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CS 300

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Project One Milestone One

//Vector - Milestone 1

void loadCourses(Vector<Course> listOfCourses, String fileName){

**try to open the file with name fileName**

**if the file cannot be opened**

**print error message**

**for every line in the file**

**separate the lines using commas**

**if the line has fewer than two pieces**

**print error in format**

**move to the next line**

**create a new Course**

**set the course number to the first piece**

**set the course name to the second piece**

**for every new piece:**

**add it to the list of prerequisites for this course**

**add this course to listOfCourses**

**close the file**

}

void validateCourses(Vector<Course> listOfCourses) {

**for each course in listOfCourses:**

**for each prerequisite in the course's list of prerequisites:**

**if this prerequisite is not found in listOfCourses:**

**print error message of prerequisite not included in this course**

}

void searchCourse(Vector<Course> courses, String courseNumber) {

**for all courses**

**if the course is the same as courseNumber**

**print out the course information**

**for each prerequisite of the course**

**print the prerequisite course information**

}

//Hash Table - Milestone 2

void loadCourses(HashTable<Course> &courseTable, String fileName) {

**Open the file with the given name**

**if the file cannot be retrieved:**

**print an error message of not retrieving the file.**

**for every line in the file:**

**separate each line with commas**

**If the line is less than two pieces:**

**print a format error message**

**repeat the process for each line**

**create a new Course**

**set the course number to the first piece**

**set the course name to the second piece**

**for each additional piece:**

**add to the list of prerequisites for this course**

**add this course to courseTable with its unique course number**

**close the file**

}

void searchCourse(HashTable<Course> courseTable, String courseNumber) {

**if the course matches the courseNumber from the table:**

**print course information to display**

**if the course has prerequisites attached to it:**

**print the prerequisites**

**for each prerequisite in the course's list of prerequisites:**

**print all associated perquisites**

**else:**

**print an error message with no course found with the search**

}

//Binary Search Tree – Milestone 3

void searchCourse(Vector<Course> courses, String courseNumber) {

**for each course in the courses vector:**

**if the course's search number matches a courseNumber:**

**print the course information**

**if the course has prerequisites:**

**print the Prerequisites along with the course information**

**for each prerequisite in the course's list of prerequisites:**

**print the list of the prerequisites**

**return to the user input screen**

**print error message for the course search if the course number is not found.**

}