

# Login System

## Welcome Page

- The home page should include an appropriate background image depicting our project.
- It should have a text field where the user enters his id (I will consider our college's id for the whole document).
- After he enters, a feature (Ajax) has to be implemented which checks if the entered id is present in the database or not.

## Login Page

- If the id is present in the database:
  - A modal has to appear which contains different login options (password, face, etc.).
  - The options should be in respective formats:
    - Text for password.
    - A button for face. When clicked on the button, it should capture the face and validate.
  - So, as of now, once the user enters the id and is available in the database, a modal has to appear with a text box and a submit button in one half and a face button in the other half.
  - Once the validation is done, all the attributes should be retrieved from the database and displayed (express js).

## Register Page

- If the id is not present in the database:
  - Another textfield should be displayed below the is along with a submit button where a user creates his account.
  - Proper validation of password should be done.

- On successful creation of an account, he should be redirected to a form page to collect all his personal details.
- He should then be redirected to the face recognition page where the system captures 10-15 images of him and stores in the database.
- He should be redirected to the user home page displaying all the details.

## Extra Features

- The user should be allowed to add a profile picture, change his password.
- We can use some CSS tricks to toggle between light mode and dark mode.
- Once a user changes his profile picture, his previous image should be deleted from the database for memory efficiency.
- The user should be able to add 2 factor authentication. A button has to be displayed. Once clicked, the password should be validated again and a QRCode has to be generated. Necessary steps have to be displayed.
- If the 2FA is on, the user should enter the code (a new code generated for every 30 seconds) while logging in.

## Technologies

Let us try to restrict certain technologies for now to avoid inconsistency.

- Database - MongoDB
- Server-side scripting - Node / PHP
- Face recognition - Python
- Styling - Bootstrap / CSS
- 2FA - Google authenticator

## Pushing to GitHub

While pushing to git, please make sure you create your own branch with a suitable name and commit only to the branch. In the end, when we can merge all the branches to the main branch.

Let us try to complete the project by January. This will be an added credit to our resume.

