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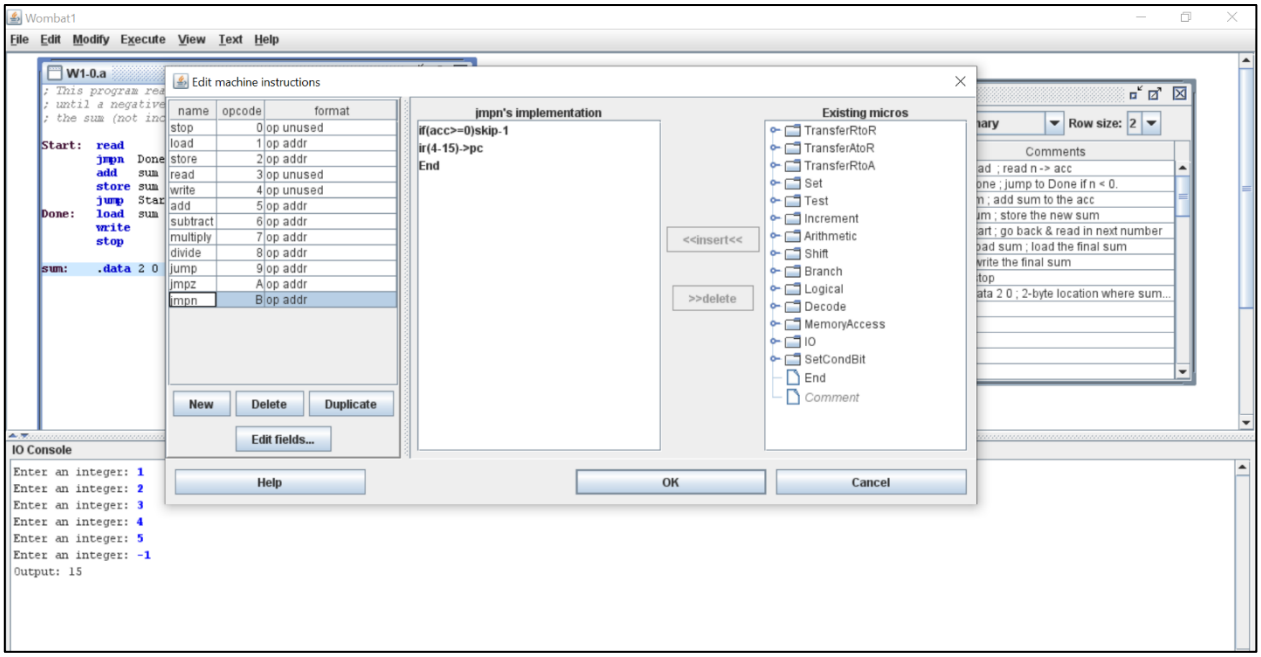
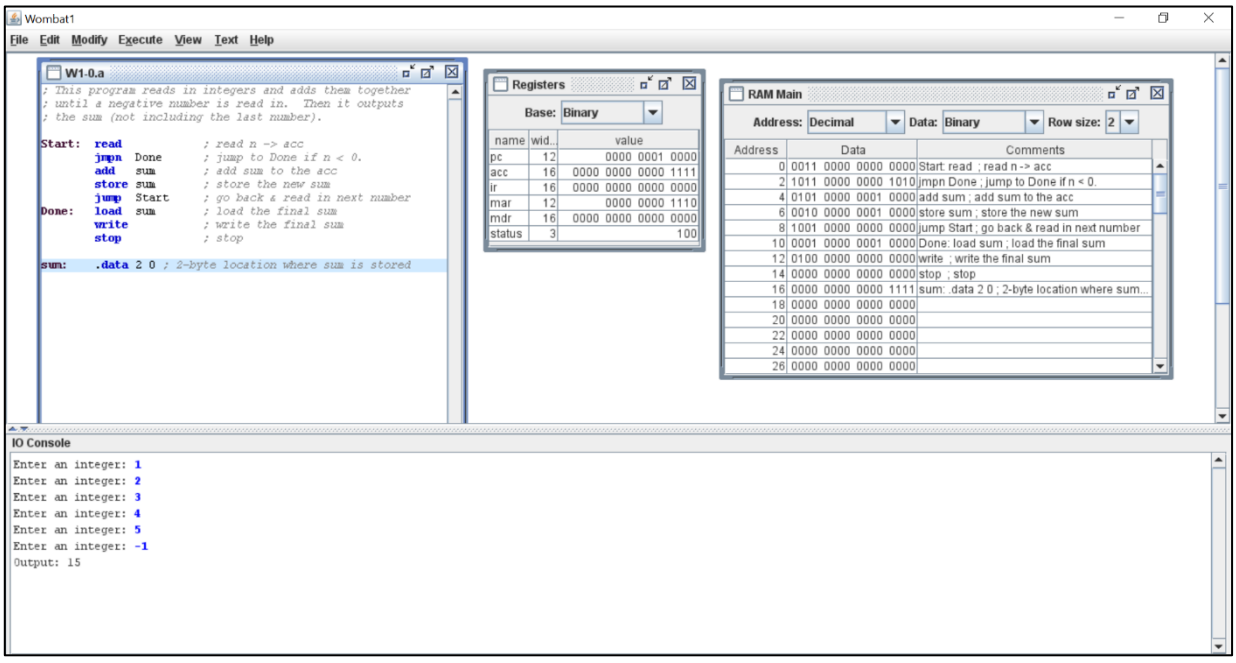
ROLL NO – 2021334

CSA PRACTICAL: ASSIGNMENT 5

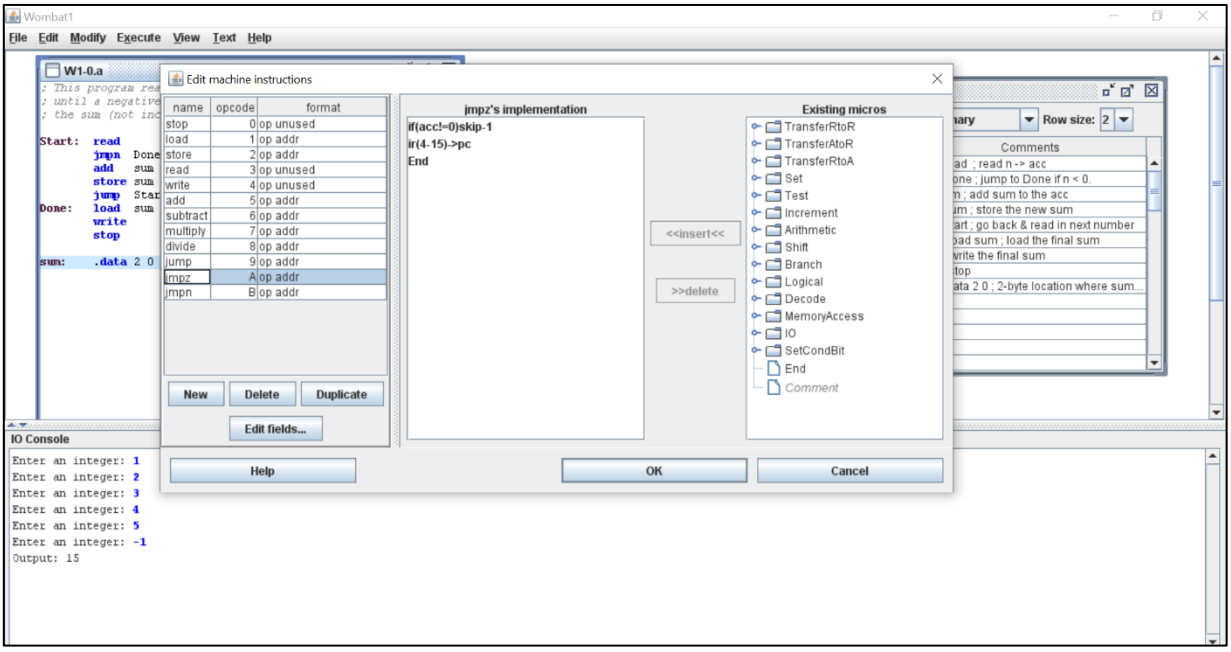
11. Write an assembly program that reads in integers and adds them together; until a negative non-zero number is read in. Then it outputs the sum (not including the last number).



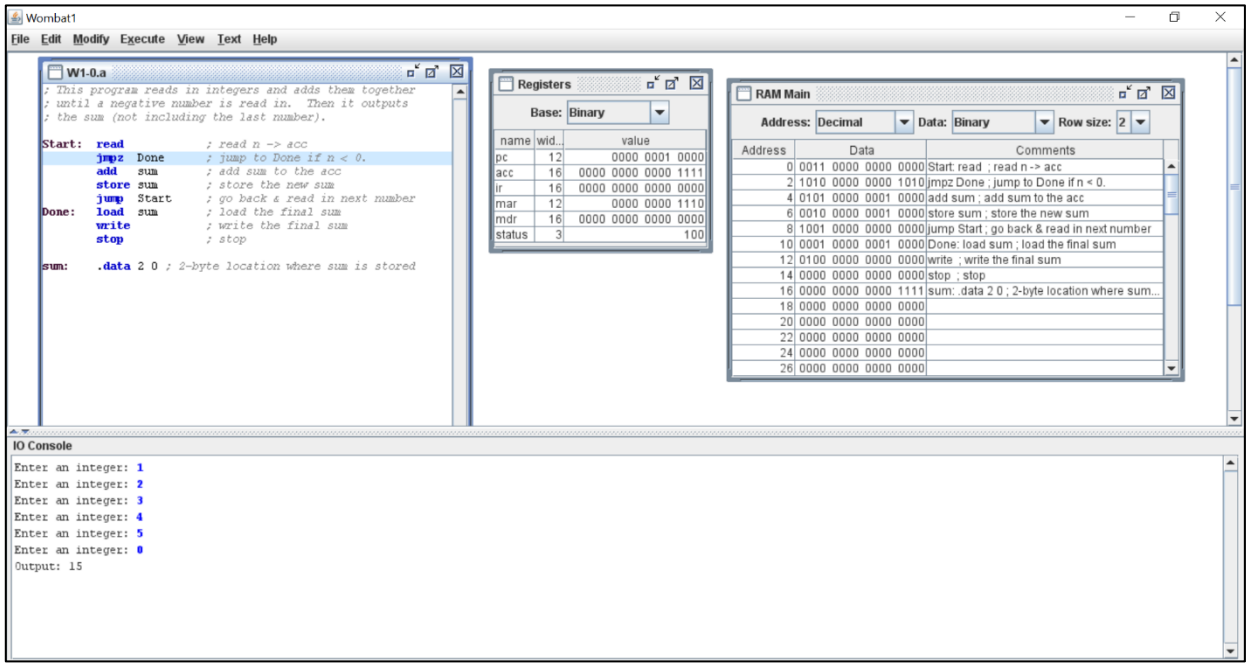
OUTPUT



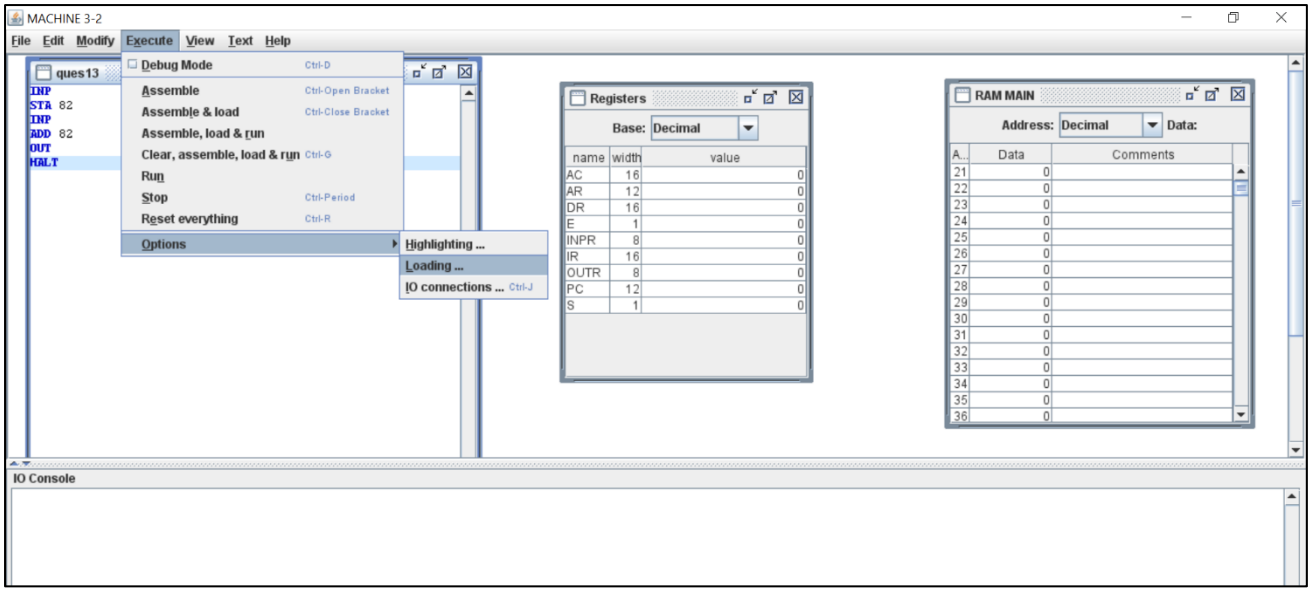
12. Write an assembly program that reads in integers and adds them together; until zero is read in. Then it outputs the sum.

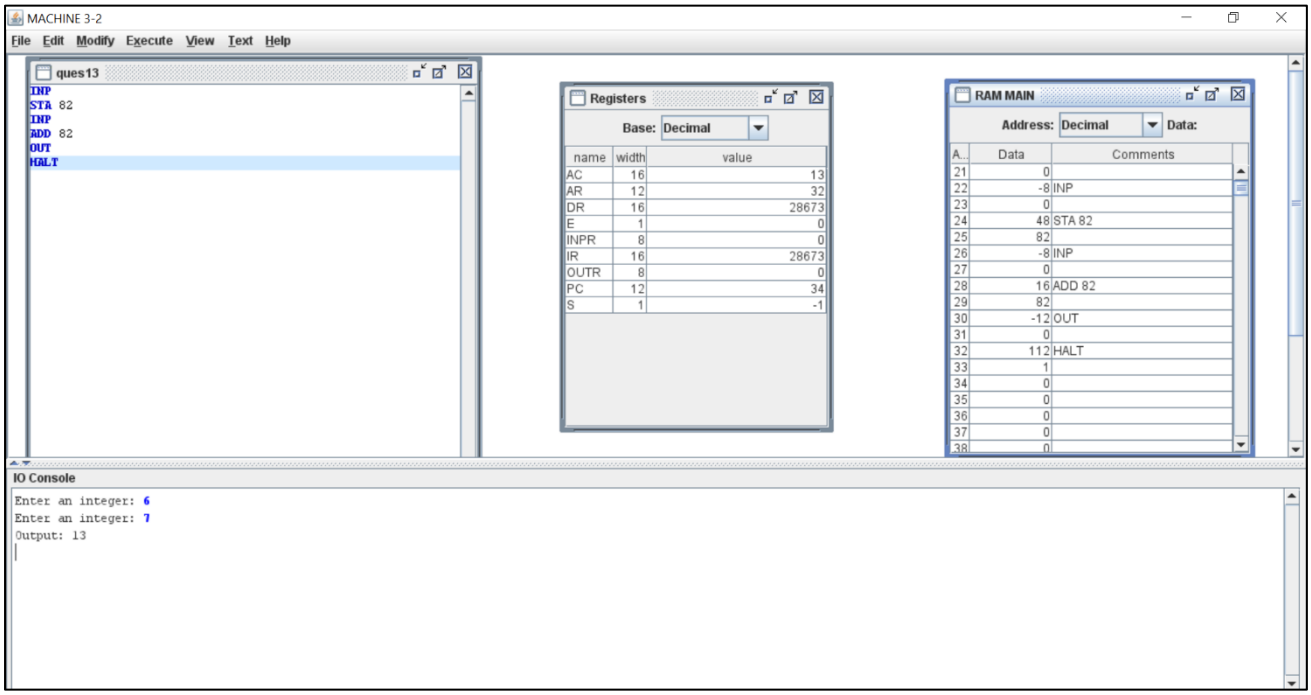


OUTPUT



14. Referring to the instruction format in question 13, simulate the machine for the following memory-reference instructions with I= 0 and address part = 082. The instruction to be stored at address 022 in RAM. Initialize the memory word at address 082 with the operand 632 and AC with 937. Determine the contents of AC, DR, PC, AR and IR in decimal after the execution.


MACHINE 3-2
File Edit Modify Execute View Text Help
ques13
INP
STA 82
INP
ADD 82
OUT
HALT
Debug Mode Ctrl-D
Assemble Ctrl-Open Bracket
Assemble & load Ctrl-Close Bracket
Assemble, load & run
Clear, assemble, load & run Ctrl-G
Run
Stop Ctrl-Period
Reset everything Ctrl-R
Options
Highlighting ...
Loading ...
IO connections ... Ctrl-J
Registers
Base: Decimal
name width value
AC 16 0
AR 12 0
DR 16 0
E 1 0
INPR 8 0
IR 16 0
OUTR 8 0
PC 12 0
S 1 0
RAM MAIN
Address: Decimal Data:
A... Data Comments
21 0
22 0
23 0
24 0
25 0
26 0
27 0
28 0
29 0
30 0
31 0
32 0
33 0
34 0
35 0
36 0
IO Console


MACHINE 3-2
File Edit Modify Execute View Text Help
ques13
INP
STA 82
INP
ADD 82
OUT
HALT
Registers
Base: Decimal
name width value
AC 16 13
AR 12 32
DR 16 28673
E 1 0
INPR 8 0
IR 16 28673
OUTR 8 0
PC 12 34
S 1 -1
RAM MAIN
Address: Decimal Data:
A... Data Comments
21 0
22 -8 INP
23 0
24 48 STA 82
25 82
26 -8 INP
27 0
28 16 ADD 82
29 82
30 -12 OUT
31 0
32 112 HALT
33 1
34 0
35 0
36 0
37 0
IO Console
Enter an integer: 6
Enter an integer: 7
Output: 13