Design a Dynamic Frontend with React

Phase-End Project

HR Portal

Objective

The primary goal of the HR Portal project is to create a secure and user-friendly web application that simplifies and provides a seamless execution of HR activities.

This portal is designed to empower HR professionals to effectively oversee employee information, sanction leave applications, and simplify the employee onboarding process. Moreover, employees will be able to register, furnish their personal information, and access HR-related services, all of which collectively enhance and streamline the HR processes within the organization.

Problem Statement and Motivation

Real-time scenario:

Many organizations struggle with manual and time-consuming Human Resources (HR) management processes. These processes involve managing employee data, handling leave requests, and overseeing employee onboarding. Traditional methods can be error-prone, inefficient, and lack security measures. HR personnel often find it challenging to maintain accurate records and provide a seamless experience for employees.

As a frontend developer, your task is to design and implement the user interface (UI) for the HR Portal, a comprehensive Human Resources management system. Your responsibilities include creating a user-friendly and responsive web application that enables HR personnel and employees to interact with the system seamlessly including the efficient management of attendance regularization requests.

Industry Relevance

The following tools are widely being used in the industry to design the frontend of a web application:

1. **HTML:** It is used to structure the content on the web pages, laying out the foundation for text, images, and other multimedia elements in the project.

2. **CSS:** It is employed to style and layout the web pages designed with HTML. It controls the visual appearance, from fonts and colors to spacing and responsiveness.

3. **Node.js:** It is a server-side JavaScript runtime environment that enables building scalable and high-performance web applications. It excels in handling I/O operations and is widely used for creating server-side APIs and real-time applications.

Industry Relevance

4. **JavaScript:** It adds interactivity and dynamic elements to the web pages. It is used for client-side scripting to create responsive, interactive elements for the user interface.

5. **Bootstrap:** It is a front-end framework used for designing responsive and mobile-first web pages. It provides pre-written CSS and JavaScript templates for various interface components, significantly speeding up the development process.

6. **React.js:** It is a JavaScript library for building user interfaces, emphasizing component-based architecture and reusability. It facilitates the development of fast, interactive, and maintainable web applications, making it a popular choice among developers.

Tasks

The following tasks outline the frontend development process of an HR portal using React:

1. Initialize a React project using preferred tools (e.g., Create React App)

2. Create user authentication components such as login and signup forms

3. Define user roles and implement role-based access control

4. Integrate Bootstrap for its responsive design components

5. Design components for HR to manage employee profiles

6. Implement data storage for employee profiles using JSON

7. Design components for leave requests and management

Tasks

8. Design and implement a registration component for employees to sign up with personal details

9. Develop user interfaces for HR and employees with responsive layouts and navigation

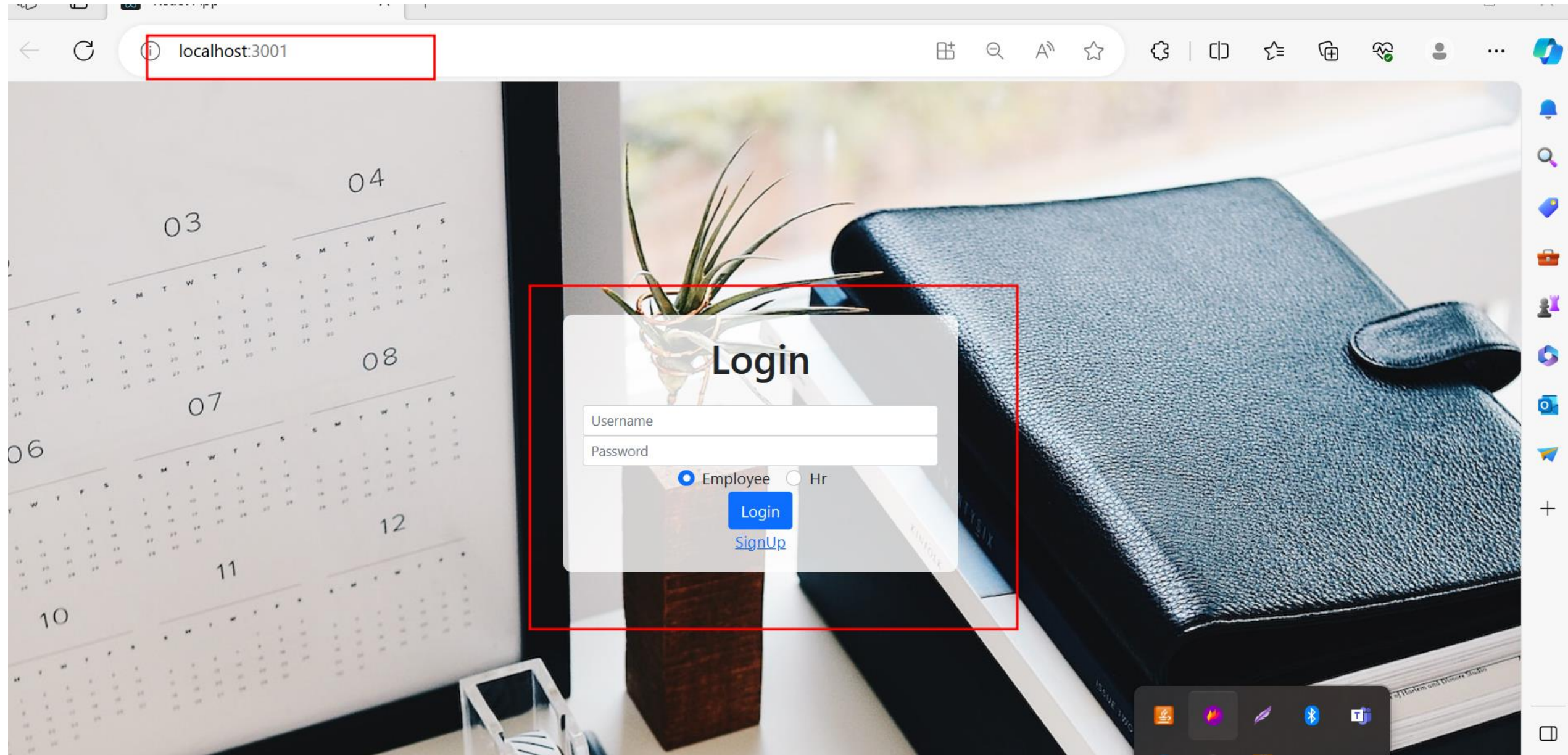10. Apply CSS styles and customize the visual theme

Project References

- **Task 1:** Course 1 Lesson 2

- **Tasks 2 and 5:** Course 1 Lesson 3

- **Task 6:** Course 2 Lesson 1

- **Tasks 7 and 8:** Course 2 Lesson 3
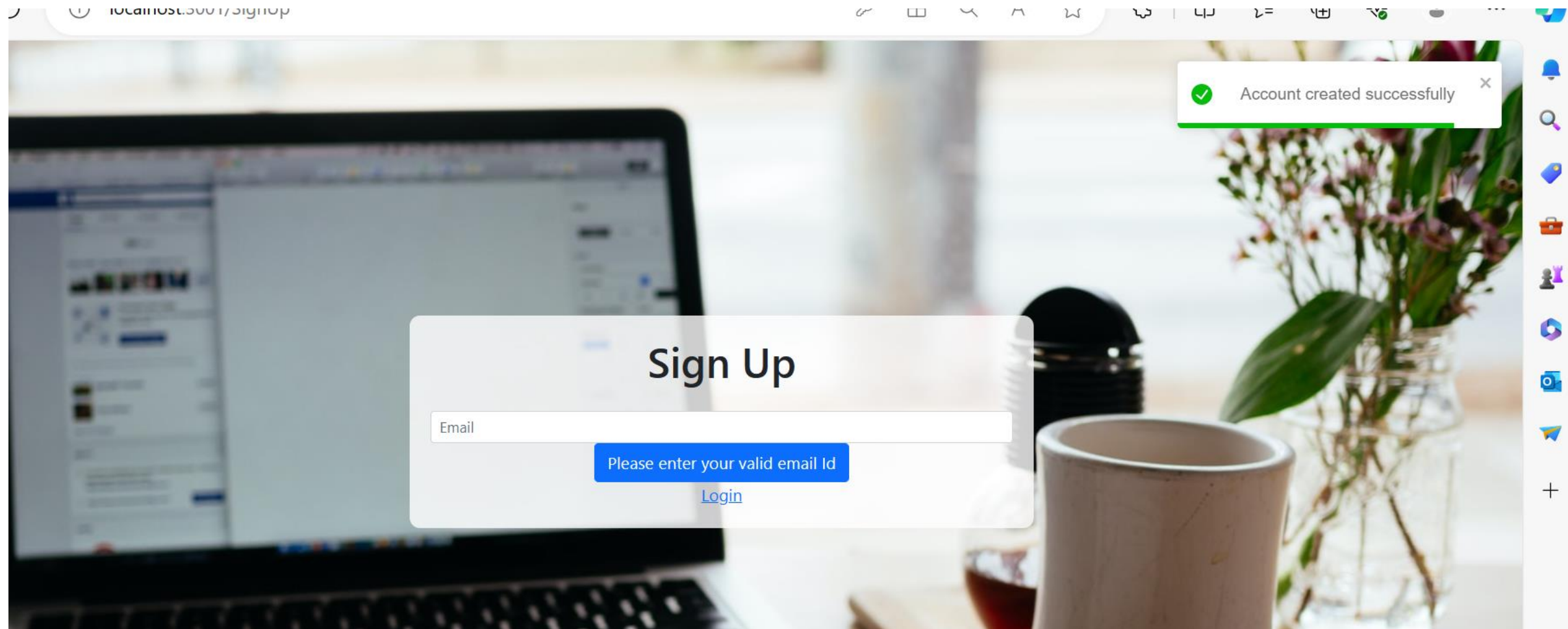
- **Task 10:** Course 2 Lesson 3
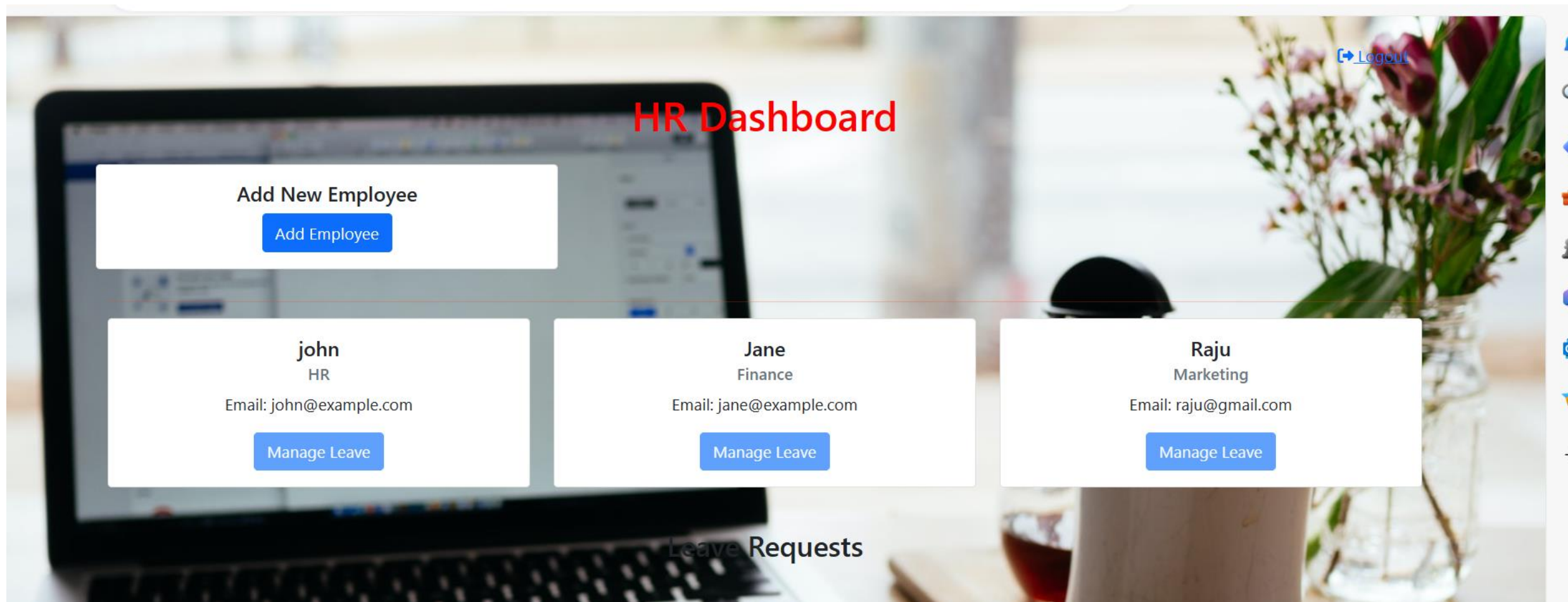
Visual Overview

Login page:
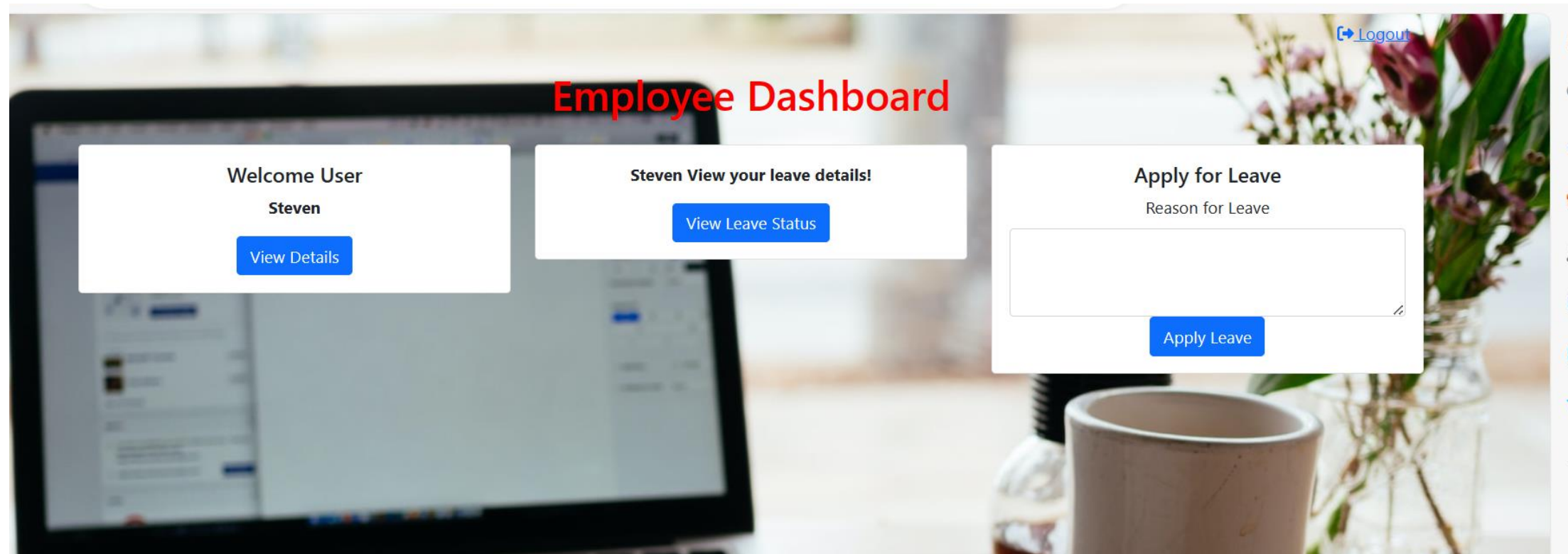
Visual Overview

Sign up page:

Visual Overview

HR dashboard:

Visual Overview

Employee dashboard:

Thank You