

# Group Project

## Machine Learning For Attendance Check

### Member

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### Summary

- Our team will use a machine learning tool to create a new attendance checking application. This application can be used by schools, universities and groups that need human management.
- How this app works: users can create their own class and time schedule for that class, they can add their student to the class. To check the appearance of a student, we will use a kind of machine learning model to recognition the face of that student.

### Goals

- Our goal is to create a simple and easy app for attendance checking, also a working AI that can recognition human faces.

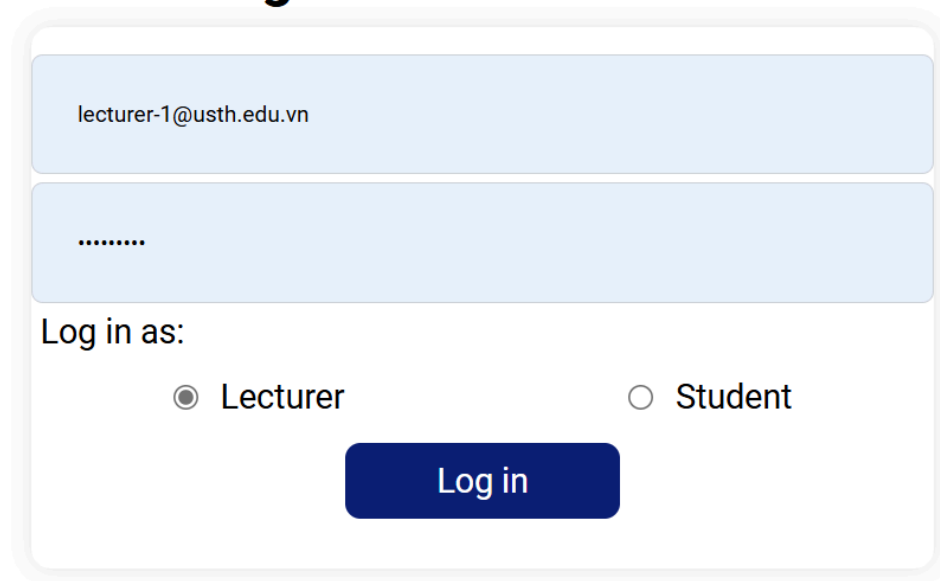
### Specification

- Application: education, human management.
- Platform: Web-App (css, html, python)
- Target-Audience: Teacher, lecturer, person that manages labor, ...

## Feature

- I. Login account
  - Lecturers or students will be provided their own account and must login exactly.

### Please sign in



A login form for a lecturer. It consists of two light blue input fields. The first field contains the email address 'lecturer-1@usth.edu.vn'. The second field contains a masked password represented by seven dots. Below the fields is the text 'Log in as:' followed by two radio button options: 'Lecturer' (which is selected) and 'Student'. At the bottom center is a dark blue 'Log in' button.

lecturer-1@usth.edu.vn

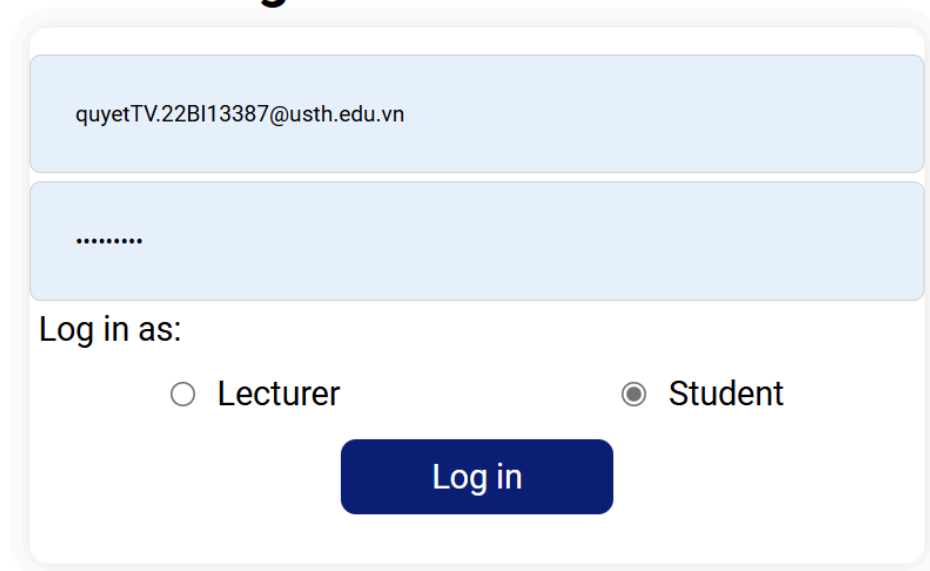
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Log in as:

☒ Lecturer ☐ Student

Log in

### Please sign in



A login form for a student. It consists of two light blue input fields. The first field contains the email address 'quyetTV.22BI13387@usth.edu.vn'. The second field contains a masked password represented by seven dots. Below the fields is the text 'Log in as:' followed by two radio button options: 'Lecturer' and 'Student' (which is selected). At the bottom center is a dark blue 'Log in' button.

quyetTV.22BI13387@usth.edu.vn

.....

Log in as:

☐ Lecturer ☒ Student

Log in

## II. Lecturers

### 1. Class Management:


- Lecturers are able to create their own class and create other schedules based on the class created.


**Create a new classroom**

**Name of Class:**

**Major:** DS ▼

**Name of Lecturer:**

**Start Date:**  
mm/dd/yyyy 

**End Date:**  
mm/dd/yyyy 

[Log in](#)

- Students can be added to the class and each class will have its own history.

STT	Subject	Major	Start date	End date	Lecturer	Action
1	Advance Databases	DS	2024-09-27	2024-10-10	lecturer-1	<a href="#">View</a> <a href="#">Delete</a>
2	Introduction to deep learning	ICT	2024-10-03	2024-11-14	lecturer-1	<a href="#">View</a> <a href="#">Delete</a>
5	fundamental of data science	DS	2024-10-10	2024-10-24	lecturer-1	<a href="#">View</a> <a href="#">Delete</a>

STT	Subject	Major	Start date	End date	Lecturer	Action
3	Advance Databases	ICT	2024-10-04	2024-12-19	lecturer-2	<a href="#">View</a> <a href="#">Delete</a>
4	Introduction to deep learning	DS	2024-11-07	2025-01-09	lecturer-2	<a href="#">View</a> <a href="#">Delete</a>

## 2. Student Management:

- Lecturers can create Students and add them to Class. Each Student will have their own identity such as name, id, face image.

Upload file

STT	Student name	Student id	Major	Face id
1	Trịnh Văn Quyết	22BI13387	DS	None
2	Đỗ Duy Minh	22BI11111	DS	None
3	Nguyễn Tiến Công	00003	DS	None
4	Đào Xuân Bách	22BI13049	DS	None
5	Trần Tuấn Kiệt	00005	DS	None
6	Đỗ Việt Tùng	00006	DS	None
7	Lê Đức Dũng	00007	DS	None
8	Nguyễn Trần Minh Quân	22BI13375	DS	None

## 3. Attendance checking

- Lecturers can see if students checked attendance or not.
- This feature will automatically calculate the sum of attendance of each student.
- At the end of each course, this will automatically send an email to each student if students can attend the final exam or not based on their attendance.

## 4. Auto email sender(in near future):

- Each end of the class, students who do not participate can receive a warning email.
- This system will automatically send them a warning email.

## III. Students

### 1. Student information

- Students can see their information:
  - + Which class they are attending.
  - + How much attendance they are having.
  - + Their basic information: Name, student id, major, ...

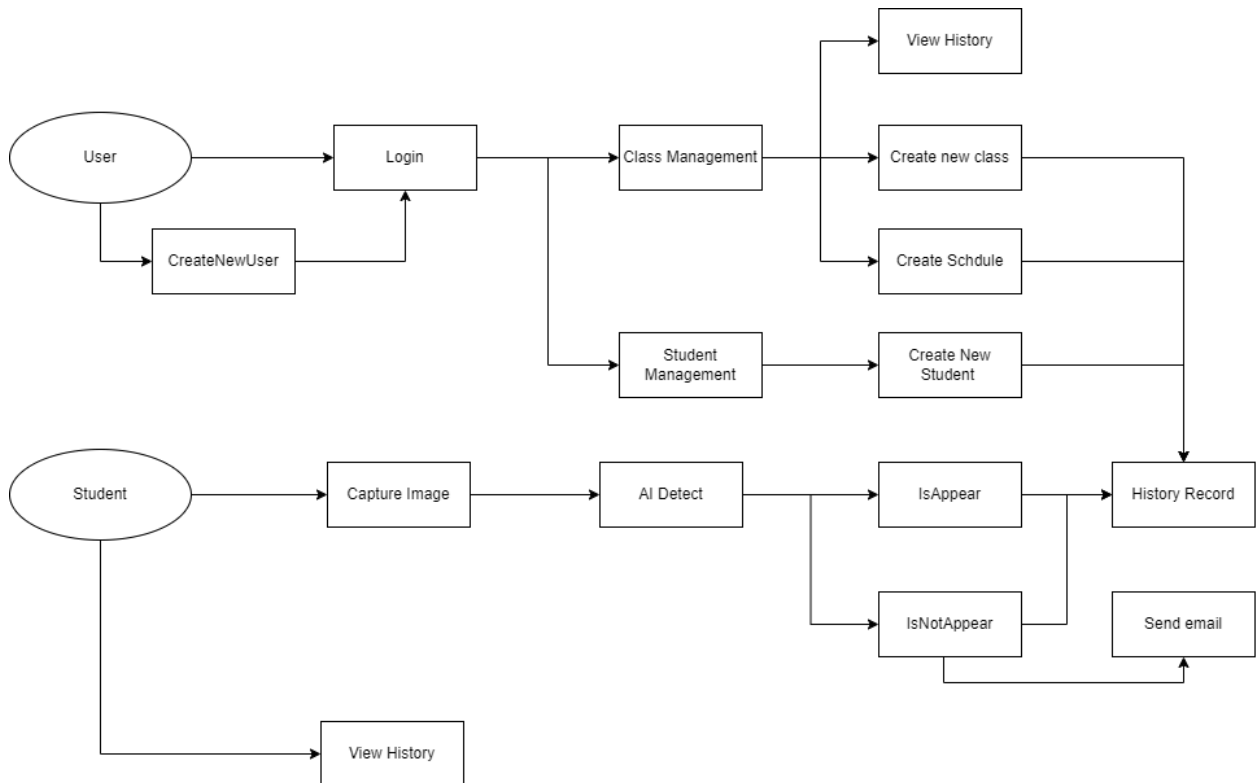
### 2. AI detection (Importance feature):

- A well working AI that can detect special patterns and shapes of a human face.
- This AI is used for attendance, the app will take the picture of current students to ensure they are in class on time.

### 3. Attendance information

- Students can view their own attendance of each class they attended.
- In this part, there is a report button, this button will be used to report to the lecturer when students recognize missing or wrongs in their attendance.

## Workflow



- WorkFlow Graph-
- WorkFlow will divided into 2 part: for User and for Student

## Application

## AI