



**CEBU INSTITUTE OF TECHNOLOGY**  
**U N I V E R S I T Y**

# IT342-Section SYSTEMS INTEGRATION AND ARCHITECTURE 1

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## FUNCTIONAL REQUIREMENTS SPECIFICATION (FRS)

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Project Title: Mini App – User Registration & Authentication

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## 1. Introduction

### 1.1. Purpose

The purpose of this document is to define the requirements for a User Authentication System that supports user registration, login, logout, and profile view. The intended audience for this document are instructors, students, developers, and other stakeholders who need a clear understanding of the system's functionality and limitations.

### 1.2. Scope

The User Authentication System provides basic access control for a web application. It allows users to create an account, authentication , log out , and view their personal profile.

### 1.3. Definitions, Acronyms, and Abbreviations

**User** - an individual who interacts with the system.

**Guest User** - A user who is not logged in.

**Authenticated User** - A user who can successfully log in.

**API** - Application Programming Interface

## 2. Overall Description

### 2.1. System Perspective

The system is a web-based application composed of a frontend and a backend. The frontend is developed using React and communicates with a Spring Boot backend through RESTful APIs. The backend manages authentication logic and communicates with a relational database to store and retrieve user information.

### 2.2. User Classes and Characteristics

- **Guest Users**
  - Can register and log in
  - Cannot access protected system features.
- **Authenticated users**
  - Can register and log in
  - Can view their profile
  - Can log out of the system

### 2.3. Operating Environment

**Client Devices:** Desktop, laptop, or mobile device

**Web Browser:** Chrome, Firefox, Edge, or similar

**Frontend Technology:** React UI

**Backend Technology:** Spring Boot API

**Database:** MySQL

## 2.4. Assumptions and Dependencies

- Users have a stable internet connection
- The backend server and database are operational
- The system depends on external libraries for encryption and security
- User credentials are stored securely using password hashing

## 3. System Features and Functional Requirements

Describe each major feature of the system and its functional requirements.

### 3.1. Feature 1: User Registration

**Description:** This feature allows a guest user to create a new account by providing required registration information.

**Functional Requirements:**

- The system shall allow users to submit registration details
- The system shall validate the entered information
- The system shall store user data securely in the database

### 3.2. Feature 2: User Log in

**Description:** This feature allows registered users to authenticate themselves and gain access to protected features.

**Functional Requirements:**

- The system shall accept user login credentials
- The system shall verify credentials against stored records
- The system shall grant access only to authenticated users

### 3.3. Feature 3: User Log out

**Description:** This feature allows authenticated users to securely log out of the system.

**Functional Requirements:**

- The system shall allow users to log out at any time
- The system shall invalidate the active session or token
- The system shall redirect the user to the login page

## 4. Non-Functional Requirements

**Performance:** The system shall respond to user requests within an acceptable time

**Security:** User passwords shall be encrypted and sessions protected

**Usability:** The system shall be easy to use and understand

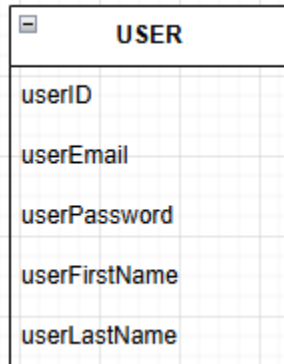
**Reliability:** The system shall function consistently without failure

**Maintainability:** The system shall be easy to update and extend

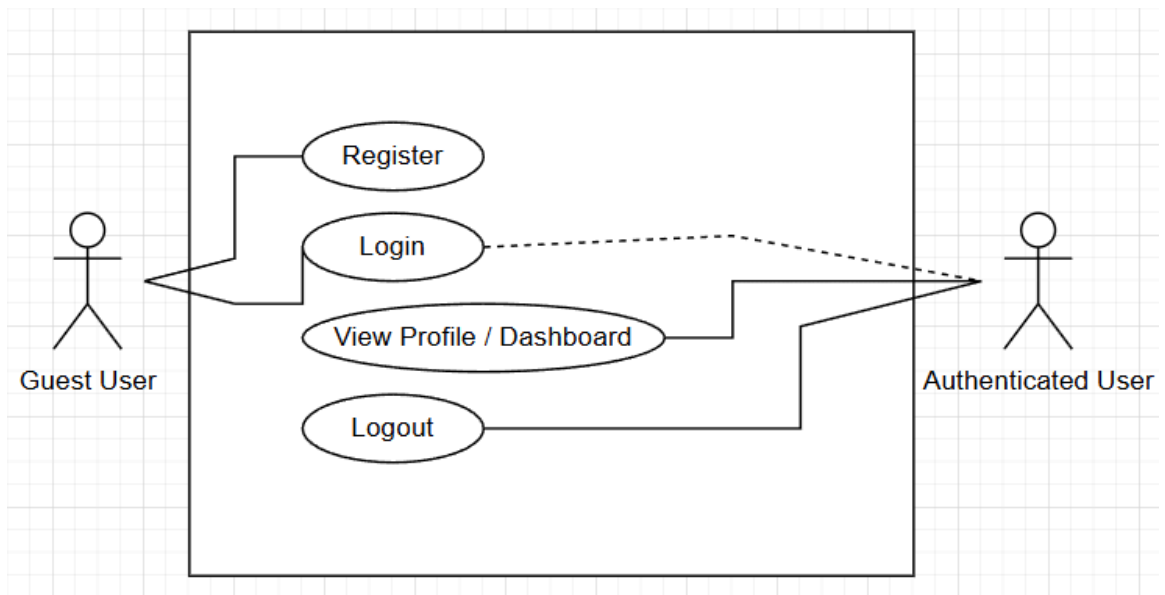
## 5. System Models (Diagrams)

*Insert the necessary diagrams for the system:*

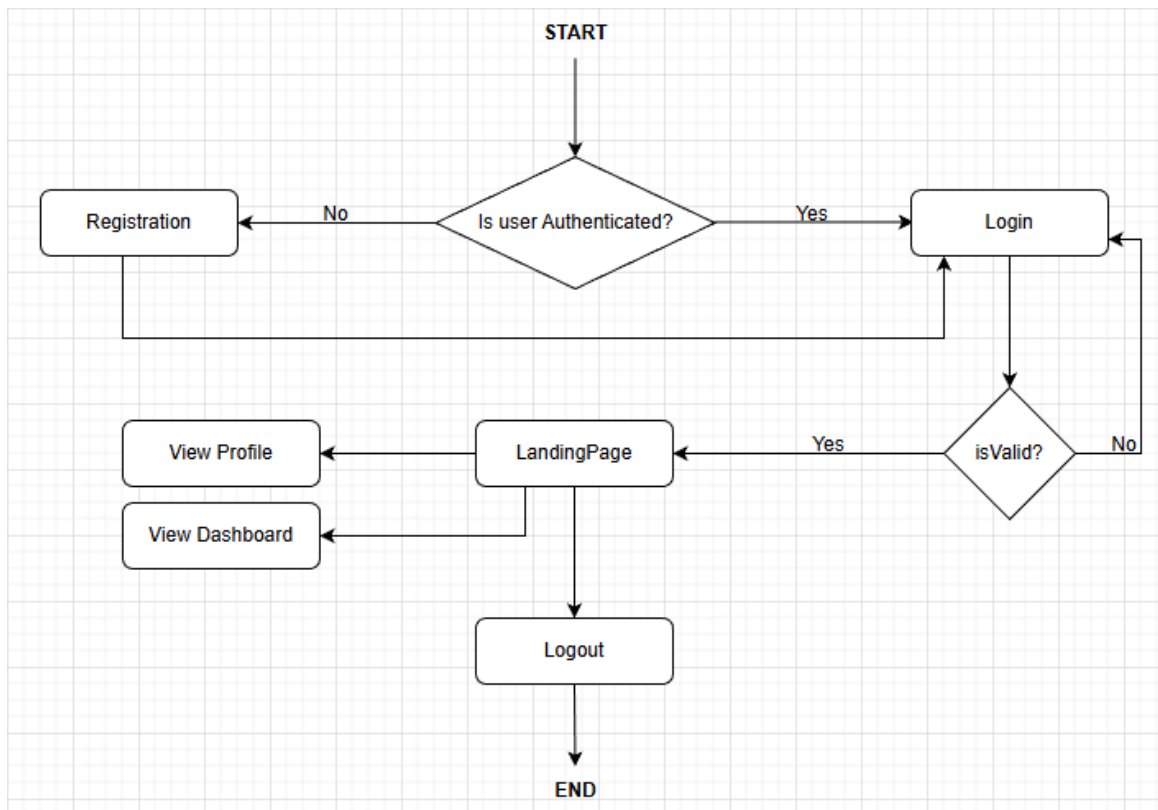
### 5.1. ERD



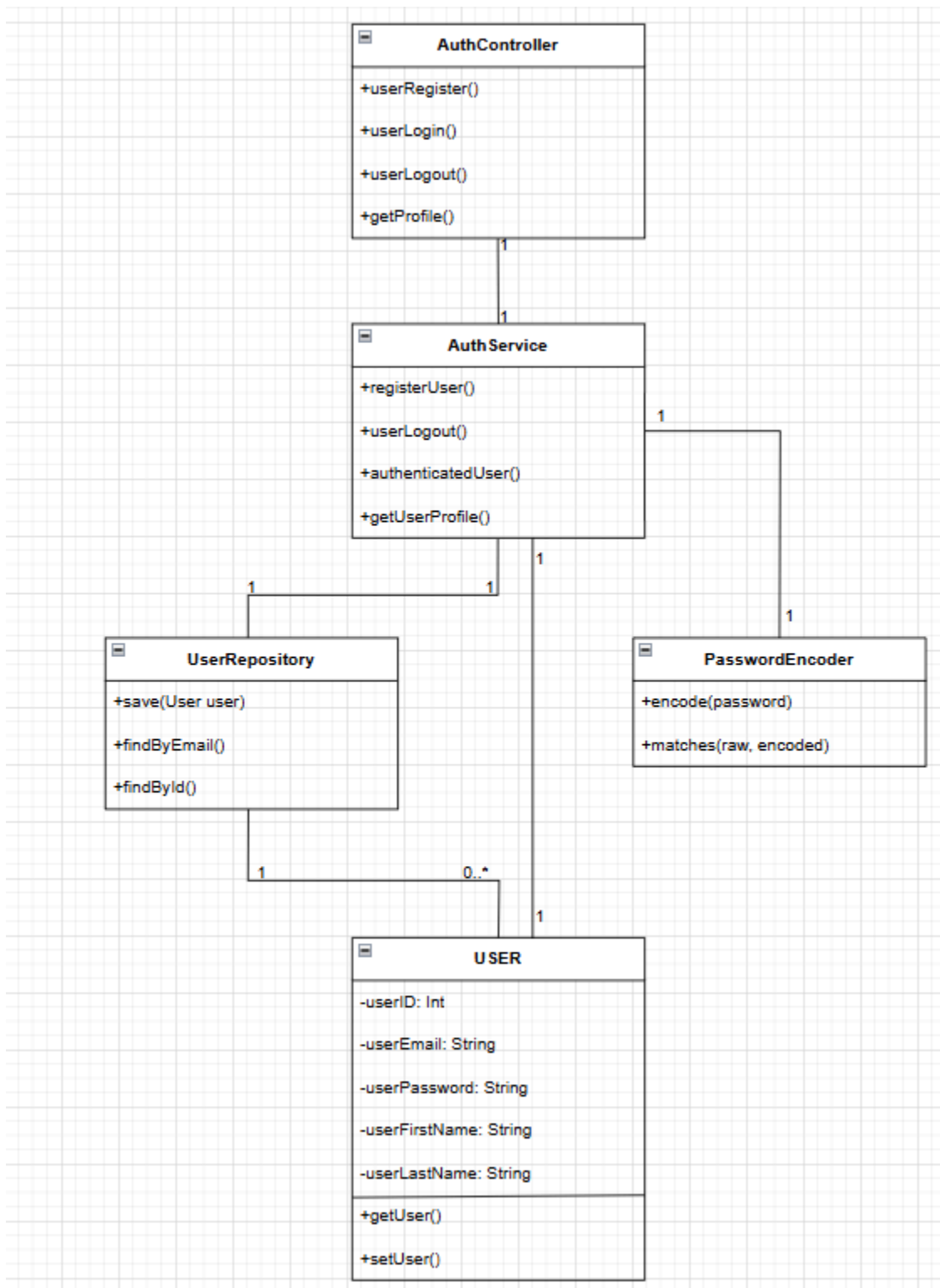
### 5.2. Use Case Diagram



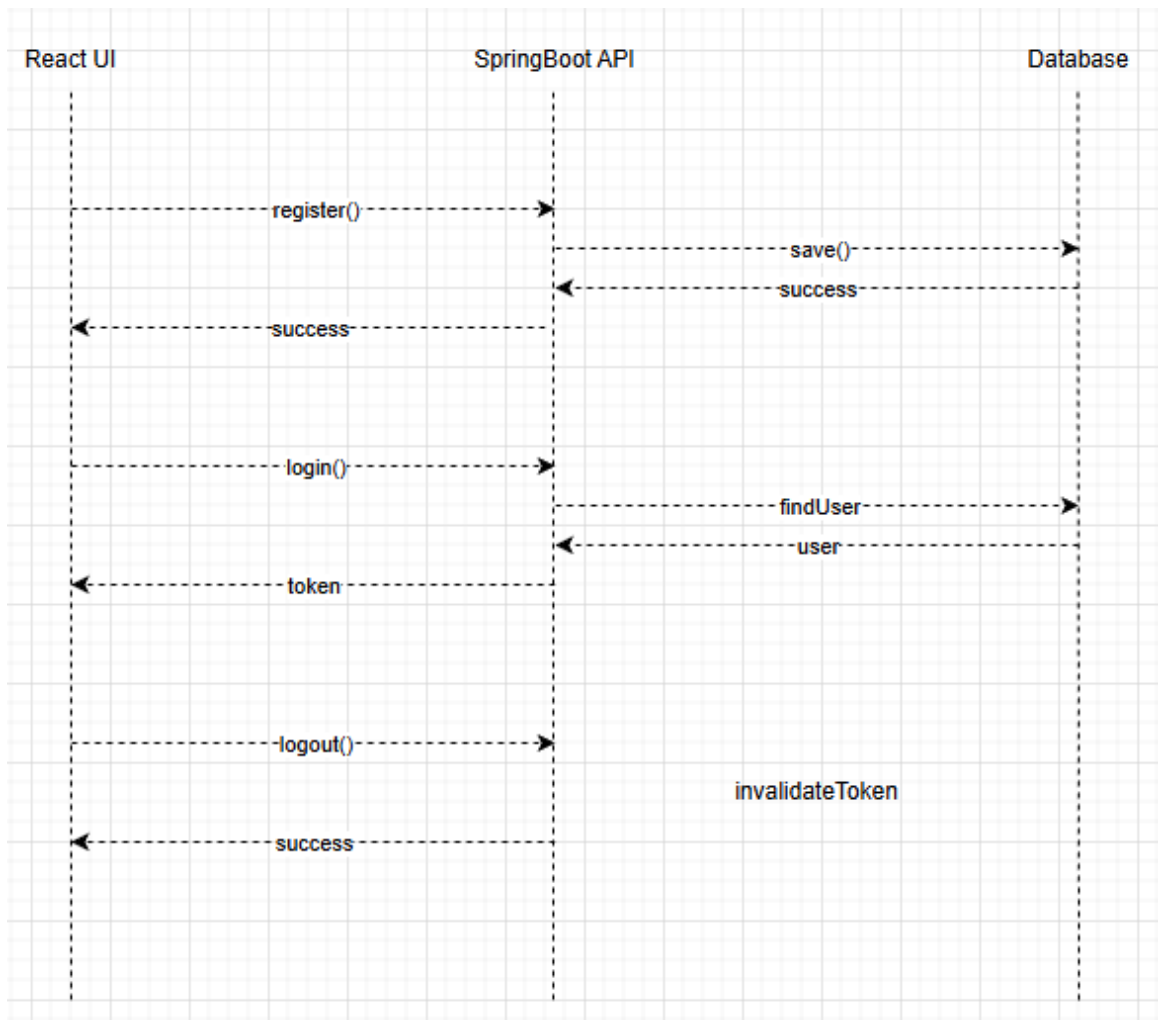
### 5.3. Activity Diagram



#### 5.4. Class Diagram



### 5.5. Sequence Diagram



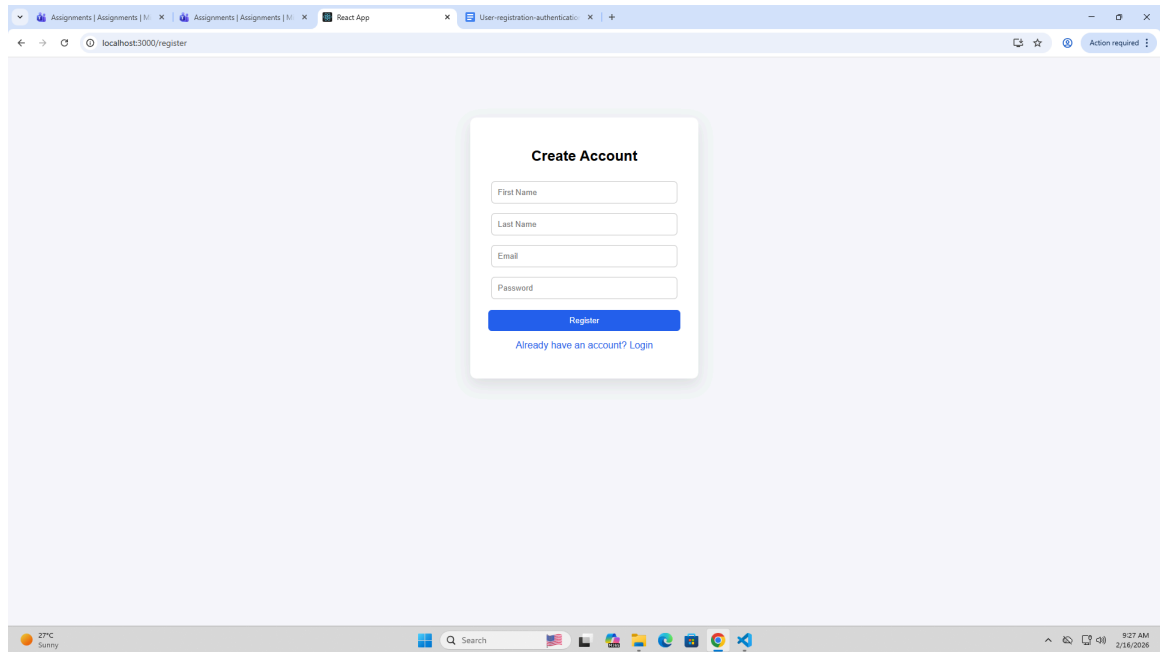
## 6. Appendices

This section contains additional information and supporting materials related to the system, including diagrams, references, and other relevant documents used to support the design and development of the User Authentication System.



## 7. Web Screenshots

### 7.1. Register Page



A screenshot of a web browser displaying the 'Create Account' registration page. The browser's address bar shows 'localhost:3000/register'. The page features a central white card with the title 'Create Account'. Below the title are four input fields: 'First Name', 'Last Name', 'Email', and 'Password'. A blue 'Register' button is positioned below these fields. At the bottom of the card, there is a link that reads 'Already have an account? Login'. The browser's taskbar at the bottom shows the system clock as 9:27 AM on 2/16/2026.

**Create Account**

First Name

Last Name

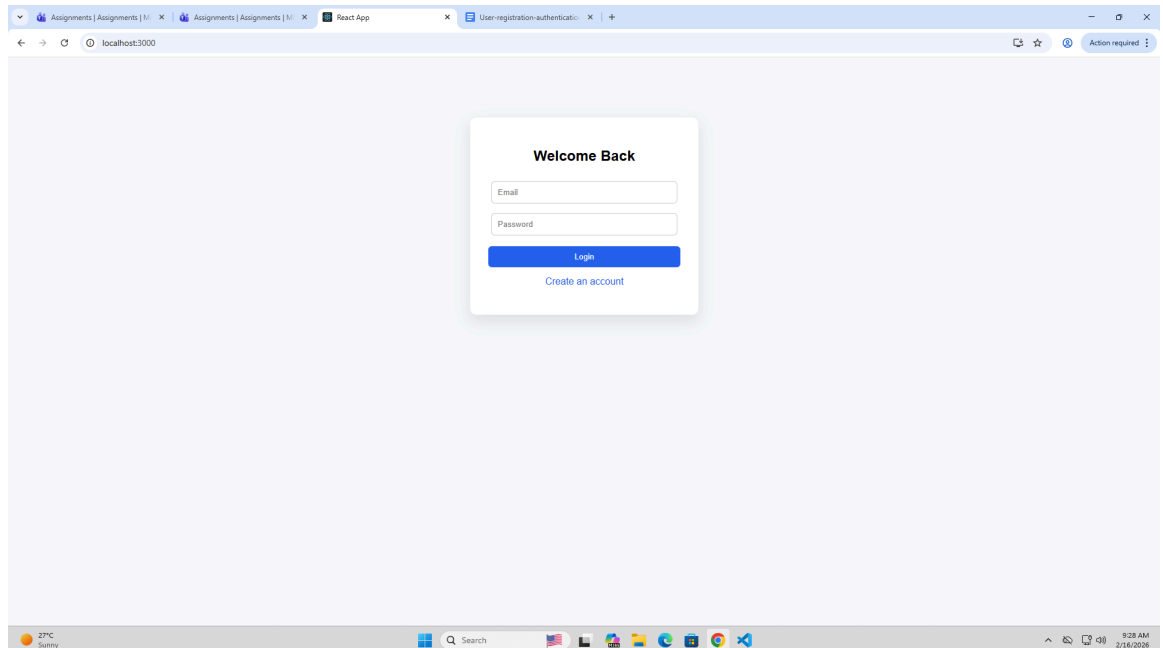
Email

Password

Register

[Already have an account? Login](#)

### 7.2. Login Page



A screenshot of a web browser displaying the 'Welcome Back' login page. The browser's address bar shows 'localhost:3000'. The page features a central white card with the title 'Welcome Back'. Below the title are two input fields: 'Email' and 'Password'. A blue 'Login' button is positioned below these fields. At the bottom of the card, there is a link that reads 'Create an account'. The browser's taskbar at the bottom shows the system clock as 9:28 AM on 2/16/2026.

**Welcome Back**

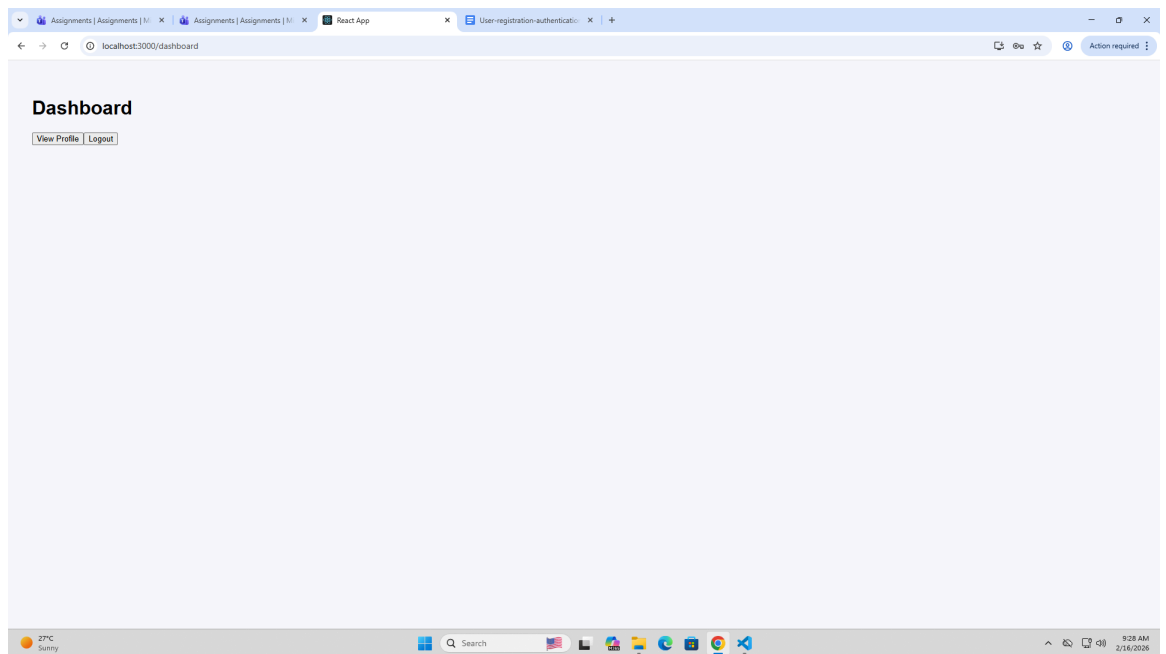
Email

Password

Login

[Create an account](#)

### 7.3. Dashboard Page w/ Logout Button



### 7.4. Profile Page

