Final Project -- Part B
Implementation

CSCE 240 -- Fall 2016

Objectives

- Learn how to implement inheritance using C++.
- Improve your skills in OOP in C++
- Utilize a requirements document to build software
- Properly test your program
- Measure execution time of your algorithm

Description

Your job is to create a program that will do rudimentary next generation sequence assembly. In addition, the program that you create will be accompanied by a requirements document (from Part A) that will outline the functionality, structure and validity of your system.

Background

Specific Requirements

- Given an input file of genetic sequences (strings containing ‘A’, ‘G’, ‘T’, or ‘C’) your program should assemble these sequences into one contiguous sequence based on overlapping regions.
- You should record the execution time of your program using the 3 input files provided.
- Along with your program a short report should be submitted that contains the following information:
    - Challenges you faced in completing this assignment
    - Any revisions to your requirements document
    - Time complexity of your program (execution times)
- Must use inheritance in a meaningful way
- Must incorporate your String class from Project 4-7.
- Cannot use the string class included within C++
- Cannot use the vector class included within C++.