CSCI 6461 Computer System Architecture
Project Part 2 User Guide
Team 5

• Jaiswal Nitish
• Jadhav Yash
• Jiang Xuechun

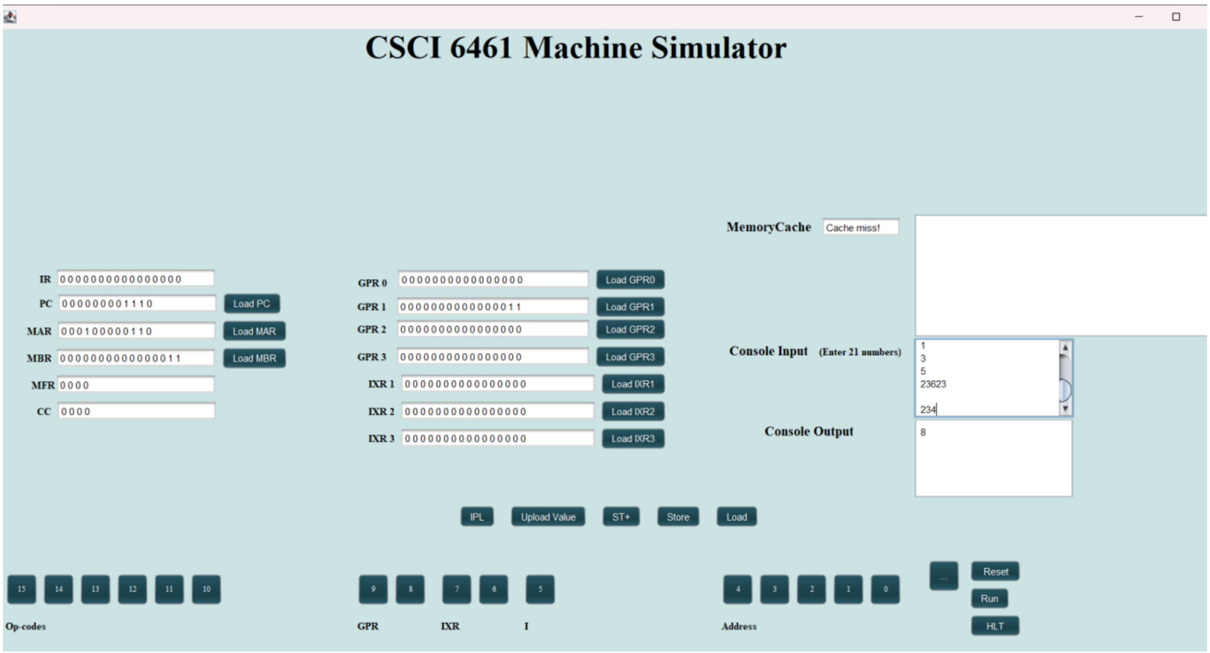
Running the jar file

- Download the zip file and extract the zip file.
- You will find the "csaproject2.jar".
- Run the jar file by running the command

```
java -jar csaproject2.jar
```

Operating Simulator

1. Click on ipl button and select demo.txt.



CSCI 6461 Machine Simulator

MemoryCache: Cache miss!

IR: 0000000000000000
PC: 000000001110
MAR: 000100000110
MBR: 0000000000000011
MFR: 0000
CC: 0000

GPR 0: 0000000000000000
GPR 1: 0000000000000011
GPR 2: 0000000000000000
GPR 3: 0000000000000000
IXR 1: 0000000000000000
IXR 2: 0000000000000000
IXR 3: 0000000000000000

Console Input (Enter 21 numbers):

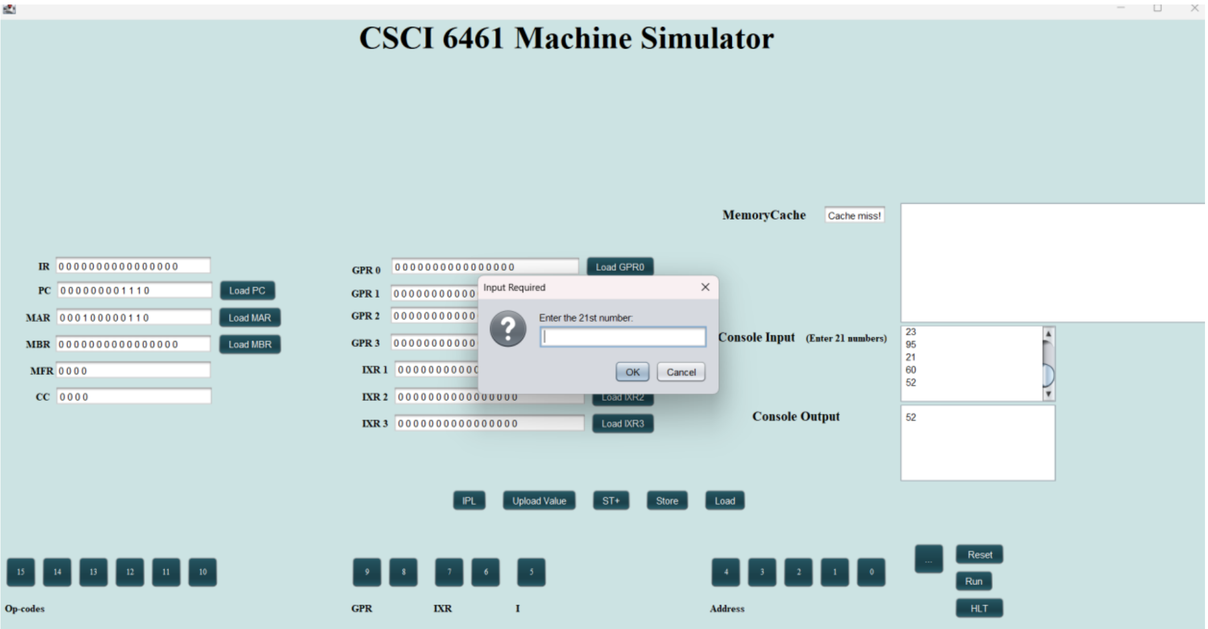
```
1
3
5
23623

234
```

Console Output:

```
8
```

2. Before clicking on program 1, enter 21 numbers within the range [0, 65536) in the Keyboard Console, using ENTER to enter the number and put the next number. The last number you enter will be the search number we intend to find. If no numbers are provided, default values will be used.



IR 0000000000000000

PC 000000001110

MAR 000100000110

MBR 0000000000000000

MFR 0000

CC 0000

GPR 0 0000000000000000

GPR 1 00000000000

GPR 2 00000000000

GPR 3 00000000000

IXR 1 00000000000

IXR 2 0000000000000000

IXR 3 0000000000000000

Input Required

Enter the 21st number:

MemoryCache Cache miss!

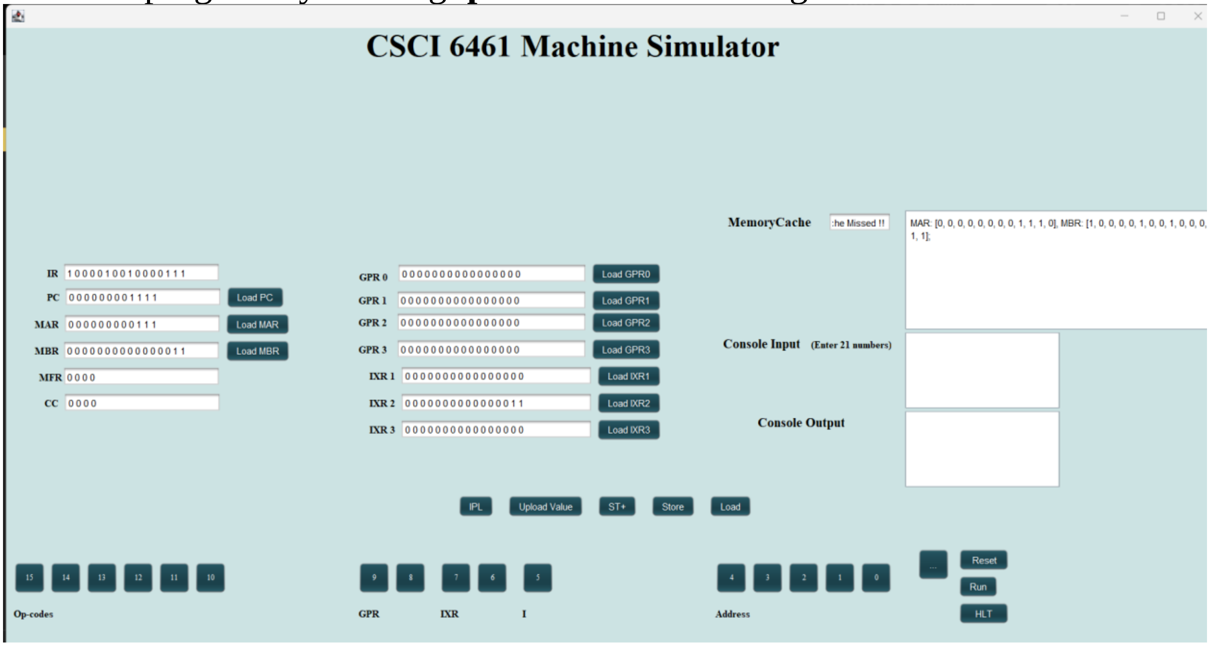
Console Input (Enter 21 numbers)

23
95
21
60
52

Console Output

52

3. Load the program by clicking **ipl** button and selecting load.txt.



IR 1000010010000111

PC 000000001111

MAR 000000000111

MBR 0000000000000011

MFR 0000

CC 0000

GPR 0 0000000000000000

GPR 1 0000000000000000

GPR 2 0000000000000000

GPR 3 0000000000000000

IXR 1 0000000000000000

IXR 2 0000000000000011

IXR 3 0000000000000000

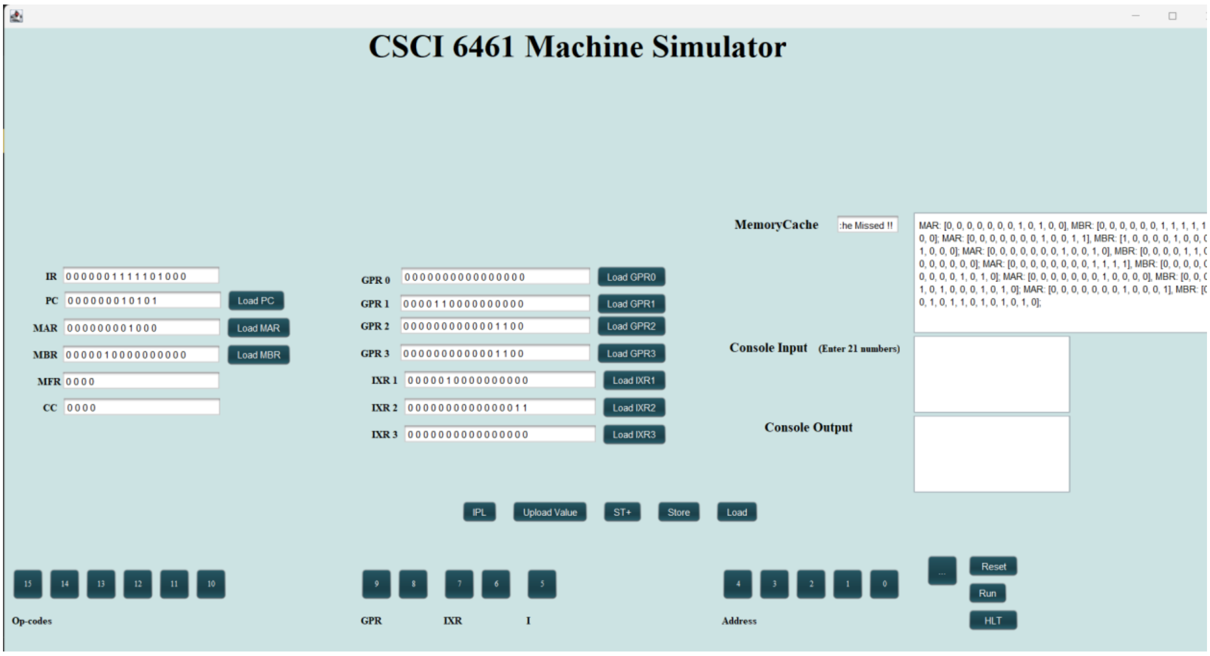
MemoryCache :he Missed !!

MAR: [0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 0], MBR: [1, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0,
1, 1];

Console Input (Enter 21 numbers)

Console Output

4. Click the Run button to execute the program all at once. If you prefer to run the program step by step, click on the SS button.



CSCI 6461 Machine Simulator

IR 0000001111101000

PC 000000010101

MAR 000000001000

MBR 0000010000000000

MFR 0000

CC 0000

GPR 0 0000000000000000

GPR 1 0000110000000000

GPR 2 0000000000001100

GPR 3 0000000000001100

IXR 1 0000010000000000

IXR 2 0000000000000011

IXR 3 0000000000000000

MemoryCache :he Missed !!

```
MAR: [0, 0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 0], MBR: [0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1
0, 0]; MAR: [0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 1], MBR: [1, 0, 0, 0, 0, 1, 0, 0,
1, 0, 0, 0]; MAR: [0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0], MBR: [0, 0, 0, 0, 1, 1,
0, 0, 0, 0, 0, 0]; MAR: [0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1], MBR: [0, 0, 0, 0,
0, 0, 0, 0, 1, 0, 1, 0]; MAR: [0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0], MBR: [0, 0,
1, 0, 1, 0, 0, 0, 1, 0, 1, 0]; MAR: [0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 1], MBR: [
0, 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 0];
```

Console Input (Enter 21 numbers)

Console Output