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CS 300

3-3 Milestone Pseudocode

**Vector Pseudocode for** **Milestone 3-3.**

**//Create Class for Course**

**class Courses.{**

**string** **variable courseNumber**

**string variable courseName**

vector of prerequisites

**}**

**//Used to validate data looking for formatting errors before course is inserted**

**lineParser(vector<string> oneLine){**

**if oneLine.size() is equal to 2 line has required format and can be added {**

**Create new course**

**Set courseNumber equal to line 0**

**Set courseName equal to line 1**

**Return new course**

**}**

**Else if line size is greater than 2{**

**Create a new course**

**Set courseNumber equal to line 0**

**Set courseName equal to line 1**

**for each additional line until the end of the vector{**

**pushback each line greater than 1 to prerequisite vector**

**}**

**Return new course**

**}**

**Else if line size is less than 2{**

**PRINT There is an error in the file format. Every course must have a course number and course name**

**}}**

**//Insert Course into Vector**

Insert(Course\* courseNumber){

Courses.push\_back(courseNumer);

}

//code for file loading

loadFile(file FileName){

Create vector of Courses

Create vector of strings to hold file data

String variable to hold each line

Open file with Ifstream

while get line finds a next line in the file{

stringstream stst (line)

while stst.good() is to true{

create variable to store substring of line

Use get line to break substring from string using comma delimitator

Push substring to temporary <string> vector

}

Insert temporary line vector to Courses vector using Insert Function and lineParser function

Clear temporary vector

}

}

**//Code to Search for a specific Course**

**Search(courses vector that we are searching and string for courseNumber){**

**Create a new course in the Course vector**

**For each course stored in the courses vector**

**if the courseNumber at variable i comes back equal to courseNumber passed in**

**return the courseNumber at variable i**

**return empty if nothing is found in vector**

**}**

**//Print information for courses and prereqs**

**print (courses vector that we are searching and string for courseNumber){**

**Make a course to hold course that will be returned**

**If the search function returns an empty course**

**Output that the catalog does not contain that course**

**Else**

**Output Number and Name for the course returned by search**

**Forloop for prerequisite in courses’s prerequisite vector**

**Print prerequisite**

**}**