

Final Project Proposal – Course Registration System

Team Members:

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Programming Language: Python

Interface: GUI

1. Project Overview

We propose to develop a Course Registration System that allows students to browse available courses, view course details, register for courses, drop courses, and view their current schedule.

2. System Features

The system will support the following core functionalities:

- Student Registration & Login
Students can create an account and log in before accessing system features.
- View Course List
Students can browse all available courses.
- View Course Details
Students can view detailed information of a selected course (course title, instructor, credits, capacity, and number of enrolled students).
- Register for a Course
Students can register for a course if:
 - the course is not full, and
 - the student is not already registered for it.
- Drop a Course
Students can remove a previously registered course.
- View My Courses
Students can view all courses they are currently enrolled in.

3. System Design Notes

- ❖ The system will use in-memory data structures (lists in Python) to store course and registration information.
A database backend will not be used to maintain simplicity.
- ❖ The design will follow object-oriented principles with classes:
 - UI class: MainGUI
 - Entity class: Student, Course, Registration
 - Controller classes: RegistrationSystem(Coordinate the following three managers), CourseCatalog(controller for course), RegistrationManager(controller for registration), AuthenticationService(controller for student)