**ECE 1111: Engineering Computation I**

**Homework No. 4: Basic Logical Operators**

**Goal:** Demonstrate that you understand how to use basic logical expressions in combination with simple I/O operations.

**Description:** Create a file containing ASCII text. For example:

**nedc\_000\_[1]: more v.txt**

**# an example file**

**#**

**this is a sample file**

**27.0**

**another line of text**

**3**

**yet another line of text**

The tasks in this homework assignment are:

1. Write a program that reads any file and prints the line number and the contents of each line.
2. If a line contains a number between -100 and 100, print "line number: \*\*\*> the value is" followed by the value rather than just the number. Use a format that contains 4 decimal places. For example, your output could look like this:

**3: \*\*\*> the value is 27.0000**

1. If the line contains a number between 0 and 100, and it appears on the third line in the file, print "line number: \*\*> this is your lucky day!" (in addition to the output from no. 2).
2. If a line contains a negative number, print "line number: ==> found a negative number: <value>" after you print the output for no. 2. Use a format that contains 4 decimal places.
3. If the first character of the line is a "#", do not print the line. If the line is blank, ignore it. Google search how to implement this logic.

Submit your code into the directory:

**/data/courses/ece\_1111/current/homework/hw\_04/lastname\_firstname**

in a file named *myprog.cc*. This program must compile with a make file. The program must run using the command “*myprog.exe <file.txt>*” where “*<file.txt>*” can be any text file specified by the user.

Your grade will depend entirely on the degree to which you meet the above requirements and the extent to which your code is properly commented and documented.