

Marisa Kuyava

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(courseNumber);
}

//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  
  
}
```