

Zachary Dubinsky

CSC-270-01

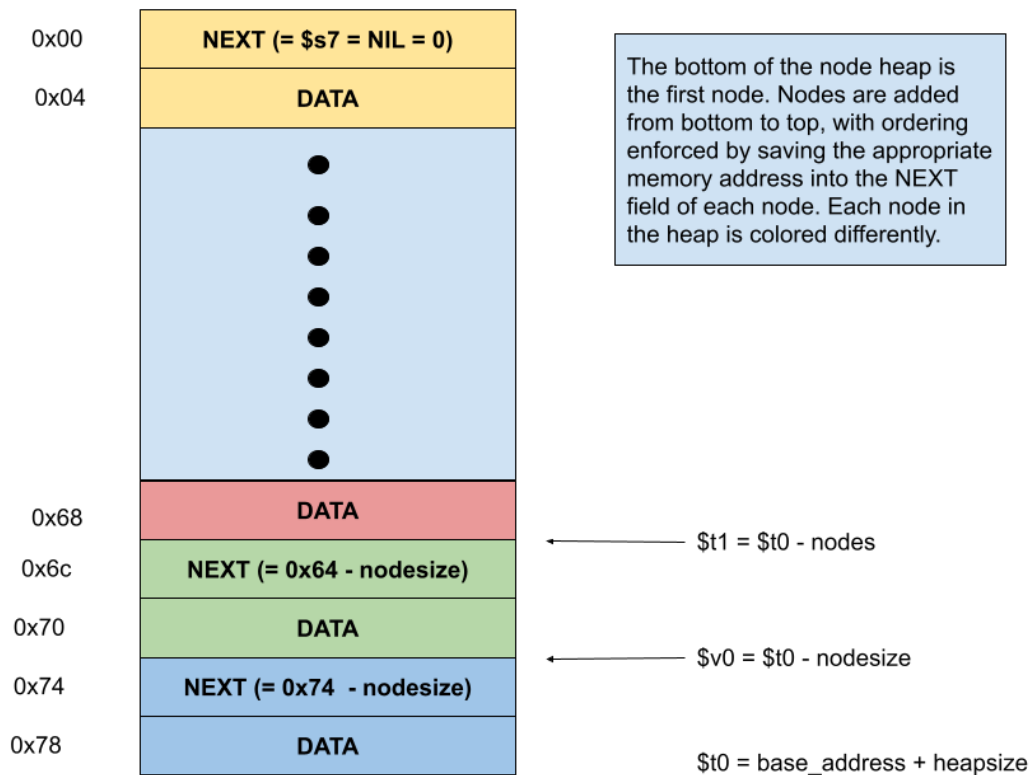
3/1/22

Prof. Reiffel

Lab 7

I affirm that all included work is my own in accordance with the class syllabus and the Union College Honor Code. [Signed: Zachary Dubinsky, 3/1/22]

1. Diagram of mknodes



- Examples of successful operation: I have included screenshots of two tests. The first image shows the input word as provided in the assembly program. The second is the contents of data memory before the program runs, and the third is the contents of data memory following execution. The final image is what my program prints to the console.

input: .word 5, 2, -1, 6, 32, -1992, 93847, 23
inp_end:

```
User data segment [10000000]..[10040000]
[10000000]..[1000ffff] 00000000
[10010000] 0000002c 00000005 00000002 ffffffff
[10010010] 00000006 00000020 ffffff838 00016e97
[10010020] 00000017 00000000 00000000 00000000
[10010030]..[1001009b] 00000000
[1001009c] 4f002020
[100100a0] 6f207475 72662066 6e206565 7365646f
[100100b0] 6574203b 6e696d72 6e697461 72702067
[100100c0] 6172676f 00000a6d 00000000 00000000
[100100d0]..[1003ffff] 00000000
```

```
User data segment [10000000]..[10040000]
[10000000]..[1000ffff] 00000000
[10010000] 0000002c 00000005 00000002 ffffffff
[10010010] 00000006 00000020 ffffff838 00016e97
[10010020] 00000017 00000000 00000000 10010024
[10010030] 00000000 1001002c 00000000 10010034
[10010040] 00000000 1001003c 00000000 10010044
[10010050] 00000000 1001004c 00000000 10010074
[10010060] 00000017 00000000 00016e97 10010084
[10010070] ffffff838 10010064 00000020 1001005c
[10010080] 00000006 1001008c ffffffff 10010094
[10010090] 00000002 1001007c 00000005 4f002020
[100100a0] 6f207475 72662066 6e206565 7365646f
[100100b0] 6574203b 6e696d72 6e697461 72702067
[100100c0] 6172676f 00000a6d 00000000 00000000
[100100d0]..[1003ffff] 00000000
```

```
-1992,-1,2,5,6,23,32,93847,|
```

input: .word 17, 29, -3, 2, 5, 2, 3994, 10, -1|
inp_end:

```
User data segment [10000000]..[10040000]
[10000000]..[1000ffff] 00000000
[10010000] 0000002c 00000011 0000001d ffffffff
[10010010] 00000002 00000005 00000002 00000f9a
[10010020] 0000000a ffffffff 00000000 00000000
[10010030]..[1001009f] 00000000
[100100a0] 4f002020 6f207475 72662066 6e206565
[100100b0] 7365646f 6574203b 6e696d72 6e697461
[100100c0] 72702067 6172676f 00000a6d 00000000
[100100d0]..[1003ffff] 00000000
```

```
User data segment [10000000]..[10040000]
[10000000]..[1000ffff] 00000000
[10010000] 0000002c 00000011 0000001d ffffffff
[10010010] 00000002 00000005 00000002 00000f9a
[10010020] 0000000a ffffffff 00000000 00000000
[10010030] 10010028 00000000 10010030 00000000
[10010040] 10010038 00000000 10010040 00000000
[10010050] 10010048 00000000 10010080 ffffffff
[10010060] 10010098 0000000a 00000000 00000f9a
[10010070] 10010078 00000002 10010060 00000005
[10010080] 10010070 00000002 10010058 ffffffff
[10010090] 10010068 0000001d 10010090 00000011
[100100a0] 4f002020 6f207475 72662066 6e206565
[100100b0] 7365646f 6574203b 6e696d72 6e697461
[100100c0] 72702067 6172676f 00000a6d 00000000
[100100d0]..[1003ffff] 00000000
```

-3,-1,2,2,5,10,17,29,3994,