CS1XC3 - Computer Science Practice and Experience: Development Basics
Final Assignment

Due Date: 12th April, 2022

You are given two starter code files dotprod.zip and course.zip in the Assignment folder in the Avenue to Learn course.

Question 1:

When you unzip course.zip you will find a C program with libraries for creating courses with students. The main.c file is used to demonstrate these libraries. Document this code using Doxygen comments. Be sure to document all files, functions (parameters, return values), and typedef struct definitions. Add additional regular comments to the function bodies where appropriate to make the code easier to read. As discussed in - class, not every line should be commented, but brief descriptive comments documenting what a section of code is doing (e.g. a loop) or interesting features (e.g. why are both calloc and realloc being used in a function) is important. Generate the Doxygen html documentation. Zip both your modified files and the Doxygen html documentation in a file called course.zip.

Question 2:

When you unzip dotprod.zip you will find a C program that conducts a dot product operation 1 billion times using a standard dot product algorithm. Use gcc and gprof on the pascal server to profile the performance of the current program. Save the results provided by gprof to a file called prof.txt. Zip the dotprod.c and prof.txt files together into a file called dotprod.zip.

Question 3:

Create a GitHub account. Using the following tutorial, create a public repository named CS1XC3
https://docs.github.com/en/github/getting-started-with-github/quickstart/create-a-repo

Use the repository for storing the files from Question 1 and Question 2 above. Once added, you should also add another new file called name.txt and then the file should be modified to contain your name in the first line. You do not have to provide any other information. Provide a link to your GitHub repository in a plaintext file called final_as_repos.txt and upload this text file on avenue.
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