

CS418/518 Spring 2025 Project – Milestone 1

This milestone is the first step in building a fully operational website. Your first task is to *build the basic framework* and the login credentials for the site. Evaluations will be focused on functionalities that meet the milestone's requirements.

Requirements

1. Users should be able to register new accounts using email addresses.
2. Users are identified by email address.
3. Password must be encrypted before storing in the database.
4. Users cannot register duplicate accounts using the same email address.
5. The user should receive a verification email upon successful registration.
6. Users cannot log in to the system until their email has been verified.
7. Users should be able to log into your website using the accounts they registered.
8. Users should be able to reset their passwords if they forget it.
9. Users should be able to change their passwords after they login.
10. A 2-factor-authentication should be used when a user attempt to login. This can be done by email, phone text, or a DUO push. *You can just implement **one** of them.*
11. The website should have a homepage for each user, where they can view their **profiles**, **change passwords**, and **update information**. Email cannot not be changed.
12. An admin user should be created from the backend. (Only 1)
13. An admin user has a different view from a regular user. (Later admin will approve the submitted advising sheet by student)

FAQ

What do you mean by "Users cannot log in to the system until their email has been verified"?

The user begins the registration process by interacting with the frontend of the application, typically by entering their First Name, Last Name, e-mail address, UIN, and password into a web form. In response to the submission of this form, the backend processes the information and sends a verification email to the address provided. An email contains a unique link or code that must be clicked by the recipient to confirm that the email is valid and belongs to them. Taking this step is essential for preventing spam registrations and ensuring user security. When a user clicks the link, their account status changes to "Verified". After their account has been verified, they can log in to the application using their credentials. By doing so, the application secures user data as well as ensuring that only legitimate users have access to it.

What do you mean by "An admin user should be created from the backend"?

Users can register for an account from the frontend, but for admin purposes, an additional database check for the 'Is_Admin' field is required. Therefore, at least one admin user must be created before any regular users can register. This admin user should have both the 'Verified

Status' and 'Is_Admin' fields set to true in the database, so when they log in from the frontend, they will see a different view compared to regular students.

Submission

All source codes should be committed to GitHub and the GitHub link should be posted on Canvas by *noon, **February 25th***. The demo will be performed on February 25th in class by random orders.