Assignment 10: File Input, String and char Processing

Learning Objectives

Upon completion of this assignment, the student shall be able to:

- Use the Scanner class to read data from a text file.

Evaluation

This assignment shall be graded.

- A rubric has been created in Canvas that identifies the criteria that shall be used to evaluate your assignment submission.

Description

Follow the steps below to complete this assignment.

1. Develop a solution that adheres to the following requirements.

    a. Open the file `A Dream Within a Dream.txt` using the Scanner class. This file contains the Edgar Allen Poe poem, published in 1850.

    b. Display the following information about this text file.
        i. A count representing the frequency in which each letter is found in this file. Note that these counts represent the total number of lowercase and uppercase letters found for each letter of the alphabet. That is, the counting of each letter is *not* case sensitive.
        ii. A count representing the frequency in which each punctuation character is found in this file.
        iii. A count representing the number of space characters found in this file.
        iv. A count representing the number of lines of text found in this file.

2. Submit all of your Java source code files in a **zip file**.

To help you test your solution, the output shown on page 2 was produced from executing the instructor's solution.

```
Number of lines in A Dream Within a Dream.txt is 25
Letter frequencies are as follows:
Char  Freq
t     41
a     44
k     2
e     62
h     34
i     37
s     27
u     9
p     10
o     39
n     34
b     4
r     28
w     21
d     20
g     12
f     10
m     18
y     11
c     5
l     13
v     5

Punctuation & space frequencies are as follows:
Char  Freq
      123
!     5
,     9
-     4
;     1
?     4
.     1
```