Course: CS 101

Assignment: Program 4 algorithm

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Problem:

A recent study claims that English text is still readable, with almost

no loss of comprehension, even if the letters of a word are scrambled, as

long as the first and last letters of each word are kept in the same position,

along with sentence punctuation and any apostrophes in the word.

For example, the above sentence, scrambled while keeping the first and last

letters in place, may look like this:

A recent sudty calmis that Ensgilh text is stlil rlbaeade, with amsolt no lsos

of cpenoiromsehn, even if the leertts of a wrod are sacmblred, as long as the

fsirt and lsat lrttees of ecah wrod are kpet in the smae pistooin, anlog with

sncenete pottcuiuann and any asoherppots in the word.

Algorithm:

1) Prompt the user for the path to a text file

2) If the file path is valid open the file in read only mode

3) Throw an exception message if the user entered an invalid file path and prompt

the user again to enter a valid file path

4) Use a function to read the lines in the text and split the sentences into   
 individual words

5) Via a function, break the words into individual letters, slice and

shuffle all letters except the first and last characters

6) Create a function to handle newline characters, break the proceeding word(s)

into individual letters, slice and shuffle all letters except the first and last

7) Create a function to handle a period at the end of a sentence. Break the

proceeding word(s) into individual letters slice and shuffle all letters except the

first and last

8) Create a function to handle a comma at the end of a word. Break the proceeding

word(s) into individual letters, slice and shuffle all the letters except the first and

last

9) Call a main function to check to see if words are greater than three characters,

and contain a new line character, a period or a comma. Base on what's found call

the appropriate function above(i.e. 6-8) to shuffle the letters appropriately

Print the result to the screen and suppress the default newline behavior of the

print command