

COMP2130 LAB 3 – Input Output

Instructions: You should create a zip file with the results of this lab. You should email this file to: comp2130.2015@gmail.com. Please submit this lab at the end of your class. The subject of the email must be: LAB3

(1.)

Write out the file contents for `out.txt` as produced by the following code. Give specific byte values. How many total bytes will the file contain at the end of execution?

```
#include <stdio.h>
main()
{
    FILE *fpt;
    int x;
    fpt=fopen("out.txt","w");
    for (x=0; x<15; x+=2)
        fprintf(fpt,"%2d ",x);
    fclose(fpt);
}
```

(2.)

Consider the variable declaration below. Write code that opens a file for output and uses a single line of code to write out all of the declared variable(s).

```
struct inventory {
    char name[30];
    int count;
    float price;
} log[75];
```

(3.)

Write a program that reads a text file and reports the total count of words of each length. A word is defined as any contiguous set of alphanumeric characters, including symbols. For example, in the current sentence there are 10 words. The filename should be given at the command line as an argument. The file should be read one word at a time. A count should be kept for how many words have a given length. For example, the word "frog" is 4 bytes in length; the word "turtle" is 6 bytes in length. The program should report the total word counts of all lengths between 3 and 15 bytes. Words with lengths outside that range should not be counted.

(4.)

Write a program that will display text on any terminal. The program should prompt the user for the name of the device file for the terminal on which to display output, as well the output to display. It should then perform the necessary I/O operations. This process should repeat until the user decides to exit the program.

THE END