Junior Project

WEB-BASED COURSE ALLOCATION SYSTEM

CAS

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INTRODUCTION

- Course allocation is an essential process in every department.
- Our CAS system aims to make it simpler, more organized, and more efficient through automation and smart design.

PROBLEM STATEMENT

- Course allocation is still manual → time-consuming, error-prone, and not transparent.
- HoDs struggle to match faculty expertise with courses.
- Faculty preferences and qualifications are overlooked.
- Need for a centralized, automated, and fair system.

AIMS & OBJECTIVES

Automate course allocation using a web-based system

Allow faulty to upload CVs + Submit preferences

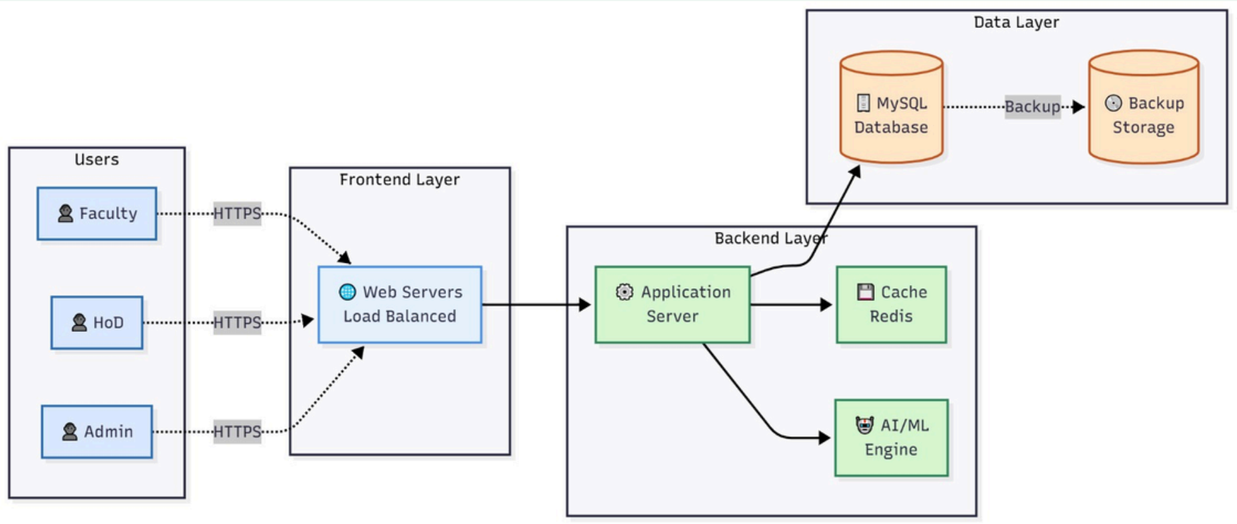
Provide AI-generated course recommendations to HoDs

SYSTEM ARCHITECTURE

- **Three-tier system**
  Client-side → Application Server → Data Source

- **Designed for scalability, data integrity, and secure access**

- **Includes diagrams for structure + behavior**

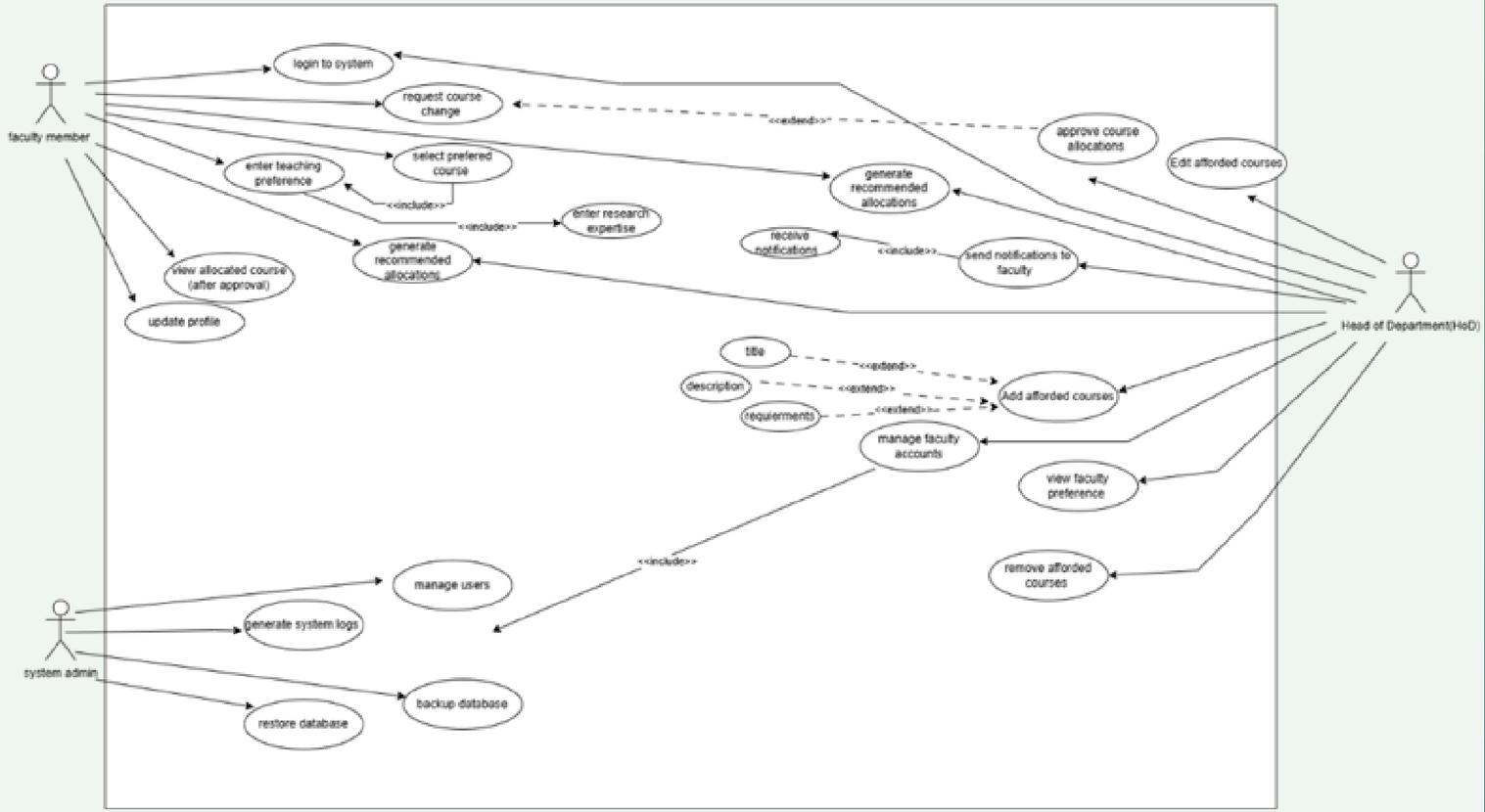


USE CASE DIAGRAM

User Roles/Stakeholders

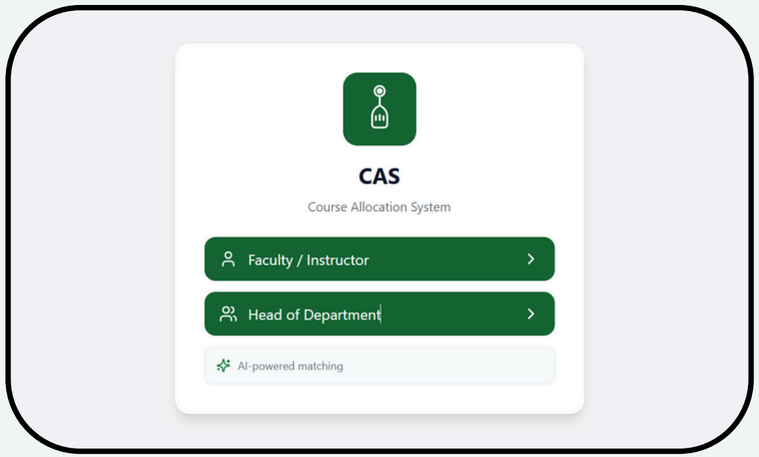
Main Actors

- **Faculty Member**
- **Head of Department**
- **System Administrator**



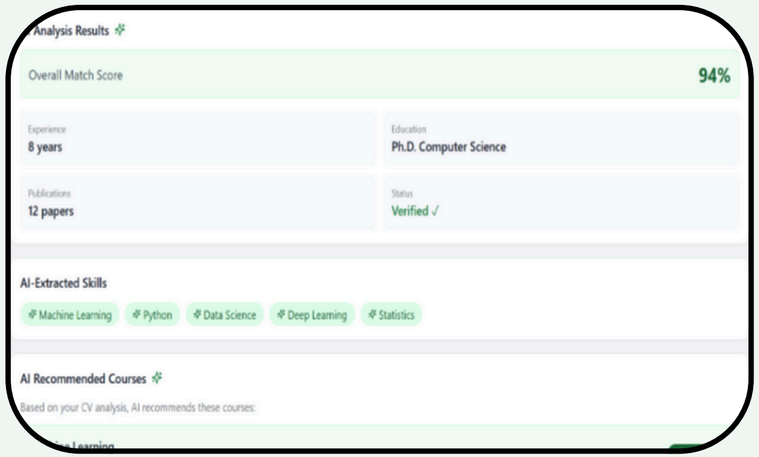
USER INTERFACE

Login/Sign Up

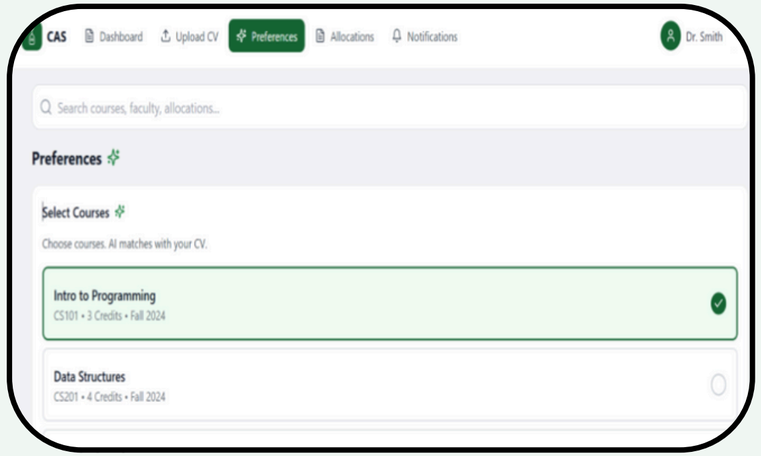


Main Dashboard

AI Analysis Page



Preferences Page

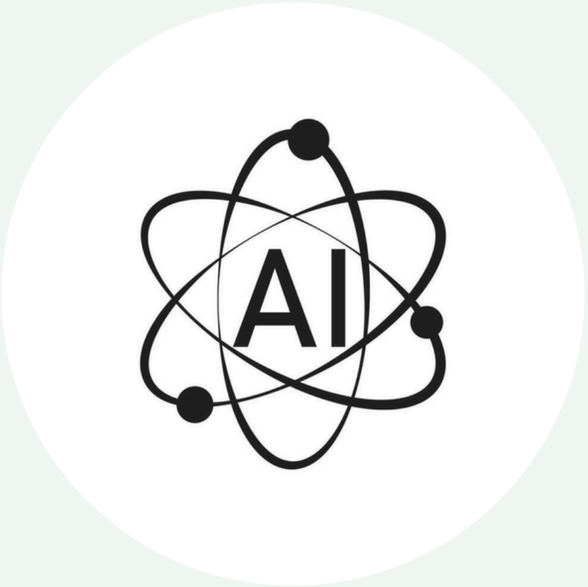


AI Matching Process

1. CV Extraction : System extracts skills, expertise, and past teaching
2. Course Requirement Analysis : AI checks what each course needs
3. Match Score: AI compares faculty skills with course needs.
4. Recommendations: System suggests the best instructor for each course
5. HoD Approval: HoD reviews and finalizes the allocation

FUTURE ENHANCEMENTS

- Syllabus Intelligence Engine
  AI reads syllabus and matches instructor.



- Advanced AI Matching

- Mobile Access

- AI Faculty Workload Prediction
  AI predicts how much workload each faculty can handle

- Instructor Performance Integration
  System recommends best instructor based on students feedback

CONCLUSION ✨

Our project, CAS, will become even more useful and efficient as we continue building on the solid base we created, allowing us to add more valuable features in the next stages.

THANK YOU

FOR LISTENING