

# Lab 11

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I pledge my honor that I have abided by the Stevens Honor System.

Input '582' gets stored in X0

```
ubuntu@primary:~/shared/382/lab11$ qemu-aarch64 -L /usr/aarch64-linux-gnu/ -g 1234 a.out
582
```

```
Register group: general
x0      0x246      582      x1      0x410104      4260100
x2      0x1        1       x3      0x0         0
x4      0x0        0       x5      0x0         0
x6      0x0        0       x7      0x0         0
x8      0x3f       63      x9      0x0         0
x10     0x0        0       x11     0x0         0
x12     0x0        0       x13     0x0         0
x14     0x0        0       x15     0xa        10
x16     0x0        0       x17     0x0         0

labv2.s
27      SVC      0 // call read
28      BL       loop // branch to loop
29
30      exit: //exit label
31      MOV      X0, X20 // set to final call
32      //regular exit calls
> 33      MOV      X0, 0 //status = 0
34      MOV      X8, 93 //system call to exit is #93
35      SVC      0 //calls the system to exit
36

remote Thread 1.2646 In: exit
read () at labv2.s:27
=> 0x0000000004000ec <read+0>: 01 00 00 d4      svc      #0x0
loop () at labv2.s:7
=> 0x0000000004000b0 <loop+0>: 2f 00 40 f9      ldr      x15, [x1]
=> 0x0000000004000b4 <loop+4>: ff 29 00 f1      cmp      x15, #0xa
=> 0x0000000004000b8 <loop+8>: 4c 00 00 54      b.gt     0x4000c0 <loopContinue>
=> 0x0000000004000bc <loop+12>: 0e 00 00 14      b        0x4000f4 <exit>
exit () at labv2.s:31
=> 0x0000000004000f4 <exit+0>: e0 03 14 aa      mov      x0, x20
=> 0x0000000004000f8 <exit+4>: 00 00 80 d2      mov      x0, #0x0
(gdb) // #0
```

Program runs without errors

```
ubuntu@primary:~/shared/382/lab11$ qemu-aarch64 a.out
3
ubuntu@primary:~/shared/382/lab11$
```