Object Oriented Programming Project Proposal

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Description of the project: The Advanced Course Selection System is designed to facilitate the process of selecting and enrolling in courses. This system allows users to search for courses by category, view detailed descriptions of courses, and add courses to a shopping cart. Additionally, the system includes a feature to validate course schedules to avoid time conflicts. This project aims to provide an intuitive and user-friendly interface for students to manage their course selections efficiently.

List of Proposed Features

1. **Main Interface with Three Buttons**
   - **Add Course**: Navigate to categories where users can select courses.
   - **View Cart**: Display the courses in the shopping cart, with options to delete or validate the courses.
   - **Search Course**: Search for courses by professor or course name and display the results without the option to select the course.
2. **Add Course Functionality**
   - **Description**: Users can navigate to course categories (e.g., Computer Science, Mathematics, English) and select courses from these categories.
3. **Course Categories**
   - **Description**: Users can select from main course categories. Each category will display related courses for the user to browse and add to the cart.
4. **Search Course Functionality**
   - **Description**: Users can search for courses by professor or course name. The search results will display relevant courses, but users will not be able to add these courses directly from the search results.
5. **View and Manage Cart**
   - **Description**: The cart view allows users to see all the courses they have selected. Users can remove courses from the cart if they change their minds, or validate the schedule to check for time conflicts.
6. **Schedule Validation**
   - **Description**: The system will include a validation function that checks for time conflicts between selected courses. If a conflict is detected, the user will be prompted to resolve the conflict before proceeding.

7. Admin Management of Courses

- **Description**: An admin interface where an administrator can add, update, and delete courses. This ensures that students can only select courses that have been verified and added to the system by an administrator.

8. User Authentication

- **Description**: Implement user authentication to ensure that only authorized users can access the system. Different roles (e.g., student, admin) will have different access levels.

9 . Course Prerequisites

- **Description**: The system will check if the student meets the prerequisites for a course before allowing them to add it to their cart.

10 . Course Credits

- **Description**: Each course will display the number of credits it offers. This helps students manage their workload and ensure they meet credit requirements.

11. Course Ratings

- **Description**: After completing a course, students can rate the course. These ratings will be visible to other students to help them make informed decisions.