

Hux Ventures Fullstack Developer Assessment

This test is intended to evaluate your ability to work on both frontend and backend development tasks, as well as your problem-solving and communication skills.

Instructions

- Complete the task, paying close attention to the specifications provided. - Create two public GitHub repositories - ***hux-assessment-backend*** and ***hux-assessment-frontend***. Your backend solution should be in the *backend* repository, and your frontend solution should be in the *frontend* repository.
- Ensure to make regular commits to the repositories as you make changes. - In the README file of each repository, provide clear instructions on how to run your application, including external libraries that need to be installed.
- Make a short video demo of your working solution and upload it to any publicly accessible online platform (e.g., YouTube, Google Drive).
- Send an email containing links to the repositories as well as an accessible link to the video demo to [EMAIL ADDRESS] on or before the submission deadline.

SUBMISSION DEADLINE: 23/07/2024. 10:00 AM GMT+1

Task

Create a simple web application that allows users to save contact information. Your application should be divided into a backend RESTful API and a frontend that makes API calls to the backend.

Backend Specifications

- Create the RESTful API using any server-side framework based with **Node.js** (JavaScript or TypeScript)
 - Creating a new user
 - Login/Logout
 - Creating a new contact
 - Retrieving a list of all contacts
 - Retrieving a single contact
 - Updating a contact
 - Deleting a contact
- Each contact should contain the following required fields:
 - First name
 - Last name
 - Phone number
- Implement validation to ensure data is correctly formatted before saving it - Use **MongoDB** as the database
- Secure your API by implementing appropriate authentication mechanisms (e.g. JWT, OAuth)

- Write unit tests for the *Create* and *Update* API endpoints.
- Use Git for version control

Frontend Specifications

- Create a simple web interface for the backend service using **React or Next.js**. - It should contain the following pages:
 - **Homepage** - Shows some useful information about the web app
 - **Signup/Login page (or popup)** - Allows a user to signup or login
 - **Create contact page** - Contains a form for a user to add a new contact -
 - **Edit contact page** - Allows the user to update a contact information
 - **Contacts list page** - Lists all saved contacts for the logged-in user
 - **Contact details page** - Shows the full details of a saved contact
- Deleting contacts should be implemented on the *Contacts list page* or the *Contacts details page* (or both).
- Logged-in users should be directed to the *Contacts list page* when they visit the site from a new browser tab while anonymous visitors should be redirected to the *Homepage*. - Style the application to make it visually appealing. It should be simple but intuitive. Do **NOT** use CSS preprocessors (e.g., Sass, LESS, etc.), but you can use CSS frameworks (Bootstrap, Tailwind CSS, etc.).
- The frontend should be highly responsive and follow web accessibility standards. - Use Git for version control

Bonus Task (Optional)

- Write unit tests for the other API endpoints
- Document your API using Swagger or similar tools
- *Add any other features you think the web app should have.*

Evaluation Criteria

- Code quality, readability, and maintainability.
- Correct implementation of frontend and backend tasks
- A working project video demo.
- Proper use of version control (Git)
- Compliance with best practices for security and performance.
- Code comments and documentation
- Bonus task completion (if attempted)

Remember to follow the instructions for submission carefully.

NB: Don't forget to add the video link to your submission

Good luck!