

## **The Learning Layers Application Requirements**

### **Summary:**

"Learning Layers" is an innovative e-learning platform designed to transform the traditional classroom experience into a dynamic, interactive, and AI-enhanced learning environment. By leveraging the power of AI, the platform aims to engage students in a more personalized and interactive learning process, similar to platforms like iClicker but with advanced functionalities.

### **Application Requirments/Functionalities:**

#### **Students Requirements:**

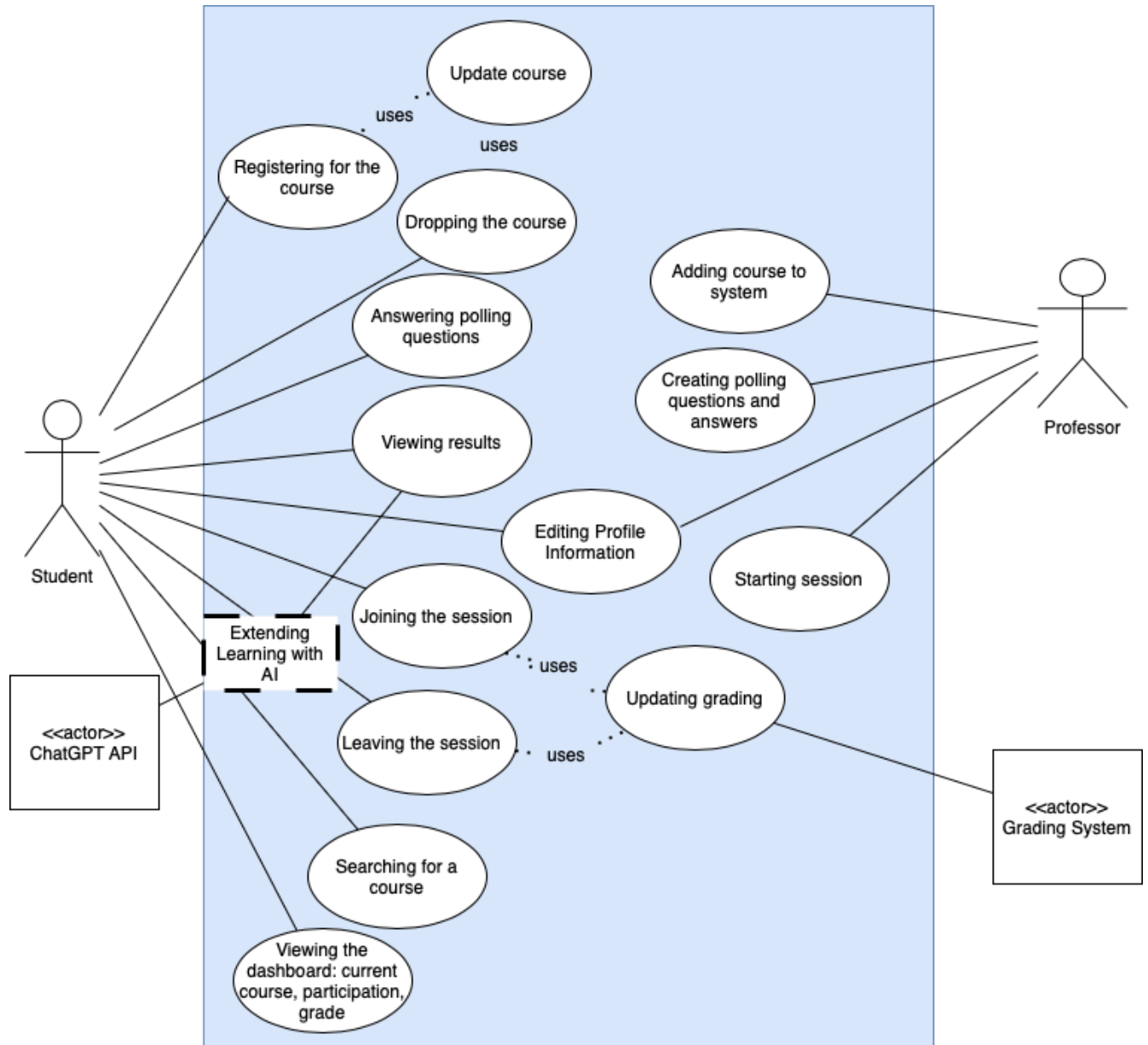
- 1) Allows students to login / signup into the application with a valid username and password
- 2) Once logged in, it may allow a student to logout to log back in using another account or not
- 3) Allowing students to pick from a selected number of avatars for their profile
- 4) Allows students to create and edit their profile information, including their username, avatars, and password.
- 5) Allows students to search up available courses on the application using a search bar
- 6) Enables students to enroll in courses they are interested in after searching for them
- 7) Enables students to drop from a enrolled course
- 8) Updates students grades and attendance percentage per course enrolled in
- 9) Provides a personalized dashboard for students to view their current courses, grades, participation, and notifications.
- 10) Allows a student to select from a multiple choice question
- 11) Once submitted, a A.I. API sends recommended practice questions and notes based on students' submissions

Teacher Requirements on the next page =>

**Teacher Requirements:**

- 12)Allows teacher to login / signup into the application with a valid username and password
- 13)Once logged in it may allow a teacher to logout to log back into another account
- 14)Allowing teachers to pick from a selected number of avatars for their profile
- 15)Allows teachers to create and edit their profile information, including their username, avatars, and password.
- 16)Enables teachers to create new courses, start new sessions, and visualize students' submission answers using a statistical chart after every question.
- 17)Provides tools for monitoring student progress, including grades, participation, and assignment completion
- 18)Offers the ability to create interactive polls and quizzes for students, with automatic grading options.
- 19)Enables teachers to stop a current session

**Use Case Diagram on the next page =>**



Features/User Stories on the next page =>

## **Features/User Stories**

### **Student:**

As a student I want to be able to create a profile so that I can participate in online lecture polls.

Acceptance criteria : User starts on home page and is prompted to click on create an account and an information form page appears requesting the user's information.

As a student, I want to track my progress and performance over time within each course on the platform so that I know how well i'm doing in a class.

Acceptance criteria : If a user is logged in and has selected a course, their overall attendance in the class will be displayed as well as their score in the given class.

As a student I want to be able to enrol in a course so that I can participate in online lecture polls.

Acceptance Criteria : User can look for course name and code using a search bar tool.

As a student I want to be able to check into class so that I can increase my attendance score.

Acceptance criteria : Student clicks check into class button that results in a message letting them know they have checked in

As a student, I want to have to option to receive additional learning so that when i'm done with a session in class, I can learn from the mistakes I made in class to gain a deeper understanding of class content.

Acceptance criteria : Once a user is done with a class session, a button saying "expand my knowledge →" can be clicked to present the user with more questions similar to the one's shown in class.

### **Instructor:**

As an instructor, I want to view real-time analytics on students' responses and participation to gauge their understanding.

Acceptance Criteria: After the polling is closed the professor should see statistics of answers displayed

As an instructor, I want to create and manage different courses within the platform, each with its set of learning materials and assessments.

Acceptance Criteria: The instructor clicks on "create course" which directs them to a form where they fill out the course name and course information. Clicking "manage course" takes them to the course page where they can set quizzes and view pre-existing ones

As an instructor, I want to customize the assessment criteria for quizzes to align with the specific learning objectives of my course.

Acceptance Criteria: The instructor clicks on the customize quizzes button which prompts them to a page where there are options on how to present the quizzes from multiple choice to short answers to fill in the blanks and an option for others which allows for further personalized customization