Name:

Do your work in this directory:

/data/courses/ece\_1111/current/quizzes/qu\_05/lastname\_firstname/p01

and create a file named myprog.cc that contains your C source code. *Your executable must be named joe.exe.* You must use a make file and header file as we have done for all our C programs. When I type “make clean”, your object and executable files should be removed. When I type “make”, *joe.exe* should be created from *myprog.cc*.

**Task:** Write a C program that reads a text file line by line and finds the minimal numeric value in the file based on the following logic function:

* If *c* is a lowercase or uppercase alphabetic character, use its decimal value as the value for that line (e.g., the character “*a*” gets a value of 97).
* If *c* is a non-alphabetic character, the score for that character is the square root of the decimal value (e.g., the character “*<*” has a decimal value of 60, so its corresponding value is $\sqrt{60}$.

You can assume each line has only one character.

The interface to your program must be the following:

ece\_000[1]: joe.exe temp.text

the minimum entry for file temp.txt is $ and was found on line ###.

where “$” indicates the character and “###” is the line number assuming the first line in the file is line number 1.

For example, suppose your test file contains this data:

ece\_000[1]: cat temp.text

b

c

a

Your program would determine that “a” is the minimal numeric value, and would print out:

ece\_000[1]: joe.exe temp.text

the minimum entry for file temp.txt is a and was found on line 3.

Suppose your test file contains this data:

ece\_000[1]: cat temp.text

}

L

{

~

Your program would determine that “{” is the minimal numeric value, and would print out:

ece\_000[1]: joe.exe temp.text

the minimum entry for file temp.txt is { and was found on line 3.

Your program should work for any size data file.