

## Detailed instructions how to use the software

Here are detailed instructions on how to utilize the Employee Management System, providing step-by-step guidance:

### Launching the Spring Boot Backend:

- Run Spring Boot Application:

Open your preferred Integrated Development Environment (IDE) and execute the Spring Boot application.

- Verify successful startup by reviewing the console logs for any potential errors.

### Initializing the Database:

#### 1. Accessing H2 Database Console:

- Navigate to `http://localhost:8080/h2-console` using a web browser.
- Utilize the JDBC URL ``jdbc:h2:mem:testdb`` and login with credentials specified in the ``application.properties`` file.

#### 2. Data Initialization:

- Execute SQL scripts or manually insert sample data into the database if necessary.

### Launching the React Frontend:

#### 1. Starting the React App:

- Open a new terminal window and navigate to the React app directory: ``cd employee-management-react``.
- Install dependencies using ``npm install``.
- Run the React app with ``npm start``.
- The frontend development server will begin, and the application will be accessible at `http://localhost:3000`.

-Navigating and Using the Employee Management System

### **View Employee List:**

- Access <http://localhost:3000> via a web browser.
- The Employee List page will display existing employee records retrieved from the Spring Boot backend.

### **Adding a New Employee:**

- Click the "Add Employee" button to proceed to the Add Employee page.
- Complete the required fields in the form (e.g., first name, last name, email) and click "Save".
- The new employee will be added to the list, and you'll be redirected to the Employee List page.

### **Editing an Employee:**

- On the Employee List page, select the "Edit" button corresponding to an employee.
- Modify the employee details and click "Save".
- The alterations will be updated in the employee list.

### **Deleting an Employee:**

- From the Employee List page, choose the "Delete" option next to an employee.
- Confirm the deletion.
- The employee entry will be removed from the list.

### **Testing API Calls:**

- Open the browser's developer tools (usually by pressing F12).
- Visit the "Network" tab.

- Perform CRUD operations on the user interface and observe the corresponding API calls made to the Spring Boot backend.

### **Additional Features and Deployment:**

#### **1. Exploration of Features:**

- Explore additional functionalities such as employee searching or implementing pagination.
- Intentionally input incorrect data to examine error handling and validation.

#### **2. Deployment (Optional):**

- If deploying to a server or cloud platform, generate a production build for the React app using ``npm run build``.
  - Deploy both the Spring Boot backend and React frontend as per your chosen hosting solution.
  - Update API URLs in the React app if the backend is hosted on a different server.
- These instructions provide a comprehensive guide to utilizing the Employee Management System, covering setup, interaction, and additional exploration, ensuring a clear understanding of the system's functionalities. if the backend is hosted on a different server.