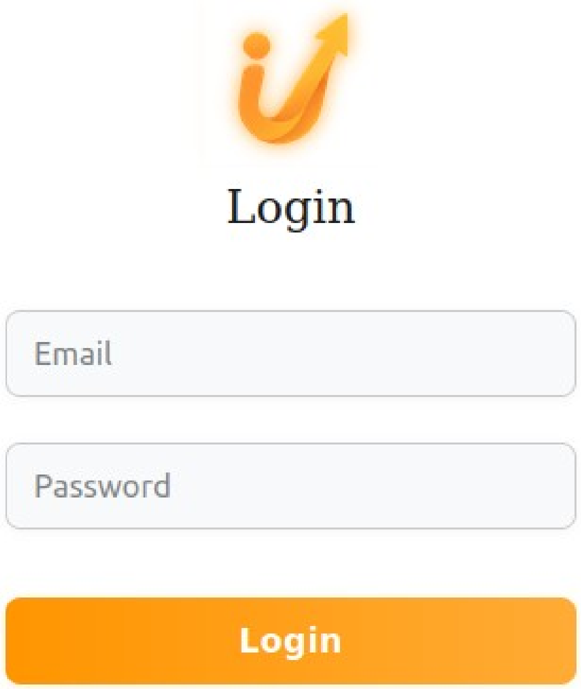
Code Assignment – Login page

The Task

You’re asked to build a web login page, which allows users to sign up and login to some system. When no user is logged in, the page displays the following fields:

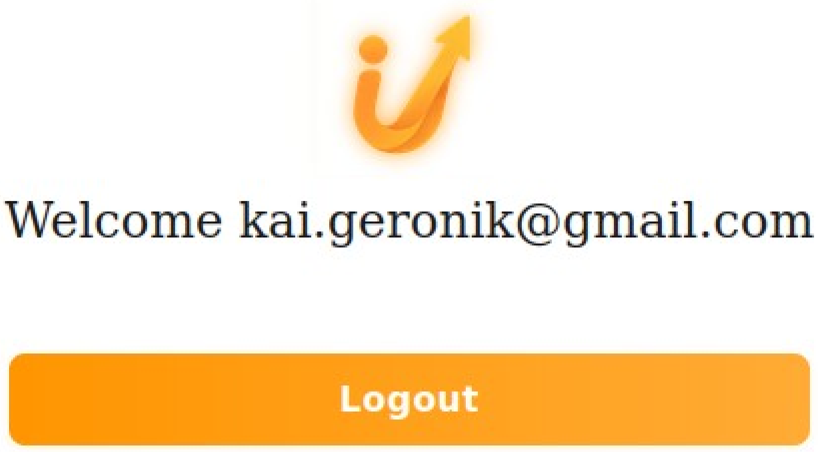
* email
* password

and shoud look something like -



Login

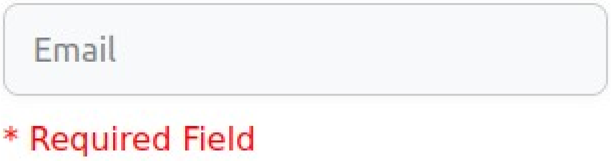
When the user is logged in, the page displays ‘Welcome {email}, and shoud look something like this -



Welcome kai.geronik@gmail.com

Technical Requirements

* When pressing the login button, a message of '* Required Field' should appear under any empty field. For example -

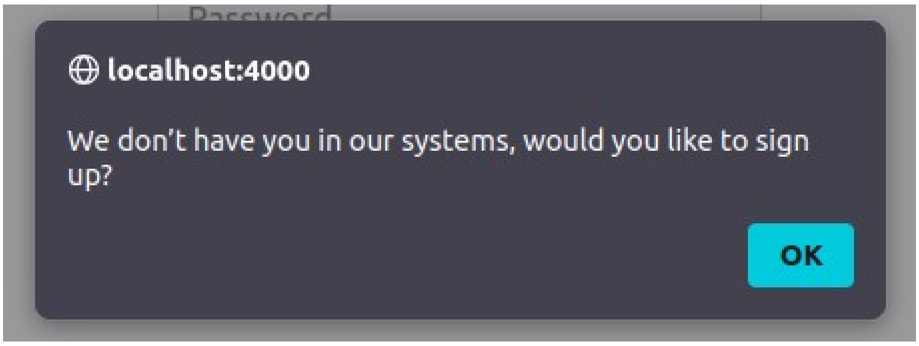


* Required Field

* When pressing the login button, if the email is invalid, a similar message saying "* Invalid Email" should appear under the email field. A valid email consists of an email name, followed by a @ sign, followed by a domain name, then .com, for example – email@domain.com

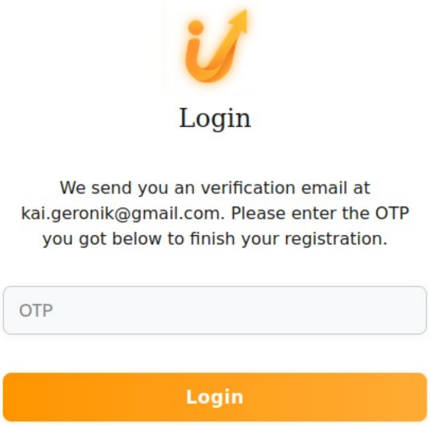
* When pressing the login button, if the password is under 8 characters, a message saying "* Password must be 8+ characters" should appear under the password field.

* When pressing login, if all of the above checks (valid email and password) passed, if the email is not in the database (more instructions regarding the database below), an alert saying 'We don't have you in our systems, would you like to sign up?' should appear. Clicking 'Ok' should start the sign up process (more on the sign up process below).



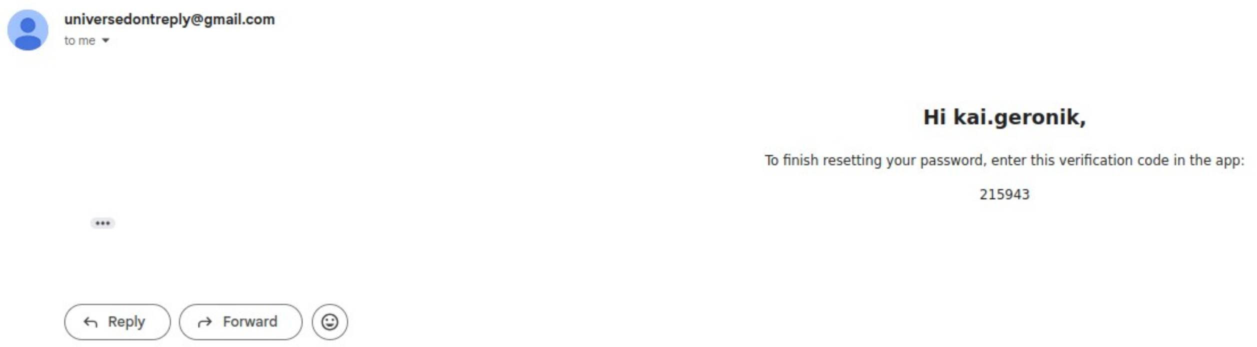
We don't have you in our systems, would you like to sign up?

* The sign up process replaces the email and password fields with a single field called 'OTP' (one time password), which the user is required to fill in order to finish the sign up process. The OTP should be sent to the email the user entered. If they fill in the correct OTP, the system should log them in, otherwise, a message of '*Invalid or expired OTP' should appear under the OTP field, similar to the '*Required Field' example. The screen should look like -



We send you an verification email at kai.geronik@gmail.com. Please enter the OTP you got below to finish your registration.

And the email should look something like -



universedontreply@gmail.com

to me

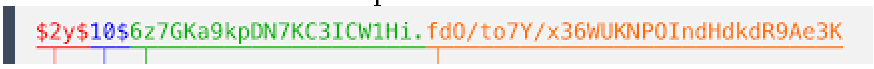
Hi kai.geronik,

To finish resetting your password, enter this verification code in the app:

215943

* If the user is already signed up, and they enter the correct email and password, they should be logged in. If the password is incorrect, a message saying '*Invalid email or password' should appear above the email input.

* Passwords uploaded to the database should be encrypted, so that anyone who sees the passwords field in the database wouldn't know the actual password of the user, and they should be decrypted when the backend checks the password a user entered when trying to login against the password that exists in the database. A password field in the database should look something like -



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$2y$10$6z7GKa9kpDN7KC3ICW1Hi.fd0/to7Y/x36WUKNPOIndHdkdR9Ae3K
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For clearence, the hash doesn't have to follow the schema of the above example, as long as the password is hashed.

* When a user is logged in, a JWT with a lifetime of 10 minutes should be issued and saved in the local storage for reoccuring sessions, so that if the user re-enters the page, they'd automatically be logged in, and it should be removed from the local storag when a user logs out.

* Please upload the project to github in a monorepo, use React for the frontend, nodeJS + express for the backend, and mongoDB as your database. For simplicity, a environment variables (.env files) should be uploaded to the github alongside the project. In order to avoid exposing sensitive information, such as the database connection string, we recommend opening a new mongoDB account and a new email (from which the user gets the verification email, such as noreply@gmail.com) for the project.

Good luck :)
The Dojo Team