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BCS 370

Team #6

Individual Writeup

1. For the design portion of the project, I suggested the use of a vector for the data structure. I suggested this because vectors support all operations necessary for the homework management system to properly function. It is able to be defined with a reference data type, which is homework assignment in our project. Another benefit of using a vector is that it is dynamic and a size does not need to be declared. Assignments can keep being added to it as needed.
2. For the coding portion of the project, I coded the homeworkAssignment class, which defined member variables and methods necessary for each homework assignment object. I also coded the add assignment method and search assignment by due date method.
3. The homeworkAssignment class I coded consists of six member variables that define different attributes of each homework assignment object. These member variables define the assignment’s course, due date, estimated completion time, homework number, progress status, and completion status. The parameterized constructor of this class takes in all member variables except for the completion status which is a bool and is initially set to false. Get and set methods are defined to easily access and modify the member variables of each assignment if needed. The addAssignment method I coded for the homeworkManagementSystem class uses the push\_back method from the vector library to add an assignment to the end of the vector in the system. The searchDueDate method I coded for the homeworkManagementSystem class takes in an int as its parameter and uses a for loop to traverse the vector. A nested if statement in the loop checks each assignment to see if it is due in the same number of days as the int that was input to the method. The course name and homework number of each assignment due in the same number of days as the int that was input to the method is output to the console for the user to view.