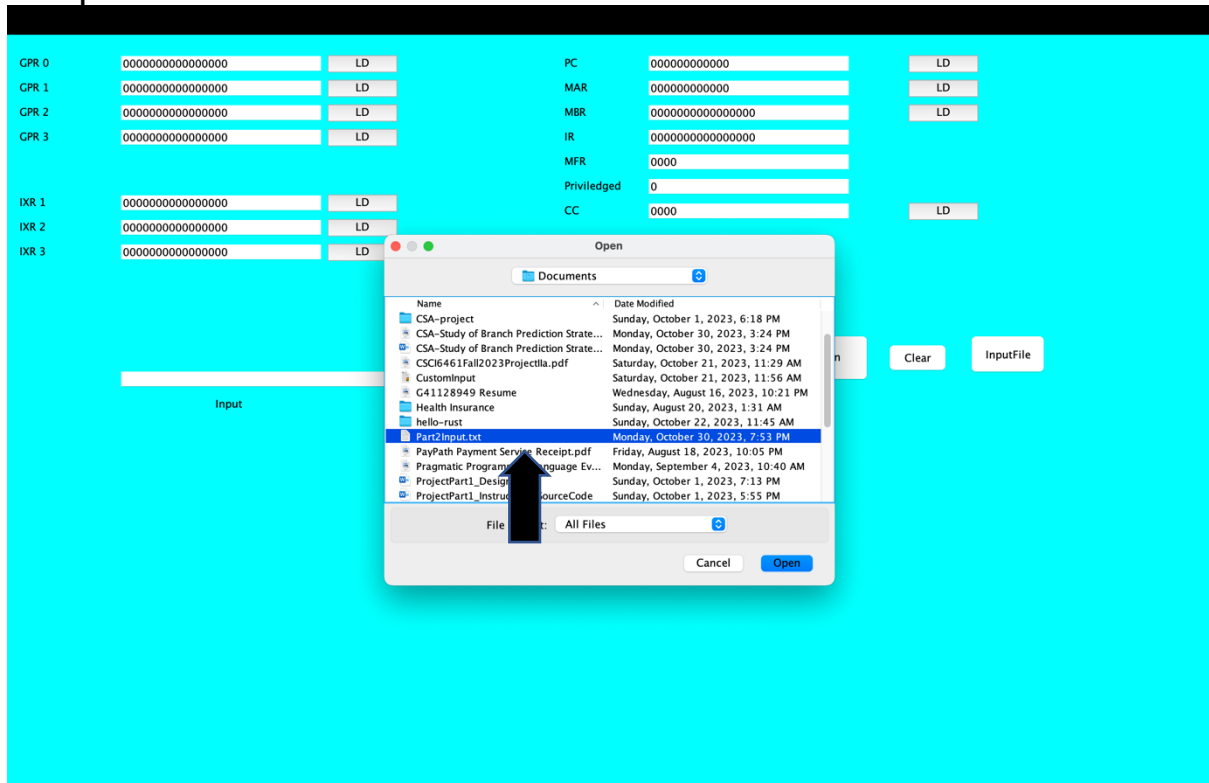
In this phase we have added an extra feature to take a file with Instructions from the user and convert its contents to hexadecimal format.

Operating the Simulator

1. Click on "InputFile" button. A popup will appear asking the user to select their intended file.



2. Select the file, here I have selected "Part2Input.txt", click on open.



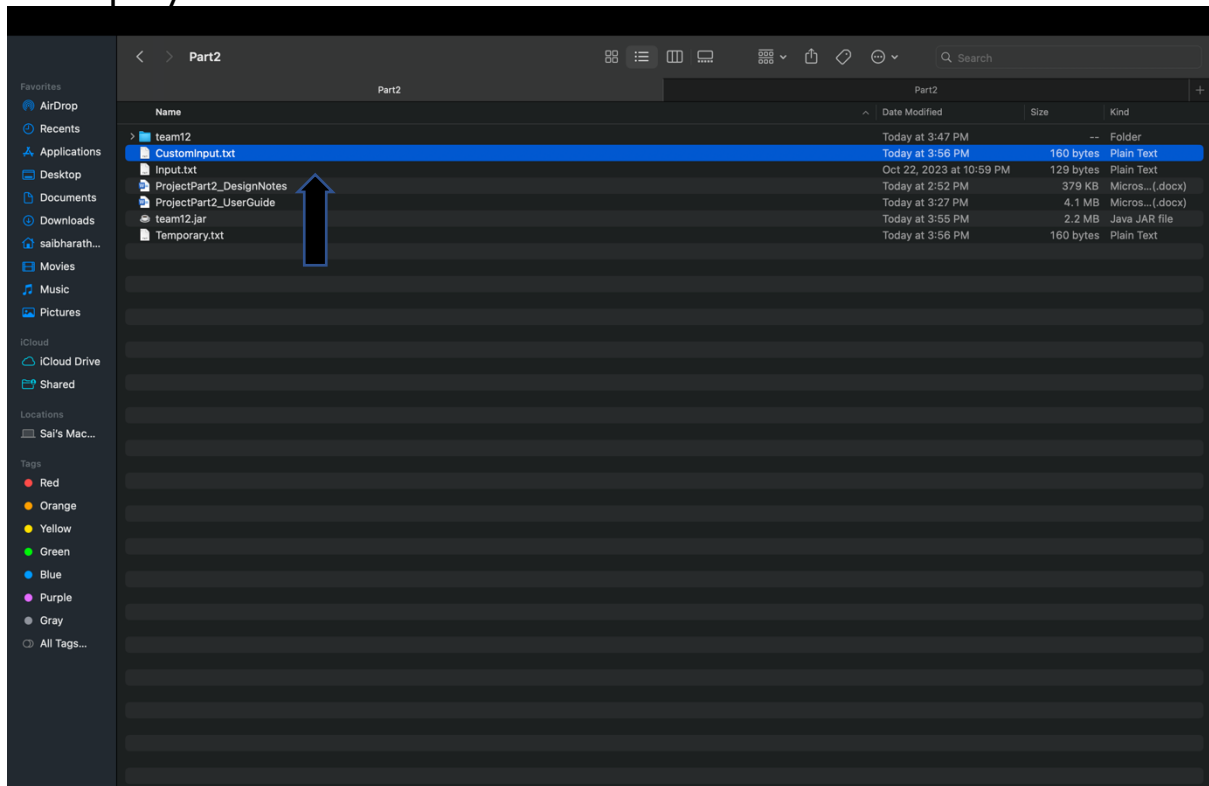
3. If file is selected successfully then the absolute path of the selected file will be displayed on the UI.

The screenshot displays a debugger interface with various registers and control elements. On the left, General Purpose Registers (GPR 0-3) and Instruction Registers (IXR 1-3) are listed, each with a hexadecimal value field and a Load (LD) button. On the right, other registers like PC, MAR, MBR, IR, MFR, Privileged, and CC are shown with their respective values and LD buttons. Below the registers, there is an 'Input' label and a text input field. To the right of the input field is a control panel with buttons: 'Load', 'Store', 'INIT' (highlighted in pink), 'SS', 'Run', 'Clear', and 'InputFile'. Below the control panel, the text 'File Selected: /Users/saibharathreddylattupalli/Documents/Part2Input.txt' is displayed. A large black arrow points upwards from the bottom towards this text, indicating the successful selection of a file.

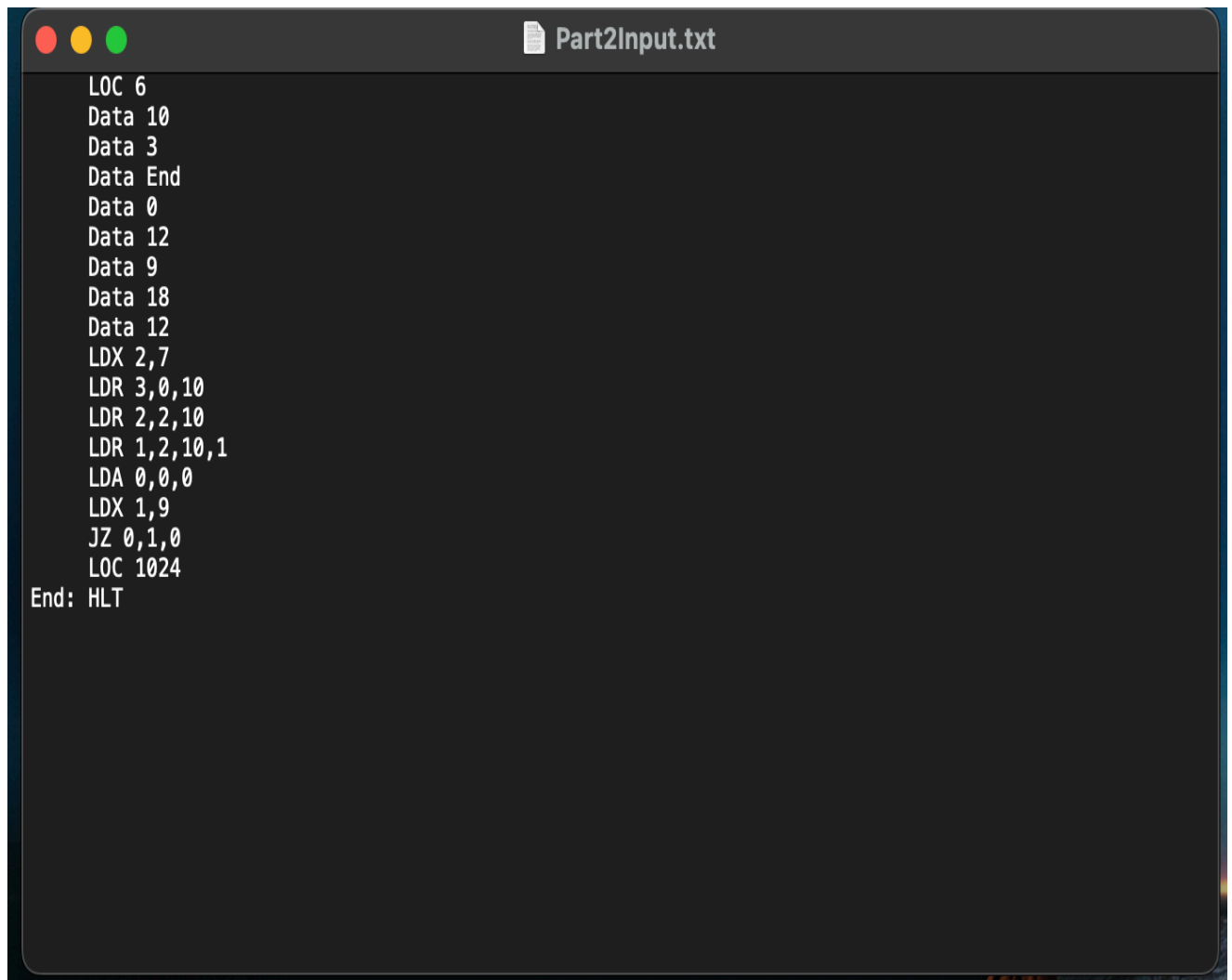
Else, If user has clicked "Cancel" in step 2, "the user cancelled the operation" will be displayed on the UI.

This screenshot shows the same debugger interface as the previous one, but with a different status. The registers and control buttons remain the same. However, the text 'the user cancelled the operation' is now displayed in the center of the interface. A large black arrow points upwards from the bottom towards this text, indicating the result of a cancelled operation.

4. If file is selected successfully, then its contents will be converted to hexadecimal format will be written to a new file "CustomInput.txt" and the first address in this file will be displayed at "PC".



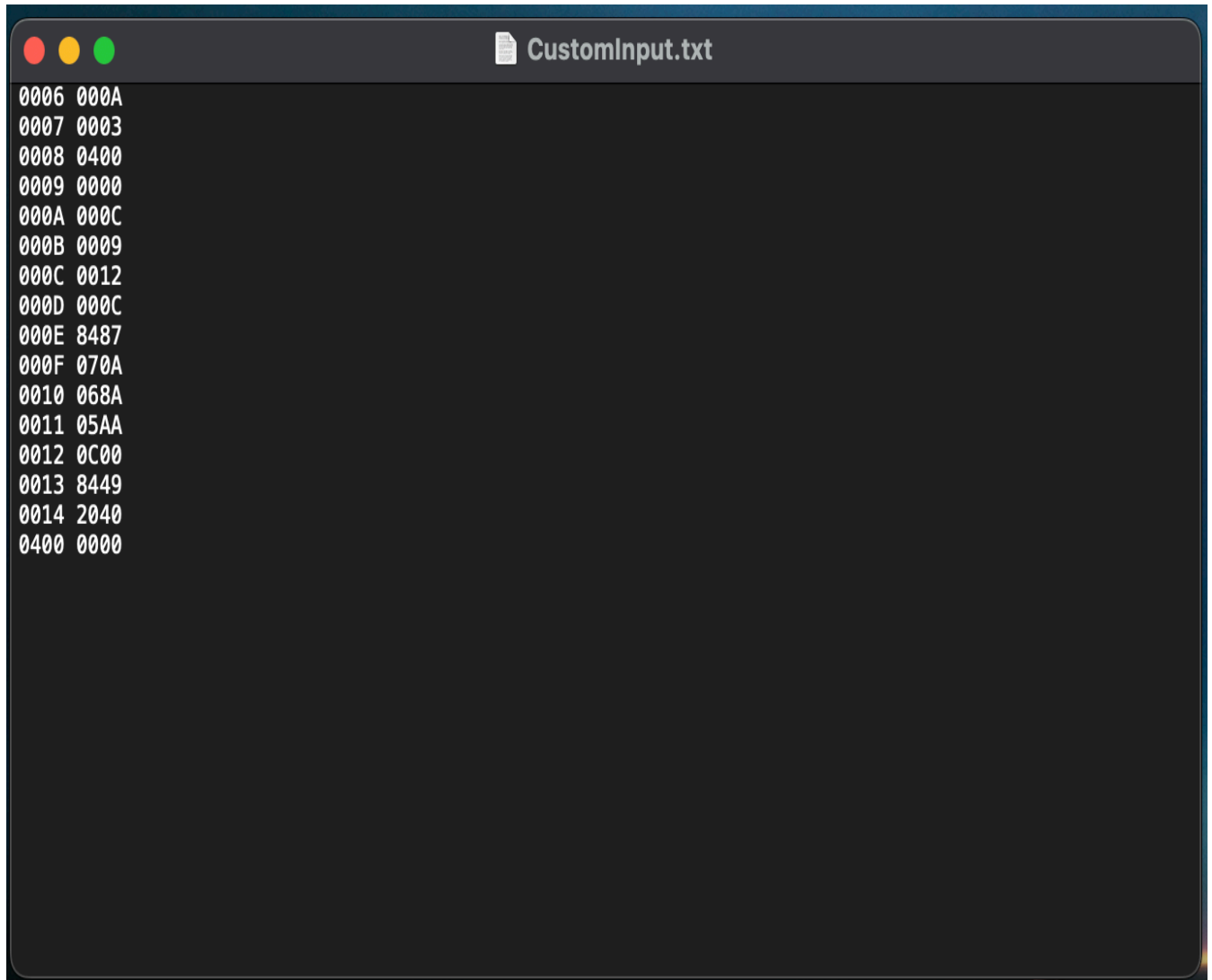
- **Content of “Part2Input.txt”(User File)**



A screenshot of a text editor window titled "Part2Input.txt". The window has a dark background and a title bar with three colored buttons (red, yellow, green) on the left. The text inside the window is as follows:

```
LOC 6
Data 10
Data 3
Data End
Data 0
Data 12
Data 9
Data 18
Data 12
LDX 2,7
LDR 3,0,10
LDR 2,2,10
LDR 1,2,10,1
LDA 0,0,0
LDX 1,9
JZ 0,1,0
LOC 1024
End: HLT
```

- **Content of “CustomInput.txt” (generated File)**



```
0006 000A
0007 0003
0008 0400
0009 0000
000A 000C
000B 0009
000C 0012
000D 000C
000E 8487
000F 070A
0010 068A
0011 05AA
0012 0C00
0013 8449
0014 2040
0400 0000
```