**Lab 5 - Strings and for-Loops**

**(Part II)**

**Note:** This part of Lab 5 is for you to complete using Notepad++ and Anaconda Prompt.

**Q1: Count Articles**

In English, the words “a”, “an” and “the” are called “articles”. In this question we’ll count the number of articles in a piece of text.

**Note:** For this question, you are NOT allowed to use the count() method of string.

1. Write a function called count\_a that takes in a piece of text (as a string) and returns the number of times the word “a” occurs in the text. You do not need to handle uppercase “A”. You can assume that each time the word “a” occurs, both its previous character and its next character are a space.

For example, count\_a("I have a room with a window, a desk and a chair.") should return 4.

1. Write a function called count\_an that takes in a piece of text (as a string) and returns the number of times the word “an” occurs in the text. You do not need to handle uppercase “An”. You can assume that each time the word “an” occurs, its previous character and its next character are both a space.

For example, count\_an("Every day I have an egg, an apple and a banana for breakfast.") should return 2.

1. Write a function called count\_the that takes in a piece of text (as a string) and returns the number of times the word “the” occurs in the text. You do not need to handle uppercase “The”. You can assume that each time the word “the” occurs, its previous character and its next character are both a space.

For example, count\_the("I like the dog under the tree over there.") should return 2.

**Q2: Fibonacci Numbers**

[\* challenging \*]

Refer to the following link to understand Fibonacci numbers:

<https://en.wikipedia.org/wiki/Fibonacci_number>

Essentially, it is a sequence of numbers where each number is equal to the sum of its previous two numbers in the sequence.

Write a function called display\_fibonacci(). This function takes in an integer n. It **prints out** the first n Fibonacci numbers, starting from 1. The function doesn’t return anything.

For example, display\_fibonacci(5) prints out the following output:

1 1 2 3 5

display\_fibonacci(10) prints out the following output:

1 1 2 3 5 8 13 21 34 55