

FocusMate

Senior Design Team Contract

University of Cincinnati

College of Education, Criminal Justice and Human Services

School of Information Technology

[Team Members Names, 3-5 team members, separated by carriage return]

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Intent

The following contract was written and agreed upon by Vishma Bhattarai. The contract provides expectations, objectives, and results for developing the FocusMate Project.

The contract is effective for all team members participating in the Senior Design Capstone class series in the 2023-2024 academic year.

Senior Design Contract

Project Summary

FocusMate is an AI-enabled study and productivity tool designed to help students manage their academic workload more effectively. This platform serves as a virtual study buddy by offering customized study plans, assignment tracking, and schedule optimization based on the users' feedback. Students' overall productivity and organization, as well as their overall academic success, are enhanced with the integration of intelligent scheduling and reminders and focus-enhancing features within FocusMate.

Problem Statement

Students struggle with time management, procrastination, and balancing multi-faceted academic responsibilities, which in turn normally culminates into stress and lowered performance. More than 80% of college students report feeling overwhelmed by their workload, says the American Psychological Association, 2022, and poor time management is among the leading contributors to academic burnout. Traditional planners and generic apps cannot adjust for individual study patterns or learning habits. A personalized, intelligent system is sorely needed; one which can help students and guide them regarding the ways in which they should manage their schedules and maintain focus.

Solution

FocusMate addresses these challenges by providing an AI-driven study planning and productivity suite tailored to the academic needs of each user. By analyzing user data on class schedules, deadlines, and time availability, the system will create customized study plans and task priorities. It will include some built-in features: a smart calendar, a Pomodoro-style focus timer, a progress tracker, and reminders of upcoming tasks. Through a blend of analytics and artificial intelligence, FocusMate empowers students with better study habits for a more productive workload and allows them to have less stress throughout the semester.

Contact Information

TEAM MEMBER	DEGREE + TRACK TRACK N/A FOR BSCYBER	EMAIL	PHONE NUMBER OR OTHER CONTACT INFO
First Last	BSIT – Software Dev	@mail.uc.edu	111-222-3333
Vishma Bhattacharai	BSCYBER	bhattacharai@mail.uc.edu	513-693-5653

Sponsor Information (if applicable)

NAME	COMPANY	TITLE	EMAIL
First Last	ABC Inc.	Senior VP	seniorvp@abc.inc

Project Source

The inspiration behind FocusMate lies in the challenges students face in managing academic workloads and staying organized. Our team noticed that planners around us lack personalization, resulting in stress and procrastination. The idea was born from a group discussion regarding how students' productivity could be enhanced using technology. We conducted surveys among UC students to gather requirements, then formed our team based on shared interests in AI, software development, and educational tools.

Project Objectives/Goals

The main objective of FocusMate is to enable students to manage time, be organized, and be productive using an AI-powered study planner. It was designed to make the scheduling of academics easier, avoid procrastination, and increase focus while studying.

Objectives:

- Create an intelligent planner that automatically generates personalized study schedules, taking users' input and deadlines into consideration.
- Integrate task tracking, reminders, and progress monitoring to keep users accountable.
- Implement productivity focus tools, like Pomodoro timers and other productivity analytics.
- Create a clean and user-friendly interface that is accessible both on the web and mobile platforms.
- Improve task completion rates for test users by at least 25% against manual scheduling methods.
- Gather user feedback to iteratively improve features and enhance overall usability.

Team Members and Responsibilities

Vishma Bhattarai is the only person who worked on this project. I am in charge of every facet of the project as the only team member, including:

Project planning and design include laying out the system architecture, defining requirements, and producing wireframes.

Front-end development is the process of creating and designing user interfaces for mobile and web platforms.

Creating and maintaining the database, APIs, and AI-driven scheduling logic is known as back-end development.

Testing and Debugging: Verifying system dependability and carrying out functionality tests.

Documentation and Reporting: Writing all of the Senior Design course's written reports, technical documentation, and final presentations.

Project Scope

I will be building FocusMate, a web application that helps students in effective time management and staying organized. It allows users to add their classes, tasks, and deadlines to then make a study plan using AI.

Main Features:

- Create and track tasks and goals
- Smart schedule planner
- Focus timer and reminders
- Simple, easy-to-use interface
- Data storage security
- Not Included:
 - Mobile app version
 - Calendar app integration

The working web version should demonstrate how FocusMate can contribute to the development of good focus and productivity habits among the students.

Quick Project Timeline

[A rough estimate of your project timeline in a tabular format with the following fields:

Task #	Task Name	Duration	Start Date	End Date
1	<i>Project research</i>	1 week	11/01/2025	11/07/2025
2	<i>requirements</i>	1 week	11/08/2025	11/14/2025
3	<i>Front end development</i>	3 weeks	11/15/2025	12/05/2025
4	<i>Back end development and AI implementation</i>	3 weeks	12/06/2025	12/26/2025
5	<i>Integration & Testing</i>	2 weeks	12/27/2025	01/09/2026
6	<i>UI Improvements</i>	1 week	01/10/2026	01/16/2026
7	<i>Documentation/Practice Presentation</i>	1 week	01/17/2026	01/23/2026

Your tasks can be grouped and broken down as needed.]

Technologies Used

FocusMate will be built using the following technologies:

Frontend: HTML, CSS, JavaScript, and React for building a responsive and interactive user interface.

Back-End: Node.js and Express.js for server-side logic and API management.

Database: MongoDB to store user accounts, tasks, and schedules securely.

AI/Logic: JavaScript algorithms for smart task scheduling and personalized study plans.

Tools: Git/GitHub for version control and project management, and VS Code as the development environment.

These technologies are chosen for their flexibility, scalability, and ability to support both web and potential future mobile platforms.

Ethical and Legal Considerations

Since FocusMate will be handling student data, such as assignments and timetables, security and privacy are top concerns. Users will be able to manage or remove their information, and all data will be encrypted. In order to prevent plagiarism, the project will adhere to FERPA laws (U.S. Dept. of Education, 2023) and make sure all code and material are unique. Transparency, data security, and responsible technology use are examples of ethical behaviors.

Team Rules

These guidelines are applicable because this is a personal project:

1. I have to do all the job alone. Any external code or information needs to be referenced.
2. I'll stick to my schedule to complete assignments on time. If something goes wrong, I'll change my plan.
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I'll stick to my schedule to complete assignments on time. If something goes wrong, I'll change my plan.

I'll maintain accurate records of my work so that it can be readily reviewed and assessed.
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Team Signatures:

Signature: _____ Vishma Bhattarai _____

Signature: _____

Date: _____ 10/30/2025 _____

Date: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

Signature: _____

Date: _____

References

American Psychological Association. (2022). Stress in college students: How students are affected by workload and time management.

<https://www.apa.org/news/press/releases/stress/2022/college-students>

Jobscan. (2023). Applicant tracking system statistics: How many resumes get filtered out.

<https://www.jobscan.co/blog/ats-stats/>