Module 6-2: Project One Pseudocode

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CS-300 Analysis and Design

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**Menu Pseudocode:**

vector<string> courses;

**// Function to load data into structure**

void load\_data\_structure()

ifstream file("data.txt");

string course;

while (getline(file, course)) {

courses.push\_back(course);

file.close();

cout << "Data structure loaded." << endl;

**// Function to print Alphanumerically**

void print\_course\_list()

sort(courses.begin(), courses.end());

for (string course : courses) {

cout << course << endl; **// Print sorted list**

**// Function to print course info and prerequisite**

void print\_course() {

string course\_code;

cout << "Enter the course code: "; **// User Input**

cin >> course\_code;

auto it = find(courses.begin(), courses.end(), course\_code);

if (it != courses.end()) {

cout << "Course: " << \*it << endl;

cout << "Prerequisites: "

} else {

cout << "Course not found." << endl;

int main() {

**// Menu Loop**

while (true) {

cout << "Menu" << endl;

cout << "1. Load Data Structure" << endl;

cout << "2. Print Course List" << endl;

cout << "3. Print Course" << endl;

cout << "4. Exit" << endl;

string choice;

cout << "Enter your choice: ";

cin >> choice;

if (choice == "1") {

load\_data\_structure();

} else if (choice == "2") {

print\_course\_list();

} else if (choice == "3") {

print\_course();

} else if (choice == "4") {

break;

} else {

cout << "Invalid choice. Please try again." << endl;

return 0;

**Alphanumeric Order Pseudocode:**

struct Course {

std::string courseCode;

std::string courseName

bool compareCourses(const Course& course1, const Course& course2) **// compare based on course codes**

return course1.courseCode < course2.courseCode

void printCourseList(const std::vector<Course>& courseList) {

for (const Course& course : courseList) {

std::cout << course.courseCode << " - " << course.courseName << std::endl

int main()

std::vector<Course> courseList = { **// Create vector for Course objects**

{"CS101", "Introduction to Computer Science"},

{"CS201", "Data Structures"},

{"CS301", "Algorithms"},

{"CS202", "Operating Systems"},

std::sort(courseList.begin(), courseList.end(), compareCourses); **// Sort list in alphanumeric order**

printCourseList(courseList); // Print sorted course list

return 0;