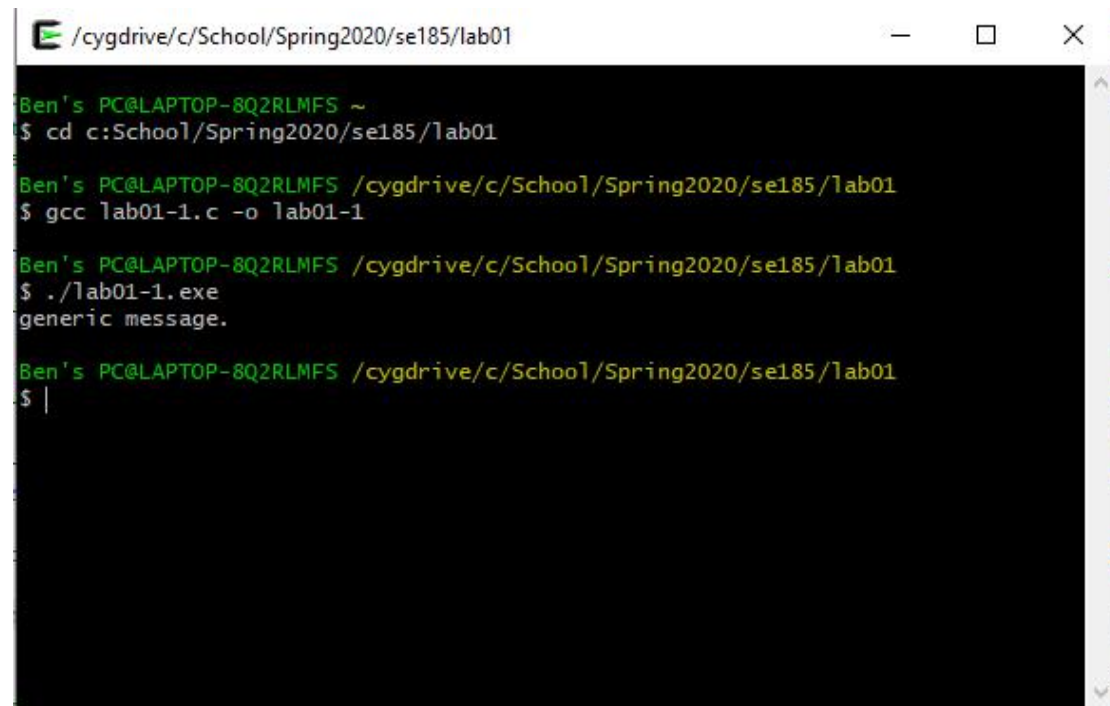


Benjamin Rayborn

SE 185 Section 1

Lab 1 Report

Part 1:



```
Ben's PC@LAPTOP-8Q2RLMFS ~  
$ cd c:/School/Spring2020/se185/lab01  
  
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01  
$ gcc lab01-1.c -o lab01-1  
  
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01  
$ ./lab01-1.exe  
generic message.  
  
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01  
$ |
```

Part 2:

```
/cygdrive/c/School/Spring2020/se185/lab01
77
brayborn

Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ gcc lab01-input.c -o lab01-input

Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ ./lab01-input.exe

Value before input: 0

Type a number: 77
Type your NetID: brayborn

Your input was 77 and your ISU email is brayborn@iastate.edu
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ ./lab01-output > mydata.txt

Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ ./lab01-input < mydata.txt

Value before input: 0

Type a number: Type your NetID:
Your input was 77 and your ISU email is brayborn@iastate.edu
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ ./lab01-output | ./lab01-input

Value before input: 0

Type a number: Type your NetID:
Your input was 77 and your ISU email is brayborn@iastate.edu
Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ ./lab01-output | ./lab01-input > NETID.txt

Ben's PC@LAPTOP-8Q2RLMFS /cygdrive/c/School/Spring2020/se185/lab01
$ |
```

Part 3:

Decimal	Binary	Octal	Hexadecimal
1	1	1	1
10	1010	12	A
42	101010	52	2A
255	11111111	377	FF
15	1111	17	F
223	11011111	337	DF
129	10000001	201	81
147	10010011	223	93
63	111111	77	3F
18	10010	22	12

$$1 = 1$$

$$10 = 8 + 2 = 1000 + 10 = 1010$$

$$42 = 32 + 8 + 2 = 100000 + 1000 + 10 = 101010$$

$$255 = 128 + 64 + 32 + 16 + 8 + 4 + 2 + 1 = 10000000 + 1000000 + 100000 + 10000 + 1000 + 100 + 10 + 1 = 11111111$$

$$1 = 1$$

$$10 = 9$$

$$42 = (2 \times 16) + 10 = 2a$$

$$255 = (15 \times 16) + 15 = 4f$$

$$1 = 1$$

$$10 = 8 + 2 = 10 + 2 = 12$$

$$42 = 40 + 2 = 5 \times 8' + 2 \times 8' = 52$$

$$255 = 3 \times 8' + 7 \times 8' + 7 \times 8' = 377$$

$$F = 15$$

$$DF = (13 \times 16) + 15 = 223$$

$$81 = (8 \times 16) + 1 = 129$$

$$15 = 1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 1111$$

$$223 = 1 \times 2^7 + 1 \times 2^6 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 1101111$$

$$129 = 1 \times 2^7 + 1 \times 2^6 = 10000001$$

$$15 = 1 \times 8' + 7 \times 8' = 17$$

$$223 = 3 \times 8' + 2 \times 8' + 7 \times 8' = 337$$

$$129 = 2 \times 8' + 1 \times 8' = 201$$

$$10010011 = 1 \times 2^7 + 1 \times 2^4 + 1 \times 2^1 + 1 \times 2^0 = 147$$

$$111111 = 1 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 63$$

$$147 = 2 \times 8^2 + 2 \times 8' + 3 \times 8^0 = 223$$

$$63 = 7 \times 8' + 7 \times 8^0 = 77$$

$$147 = 9 \times 16' + 3 \times 16^0 = 93$$

$$63 = 3 \times 16' + 15 \times 16^0 = 3f$$

--	--

$$22 = 2 \times 8' + 2 \times 8'' = 18$$

$$18 = 1 \times 2'' + 1 \times 2' = 10010$$

$$18 = 1 \times 16' + 2 \times 16'' = 12$$