

**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.



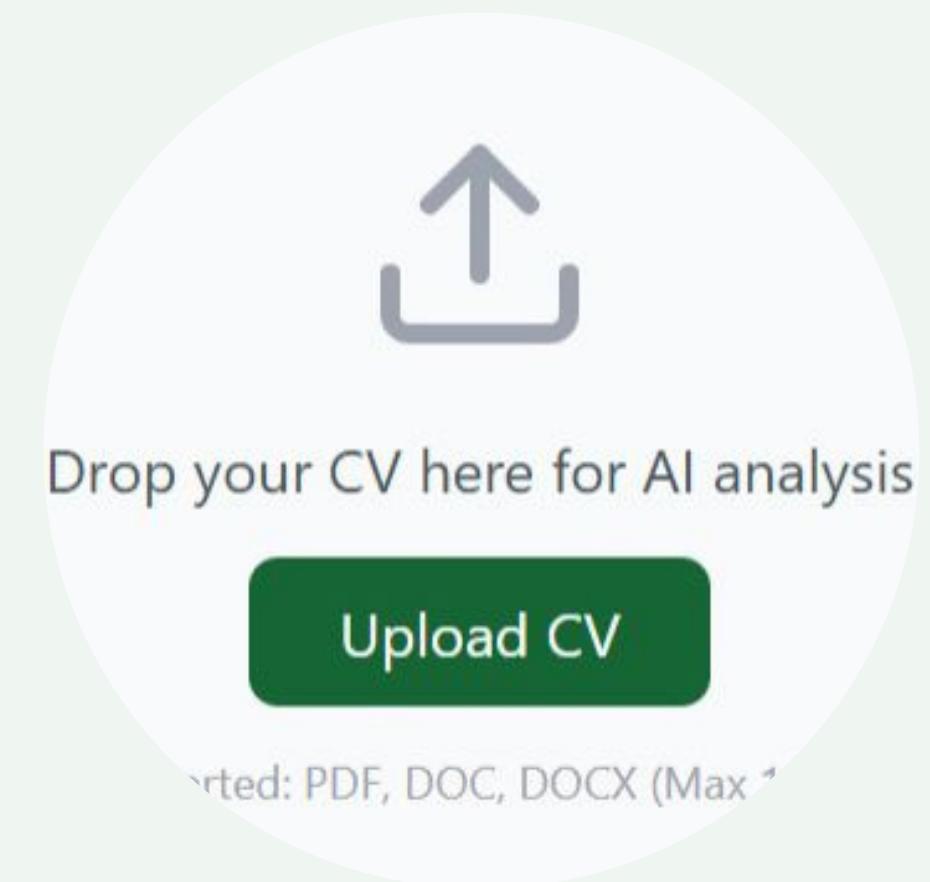
# PROBLEM STATEMENT

- 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**



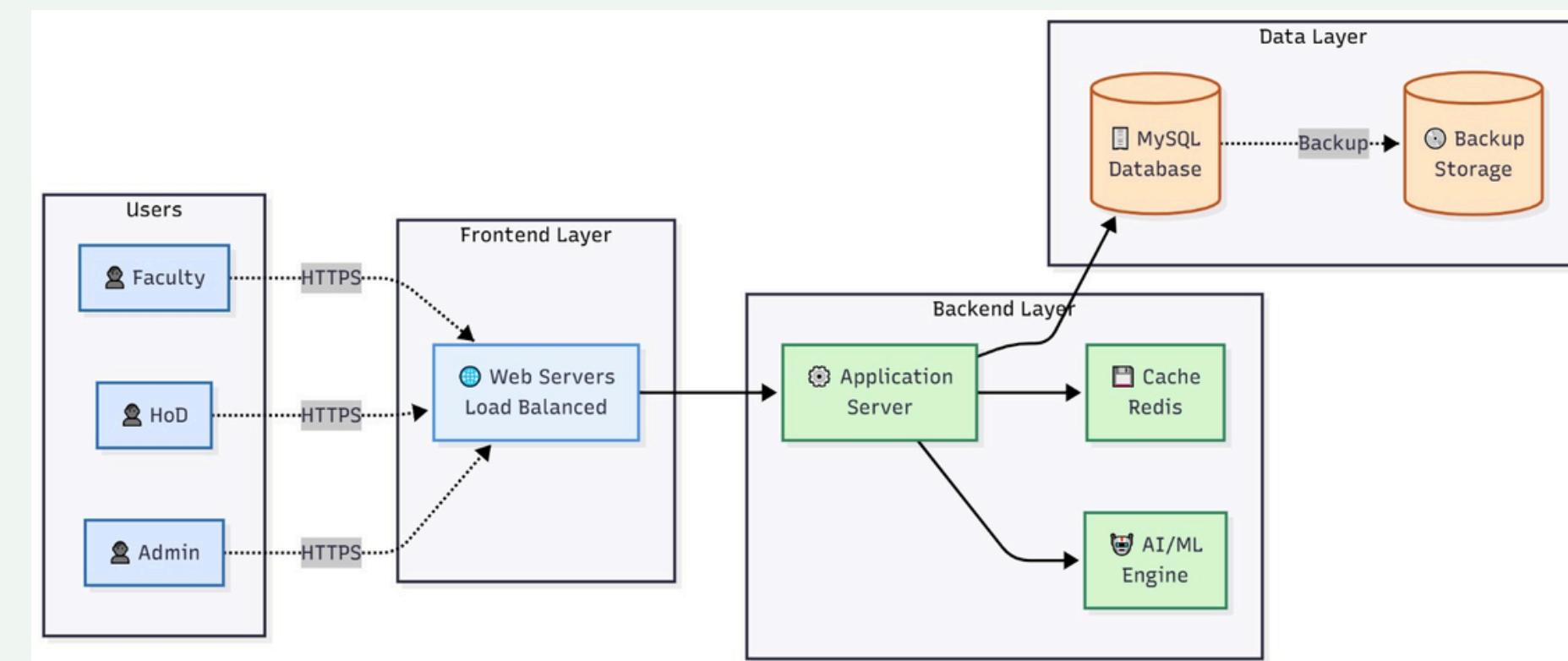
**Allow faculty to upload  
CVs + Submit  
preferences**



**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

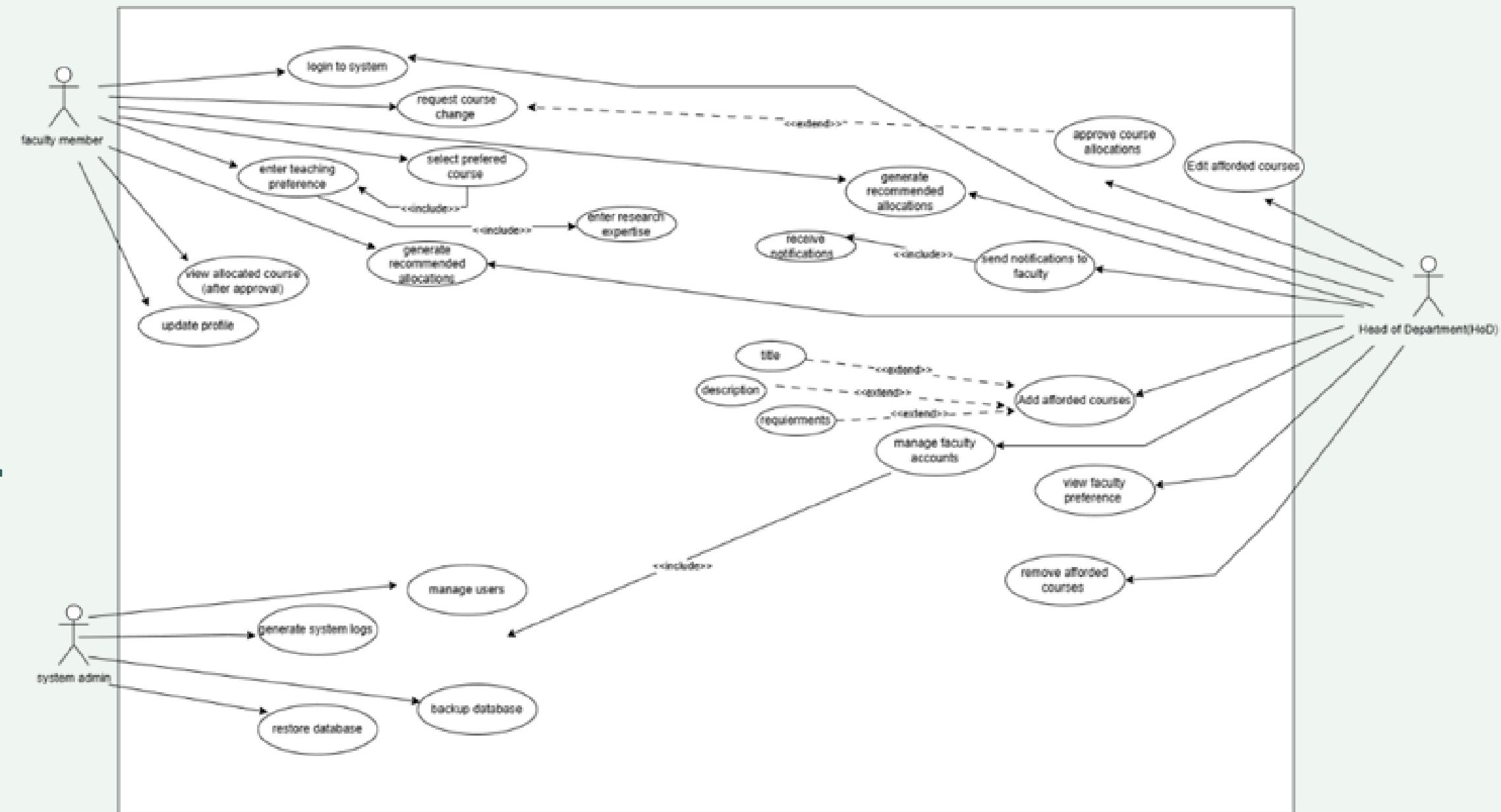


# USE CASE DIAGRAM

## User Roles/Stakeholders

### Main Actors

- Faculty Member
- Head of Department
- System Administrator



# USER INTERFACE

## AI Analysis Page

The page displays an overall match score of 94% based on experience (8 years), education (Ph.D. Computer Science), publications (12 papers), and status (Verified). It also lists AI-extracted skills: Machine Learning, Python, Data Science, Deep Learning, and Statistics. Below this, it shows AI Recommended Courses, specifically Intro to Programming (CS101) and Data Structures (CS201).

## Login/Sign Up

The screen features a green header with the CAS logo and the text "Course Allocation System". It includes two main buttons: "Faculty / Instructor" and "Head of Department", both with right-pointing arrows. Below these is a button for "AI-powered matching".

## Main Dashboard

The dashboard has a search bar at the top. Below it, there are four cards: "Courses" (5), "Faculty" (3), "AI Matches" (3), and "Pending" (1). At the bottom, there is a section for "AI Recommendations".

## Preferences Page

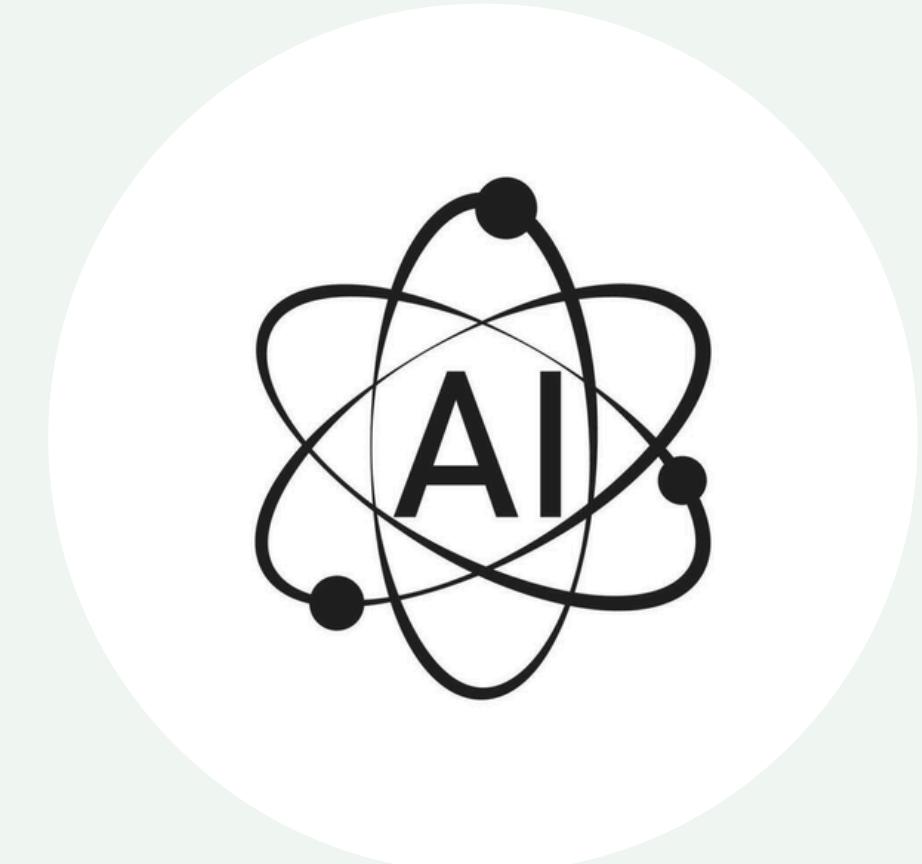
The page shows a "Select Courses" section with a note: "Choose courses. AI matches with your CV." It lists "Intro to Programming" (CS101) and "Data Structures" (CS201), both marked with a checkmark.

# AI Matching Process

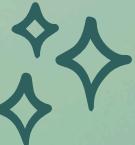
- 1. CV Extraction : System extracts skills, expertise, and past teaching**
- 2. Course Requirement Analysis : AI checks what each course needs**
- 3. Match Score: AI compares faculty skills with course needs.**
- 4. Recommendations: System suggests the best instructor for each course**
- 5. HoD Approval: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

