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EOC Assignment 4

q1) SimpleAdd.vm

CPU Emulator (2.5) - D:\HarikrishnaPillai_AM.EN.U4AIE21034\nand2tetris\projects\07\StackArithmetic\SimpleAdd\SimpleAdd.asm

File View Run Help

output: Slow Fast Animate: No animation View: Script Format: Decimal

ROM	Asm
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	

PC 60

RAM	
0	257
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0

A 0

```
// by Nisan and Schocken, MIT Press.
// File name: projects/07/StackArithmetic/SimpleAdd/SimpleAdd.tst

load SimpleAdd.asm,
output-file SimpleAdd.out,
compare-to SimpleAdd.cmp,
output-list RAM[0]%D2.6.2 RAM[256]%D2.6.2;

set RAM[0] 256, // initializes the stack pointer

repeat 60 { // enough cycles to complete the execution
ticktock;
}

output; // the stack pointer and the stack base
```

D 8

ALU

D Input: 8

M/A Input: 256

ALU output: 257

End of script - Comparison ended successfully

q2) StackTest.vm

CPU Emulator (2.5) - D:\HarikrishnaPillai_AM.EN.U4AIE21034\nand2tetris\projects\07\StackArithmetic\StackTest\StackTest.asm

File View Run Help

File View Run Help

Slow Fast No animation Script Decimal

ROM

Asm

1019
1020
1021
1022
1023
1024
1025
1026
1027
1028
1029
1030
1031
1032
1033
1034
1035
1036
1037
1038
1039
1040
1041
1042
1043
1044
1045
1046
1047

RAM

0 266
1 0
2 0
3 0
4 0
5 0
6 0
7 0
8 0
9 0
10 0
11 0
12 0
13 0
14 0
15 0
16 0
17 0
18 0
19 0
20 0
21 0
22 0
23 0
24 0
25 0
26 0
27 0
28 0

compare-to StackTest.cmp,
output-list RAM[0]%D2.6.2
RAM[256]%D2.6.2 RAM[257]%D2.6.2 RAM[258]%D2.6.2 RAM[259]%D2.6.2

set RAM[0] 256, // initializes the stack pointer

repeat 1000 { // enough cycles to complete the execution
ticktock;
}

// outputs the stack pointer (RAM[0]) and
// the stack contents: RAM[256]-RAM[265]
output;
output-list RAM[261]%D2.6.2 RAM[262]%D2.6.2 RAM[263]%D2.6.2 RAM[264]%D2.6.2
output;

D 82

ALU
D Input: 82
M/A Input: 265
ALU output: 266

PC 1033

A 0

End of script - Comparison ended successfully