Assignment 2: Feature Implementation and Maintenance

Now that you have become accustomed to the codebase through the trial by fire that is testing and debugging it is now the appropriate time for you to implement a couple features yourself! You will continue developing in the same forked repository as in assignment 1. For this assignment you are required to make a **MINIMUM of 5 substantial commits** within your repository, please see assignment 0 to review the definition of a 'substantial commit'.

0. Choosing to Use Reference Solutions or Your Own Code

If you do not feel comfortable using your own solutions or submitted the alternative assignment please see courseworks for the updated files, just replace or copy and paste the contents into the repository. Make this decision prior to completing this assignment.

1. Reminder of Required Documentation

Just as a reminder that you need to have "honesty.txt" and "citations.txt" in the root of your repository as mentioned in assignment 1, failure to include "honesty.txt" will result in an immediate 0 on the assignment. Failure to include "citations.txt" will be assumed to mean that you consulted no outside sources during completion of this assignment.

2. Feature A Implementation

You are responsible for implementing the /retrieveCourses endpoint, its job is to return the String representation of all the courses with the specified course code. For example if there was a course in the CS dept with the code 1004 as well as courses in Physics and Economics then you should return information about those respective courses in a way that is readable, you should use existing code to ease the process if possible and your code must be robust.

3. Feature B Implementation

You are responsible for implementing the /enrollStudentInCourse endpoint, its job is to attempt to enroll a student in a course specified by the department id as well as the course code. You should return an appropriate message for what happens in the code you write, once again it is recommended to use existing code to ease the process if possible and your code must be robust.

4. Maintaining the Codebase

The codebase must still be maintained even after writing new features for the code. For the features you implemented, you must write documentation and additional tests so that you still meet the checkstyle requirements as specified in assignment 1, as well as maintaining at least 55% branch coverage (even if you got >= 55% without writing new tests, you need to write new tests)

5. Submission Details:

On Courseworks under "Individual Assignment #2" you will submit a link to your repository, remember that if you made your repository private then you must make all members of the Teaching Staff contributors on the repo so we may grade you. At the root level of the repository you must have the honesty.txt file described in section 1 as well as your citations.txt file which contains the links and descriptions of all the resources you used during this assignment as a reminder ***you are not allowed*** to work with any other student on these individual assignments.

This assignment is due at **11:59 pm on September 20, 2024** If for some reason you need to submit the assignment late, that is fine, but just know in the real world deadlines are strictly enforced and there are consequences that happen when those deadlines are missed as such the structure for late individual assignment submissions is as follows:

-10% of score day after deadline
-20% of score 2 days after deadline
-30% of score 3 days after deadline

0 if received after 11:59pm on September 23, 2024