

### 1.1.1 SDE coding challenge

Here you are! We're happy that you're interested in working for Quantum Inventions! To get a better idea of your current skills, we'd like you to complete a coding challenge - build a web app to display and update resources (e.g - users). The actual requirements are listed further down, but here are the general tech requirements:

- Make sure your app is runnable on Windows, Mac OS X and Linux
- Do not include any paid software dependencies
- Include instructions for setting up and running your application
- You are free to add any open source CSS framework like Bootstrap, Material UI as per the need

### 1.1.2 Description

Develop a web application which can support following functionalities:

- Build a **Registration** and **Login** page which takes user email and password
- After successful login, go to page where users are listed down
- Use *delayed response* of 5seconds to show a loader icon on a popup
- The users **List** page should have following
  - A Search and Sort feature to filter desired item
  - A Tabular view to show each items divided by rows
  - Add Pagination support. Each page should have maximum 4 items to show.
- The individual rows of resources in the list, should have following
  - It should contain following details *atleast* : user profile image/ avatar, first name, last name
  - Each row should have option to **Edit** the item, or **Delete** the item from the list
  - On click of **Edit**
    - A collapsible section should open (e.g - Accordion)
    - Section should contain editable form to edit first name and last name
    - *Form specifications*
      - Required fields: First Name, Last Name
      - Pattern:
        - Names should not contain any digit or special character
        - Names must start with capital case (e.g - John)
        - First and last name should **not** be multi-word input (e.g: A valid first name attribute should not look like John Doe)
    - Once updated, the row should reflect the change
  - On click of **Delete**
    - The item should be deleted from the list of users
- On click of **Logout** button, the user should return to login page
- If users try to navigate to a route which does not exist, show a custom error message

**Complete the assignment as you would do for the real-life production environment.**

Write your code in Javascript(ES6,ES7), AngularJS or React

### 1.1.3 What we're looking for

- Showing your work through your **commit history**
- Polish
- Holistic understanding of all components of web development
- Pride in craftsmanship

### 1.1.4 What we care about

- Architecture:
  - How clean and reasonable is the separation between codes?
  - How optimized is the logic used to solve the problem with respect to memory consumption and execution time?
- Clarity:
  - Does the README clearly and concisely explain the problem and solution?
  - Are technical tradeoffs explained?
  - Explanation of design principles and FE framework specific best practices to be followed
- Code quality:
  - Is the code simple, easy to understand, and maintainable?
  - Are there any code smells or other red flags?
  - Is the coding style consistent with the FE framework's guidelines?
  - Is it consistent throughout the codebase?
  - Are negative scenarios handled?
  - How strong are the validations in place for the forms?
- Testing:
  - Quality of unit tests
  - Adequacy and coverage of tests
- Correctness:
  - Are there any gaps?
  - Does the README explain what the gaps are and the reasons?

Please submit your work by sending us a link to a GitHub repo with your code.