FULLTIME FORCE

Take-Home Test

Objective

Develop a full-stack web application that displays Pokémon information from the PokeAPI. Users must be able to create a list of their favorite Pokémon and generate a unique code that later could be used to retrieve their favorites Pokémon in any other browser/session. Also, users must be able to search Pokémon based on their name and other different attributes (type, ability etc.).

Technical Requirements

1. ### General
    a. **GitHub Repository:**
        i. Host your code in a **public GitHub repository**.
    b. **Documentation:**
        i. Include a README.md with clear setup, configuration, run instructions for both frontend and backend and justification of package elections.
    c. **Testing:**
        i. Write **unit tests** for key components and functions in both frontend and backend.
    d. **Docker (Optional):**
        i. Configure the application to run using **Docker Compose** if time permits.
2. ### Frontend
    a. **Technology Choice:**
        i. Use a frontend technology you are comfortable with (e.g., React.js, Angular, Vue, etc.).
    b. **State Management:**
        i. Use appropriate state management techniques.
    c. **Integration with PokeAPI:**
        i. Fetch Pokémon data and handle API errors appropriately.
    d. **Design and User Experience:**
        i. Create an intuitive and **responsive** UI with attention to user experience.
    e. **Error Handling:**
        i. Implement proper error handling with user-friendly messages and loading indicators.

3. ## Backend
    a. **API Endpoints:**
        i. Create endpoints to **save** the favorites list and **generate a unique code**.
        ii. Create an endpoint to **retrieve** the favorites list using the unique code.
    b. **Data Persistence:**
        i. Store the favorites lists and codes in an appropriate storage solution (e.g., in-memory database, file-based storage, or a simple database).
    c. **Technology Choice:**
        i. Use a backend technology you are comfortable with (e.g., Node.js with Express).
    d. **Input Validation and Security:**
        i. Validate and sanitize all inputs to ensure security.
        ii. Implement basic security techniques.
    e. **Architecture and Scalability:**
        i. Design the backend with scalability and maintainability in mind, using proper architectural patterns.
    f. **Error Handling:**
        i. Implement robust error handling with meaningful responses.

Final Notes

The goal of this test is to evaluate not only your technical skills but also your attention to detail, ability to create an exceptional user experience, and your approach to quality and best practices in software development. You are expected to deliver a web application that not only works correctly but also demonstrates a high level of professionalism and dedication.

Presentation

1. You will need to sign up for a free GitHub account if you do not already have one, then create a public repository to store your work so that we will be able to see and review it.
2. Your GitHub repository must be public - this will allow us to look at it and verify the accuracy of your code. Once you complete this project, you will need to send over the link of the project to me (take-home-test@fulltimeforce.com).

Try the best you can!!!
Good Luck!