### **Assignment:**

Build a Full Stack application that manages a library of books. Hard code a list of books to start with in memory on server side.

#### Frontend:

Use Angular or React to build the front-end component of the application. This should include:

- 1. A view to display all books in the library using a card style layout.
- 2. A view to add a new book to the library.
  - Create a separate page for adding
  - All fields are editable
  - Validate all inputs
- 3. A view to edit a book.
  - All fields are editable
  - Validation of inputs
  - Create a separate page for editing
- 4. A view to delete a book.
  - A simple delete with a confirmation popup. Are you sure you want to delete Contact"?

Each book should have the following properties:

- Title
- Author
- Year Published
- Genre

Use a simple state management library (Zustand, Jotai etc. No Redux please) on the front end. Once a book is added, edited, deleted return to the home page and the list of books should reflect the changes made.

# **Backend:**

Use Node.js to build a REST API with the following endpoints:

- GET /books Retrieves all books.
- POST /books Adds a new book.
- PUT /books/:id Updates an existing book.
- DELETE /books/:id Deletes a book.

Data persistence can be in-memory, so there's no need to implement a database.

### **Bonus:**

- 1. Implement error handling on both the front end and the back end.
- 2. Add unit tests to both the front end and the back end.

#### **Submission:**

- Create a git repository for your project.
- Commit your work with descriptive commit messages.
- Push your work to a remote repository and share the link.

## The application will be evaluated on:

- 1. Usage of state
- 2. Routing
- 3. Forms
- 4. Overall architecture
- 5. Styling
- 6. Accessibility

**Note:** Your application will be evaluated on code quality, clarity, design and functionality. Feel free to show your understanding of best practices and your ability to write clean, well-structured, and well-documented code.

## Frontend:

Use Angular or React to build the front-end component of the application. This should include: A view to display all books in the library using a card style layout.

A view to add a new book to the library.

- Create a separate page for adding
- All fields are editable
- Validate all inputs

A view to edit a book.

- All fields are editable
- Validation of inputs
- Create a separate page for editing

A view to delete a book.

- A simple delete with a confirmation popup. Are you sure you want to delete Contact"?