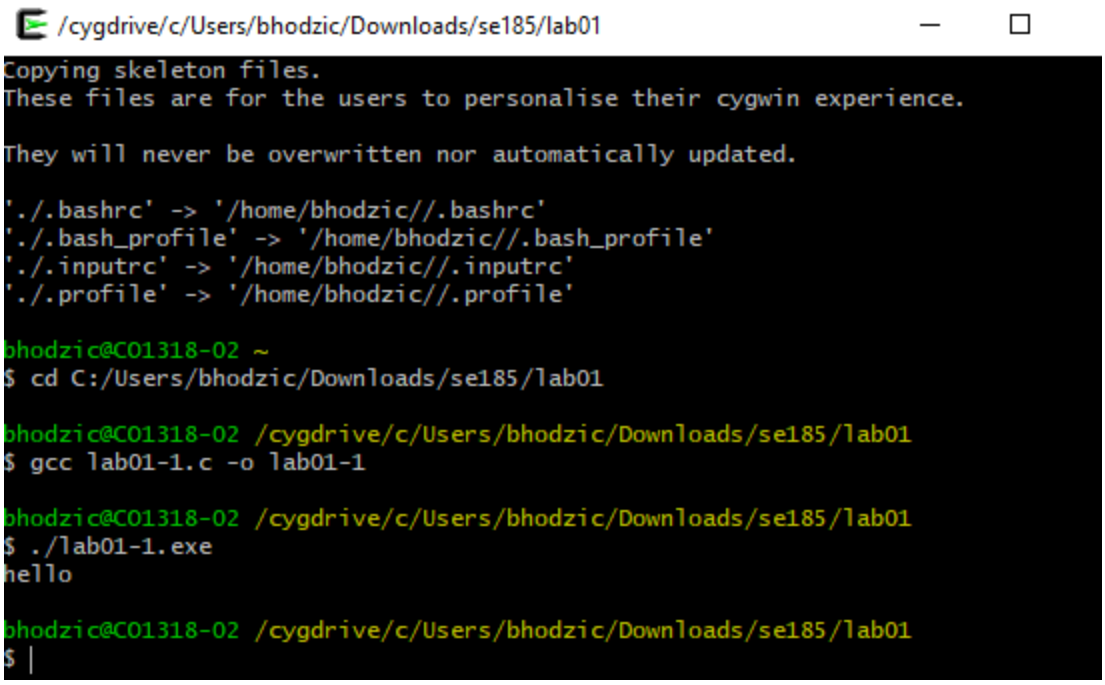
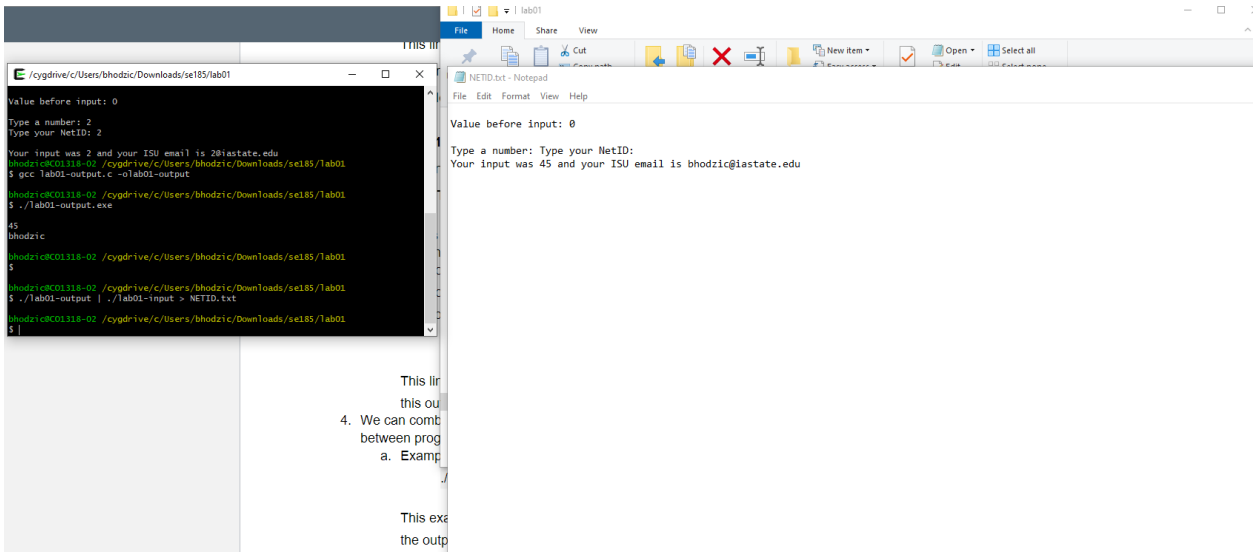

/cygdrive/c/Users/bhodzic/Downloads/se185/lab01
Copying skeleton files.
These files are for the users to personalise their cygwin experience.
They will never be overwritten nor automatically updated.
'./.bashrc' -> '/home/bhodzic//.bashrc'
'./.bash_profile' -> '/home/bhodzic//.bash_profile'
'./.inputrc' -> '/home/bhodzic//.inputrc'
'./.profile' -> '/home/bhodzic//.profile'
bhodzic@CO1318-02 ~
$ cd C:/Users/bhodzic/Downloads/se185/lab01
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$ gcc lab01-1.c -o lab01-1
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$ ./lab01-1.exe
hello
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$


/cygdrive/c/Users/bhodzic/Downloads/se185/lab01
Value before input: 0
Type a number: 2
Type your NetID: 2
Your input was 2 and your ISU email is 2@iastate.edu
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$ gcc lab01-output.c -olab01-output
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$ ./lab01-output.exe
45
bhodzic
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$ ./lab01-output | ./lab01-input > NETID.txt
bhodzic@CO1318-02 /cygdrive/c/Users/bhodzic/Downloads/se185/lab01
$
lab01
File Home Share View
NETID.txt - Notepad
File Edit Format View Help
Value before input: 0
Type a number: Type your NetID:
Your input was 45 and your ISU email is bhodzic@iastate.edu

1. Decimal [redacted]

a. Decimal: 1

Hexadecimal: 1 1/16 = 0 R: 1 1

Octal: 1 1/8 = 0 R: 1 1

Binary: 1 1/2 = 0 R: 1 1

B. Decimal: 10

Binary: 1010 10/2 = 5 R: 0 5/2 2 R: 1 2/2 = 1

1/2 = 0 R: 1

octal: 12 10/8 = 1 R: 2 1/8 = 0 R: 1

Hexadecimal: A 10/16 = 0 R: 10

C. Decimal: 42

Binary: 101010 42/2 = 21 R: 0 21/2 = 10 R: 1

10/2 = 5 R: 0 5/2 = 2 R: 1 2/2 = 1

1/2 = 0 R: 1

Octal: 52 42/8 = 5 R: 2 5/8 = 0 R: 5

Hexadecimal: 2A 42/16 2 R: 10 2/16 = 0 R:

D. Decimal: 255

Binary: 11111111 255/2 = 127 R: 1 127/2 = 63

63/2 = 31 R: 1 31/2 = 15 R: 1

15/2 = 7 R: 1 7/2 = 3 R: 1

3/2 = 1 R: 1 1/2 = 0 R: 1

Octal: 377 255/8 = 31 R: 7 3/8 = 3 R:

3/8 = 0 R: 3

Hexadecimal: FF 255/16 = 15 R: 15 15/16 = 0

2. A. Hexadecimal : F $15 * 16^0 = 15$
Decimal : 15
Binary : 1111 15/2 = 7 R:1 7/2 = 3 R:1
~~Octal~~ 3/2 = 1 R:1 1/2 = 0 R:1
Octal : 17 15/8 = 1 R:7 1/8 = 0 R:1

B. Hexadecimal : DF $13 * 16^1$ $15 * 16^0$
Decimal : 223
Binary : 11011111 223/2 = 111 R:1 111/2 = 55 R:1
55/2 = 27 R:1 27/2 = 13 R:1
13/2 = 6 R:1 6/2 = 3 R:0
3/2 = 1 R:1 1/2 = 0 R:1
Octal : 337 223/8 = 27 R:7 27/8 = 3 R:3
3/8 = 0 R:3

C. Hexadecimal : 81
Decimal : 129 $8 * 16^1 + 1 * 16^0$
Binary : 10000001 129/2 = 64 R:1 64/2 = 32 R:0
32/2 = 16 R:0 16/2 = 8 R:0
8/2 = 4 R:0 4/2 = 2 R:0
2/2 = 1 R:0 1/2 = 0 R:1
Octal : 201 129/8 = 16 R:1 16/8 = 2 R:0
2/8 = 0 R:2

3.A. Binary: 10010011
Decimal: 147

$1\times2^7 + 0\times2^6 + 0\times2^5 + 1\times2^4 + 0\times2^3 + 0\times2^2 + 1\times2^1 + 1\times2^0$

Octal: 223

147/8 = 18 R:3 18/8 = 2 R:2
2/8 = 0 R:2

Hexadecimal: 93

147/16 = 9 R:3 9/16 = 0 R:9

B. Binary: 111111
Decimal: 63

$1\times2^5 \quad 1\times2^4 \quad 1\times2^3 \quad 1\times2^2 \quad 1\times2^1 \quad 1\times2^0$

Octal: 77

63/8 7 R:7 7/8 = 0 R:7

Hexadecimal: 3F

63/16 = 3 R:15 3/16 = 0 R:3

4. Octal: 22
Decimal: 18

$2\times8^1 + 2\times8^0$
$16 + 2$

Binary: 10010

18/2 = 9 R:0 9/2 = 4 R:1
4/2 = 2 R:0 2/2 = 1 R:0
1/2 = 0 R:1

Hexadecimal: 12

18/16 = 1 R:2 1/16 = 0 R:1