



**CEBU INSTITUTE OF TECHNOLOGY**  
**UNIVERSITY**

# **IT342-Section SYSTEMS INTEGRATION AND ARCHITECTURE 1**

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## **FUNCTIONAL REQUIREMENTS SPECIFICATION (FRS)**

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Project Title: User Registration & Authentication

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Date of Submission: February 8, 2026

Version: 1

# Table of Contents

1.	Introduction.....	3
1.1.	Purpose.....	3
1.2.	Scope.....	3
1.3.	Definitions, Acronyms, and Abbreviations.....	3
2.	Overall Description.....	3
2.1.	System Perspective.....	3
2.2.	User Classes and Characteristics.....	3
2.3.	Operating Environment.....	3
2.4.	Assumptions and Dependencies.....	3
3.	System Features and Functional Requirements.....	3
3.1.	Feature 1:.....	3
3.2.	Feature 2:.....	3
4.	Non-Functional Requirements.....	3
5.	System Models (Diagrams).....	4
5.1.	ERD.....	4
5.2.	Use Case Diagram.....	4
5.3.	Activity Diagram.....	4
5.4.	Class Diagram.....	4
5.5.	Sequence Diagram.....	4
6.	Appendices.....	4

## **1. Introduction**

### **1.1. Purpose**

This document specifies requirements for the User Authentication System (Registration, Login, Logout). It serves as a blueprint for developers during implementation.

### **1.2. Scope**

Included:

- User registration with validation
- Secure login with JWT authentication
- Profile/dashboard access for authenticated users
- Secure logout with token invalidation
- Route protection for unauthenticated access
- Password hashing
- Session management

Excluded (Future Phases):

- Password recovery/reset
- Email verification
- Multi-factor authentication (MFA)
- Social login (Google/Facebook)
- Role-based access control (RBAC) beyond basic auth

### **1.3. Definitions, Acronyms, and Abbreviations**

List and define important terms used in this document.

## **2. Overall Description**

### **2.1. System Perspective**

Describe how the system fits into a larger context or environment.

### **2.2. User Classes and Characteristics**

Identify the different types of users and their characteristics.

### **2.3. Operating Environment**

Specify the hardware, software, and tools required to operate the system.

### **2.4. Assumptions and Dependencies**

List any assumptions and external dependencies that may affect the system.

## **3. System Features and Functional Requirements**

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

### **3.1. Feature 1:**

Description:

Functional Requirements:

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### **3.2. Feature 2:**

Description:

Functional Requirements:

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## **4. Non-Functional Requirements**

Specify system quality attributes such as performance, security, usability, reliability, etc.

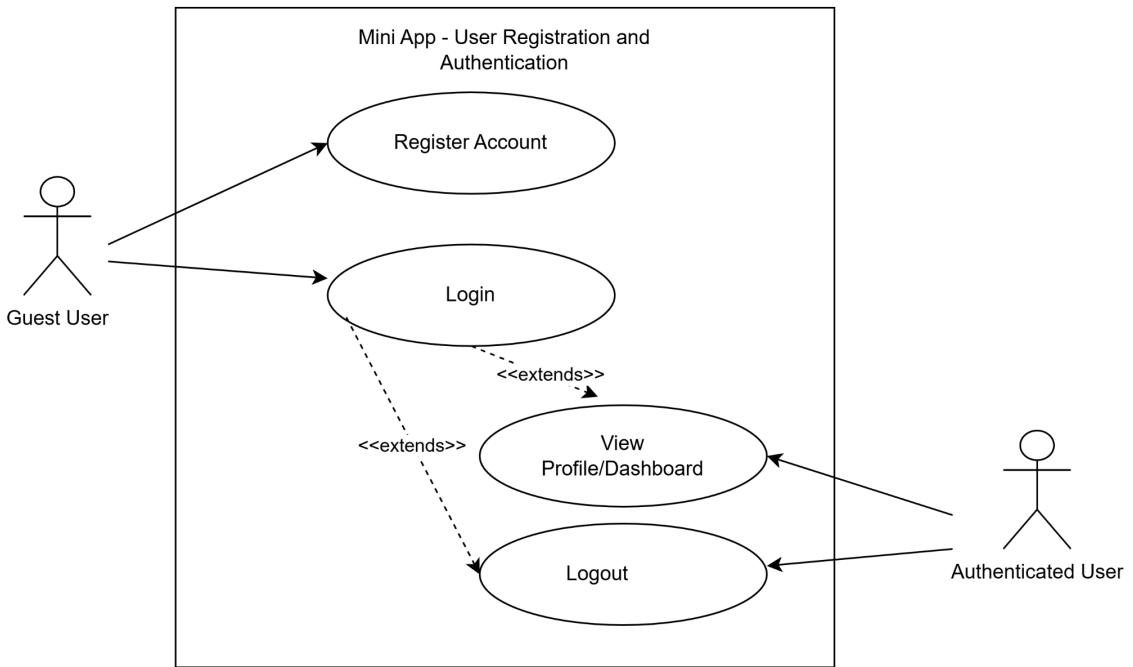
## **5. System Models (Diagrams)**

*Insert the necessary diagrams for the system:*

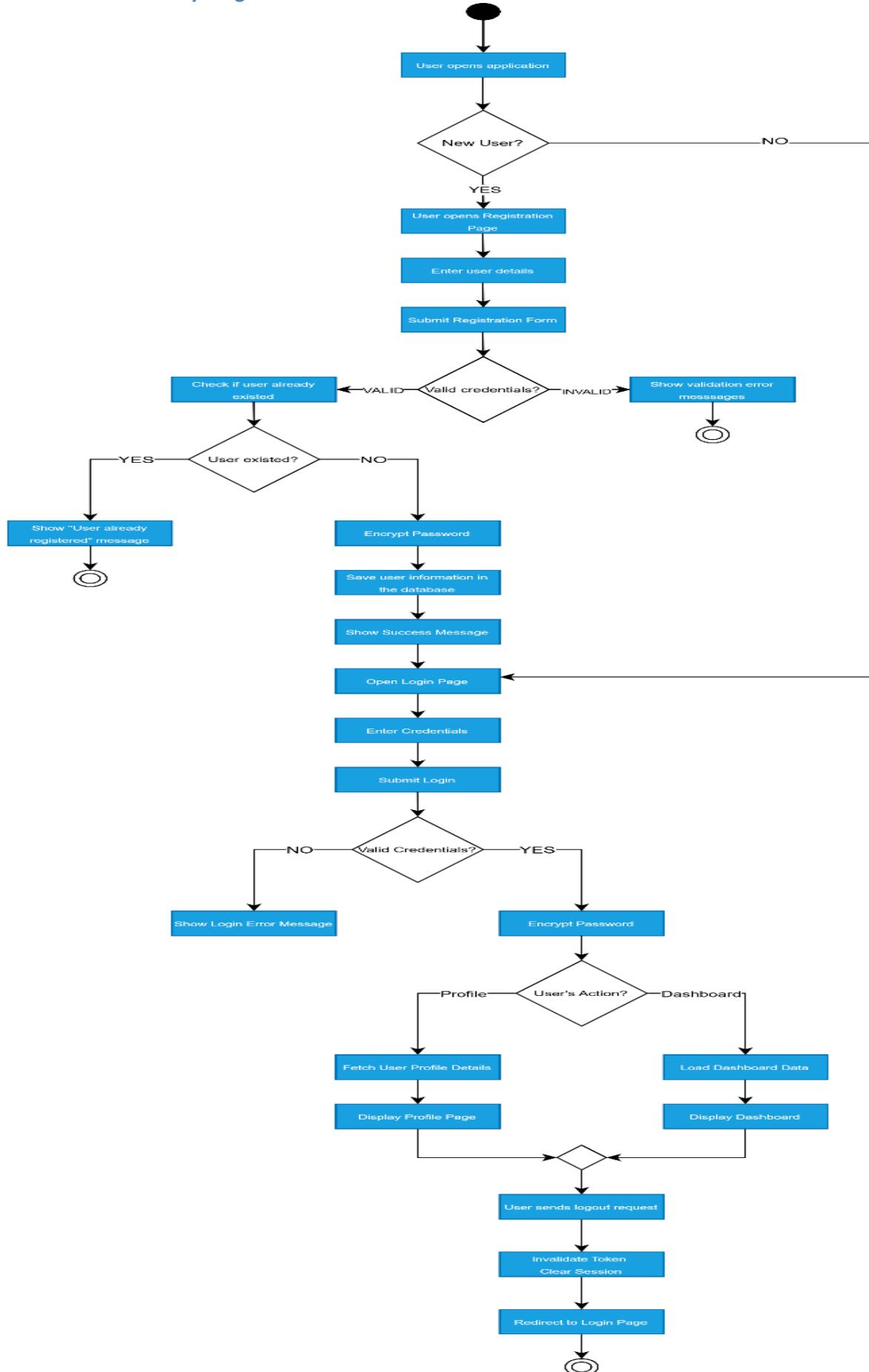
### **5.1. ERD**

USER
user_id (PK) username email password first_name last_name is_active role created_at updated_at last_login

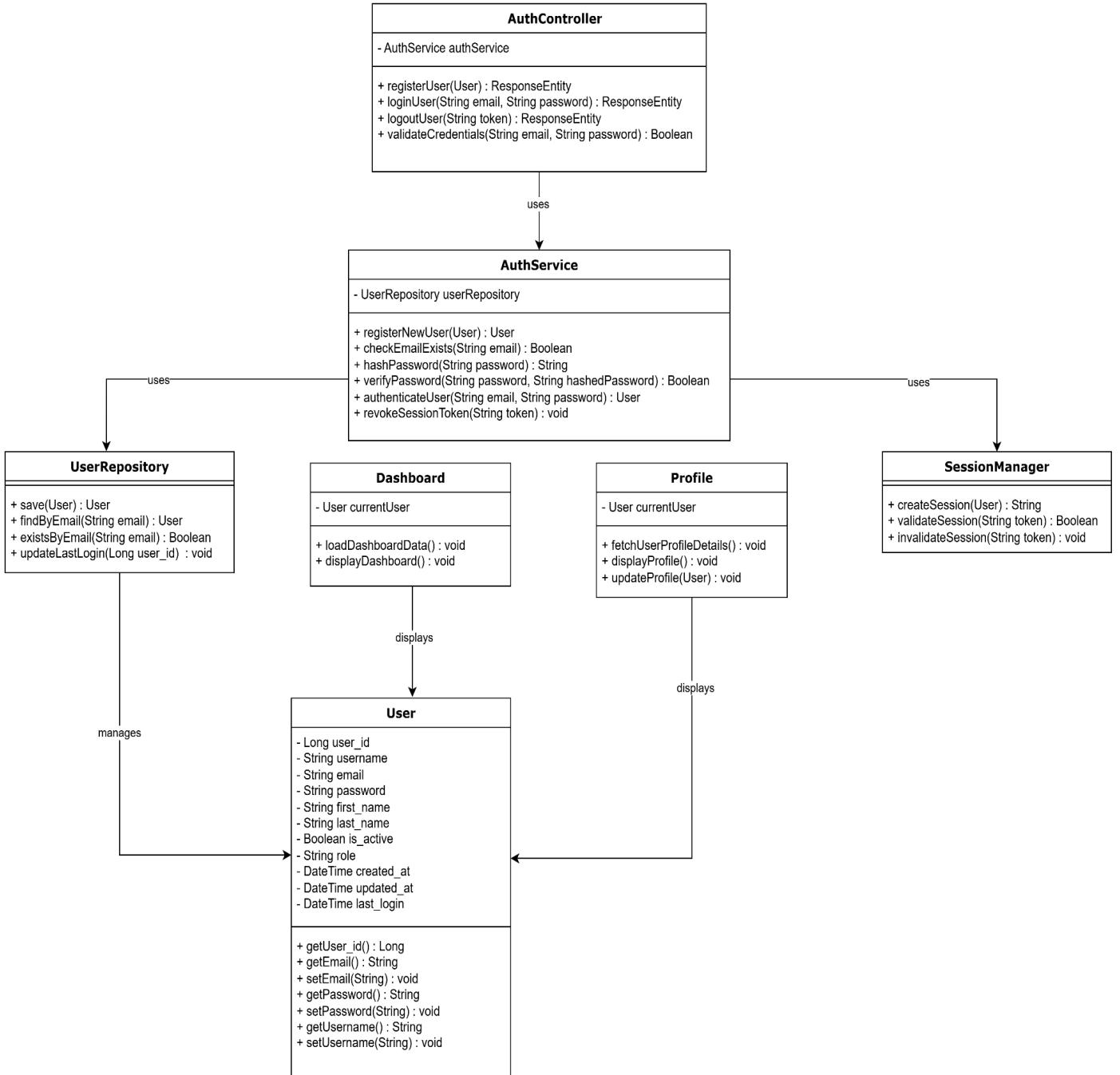
## 5.2. Use Case Diagram



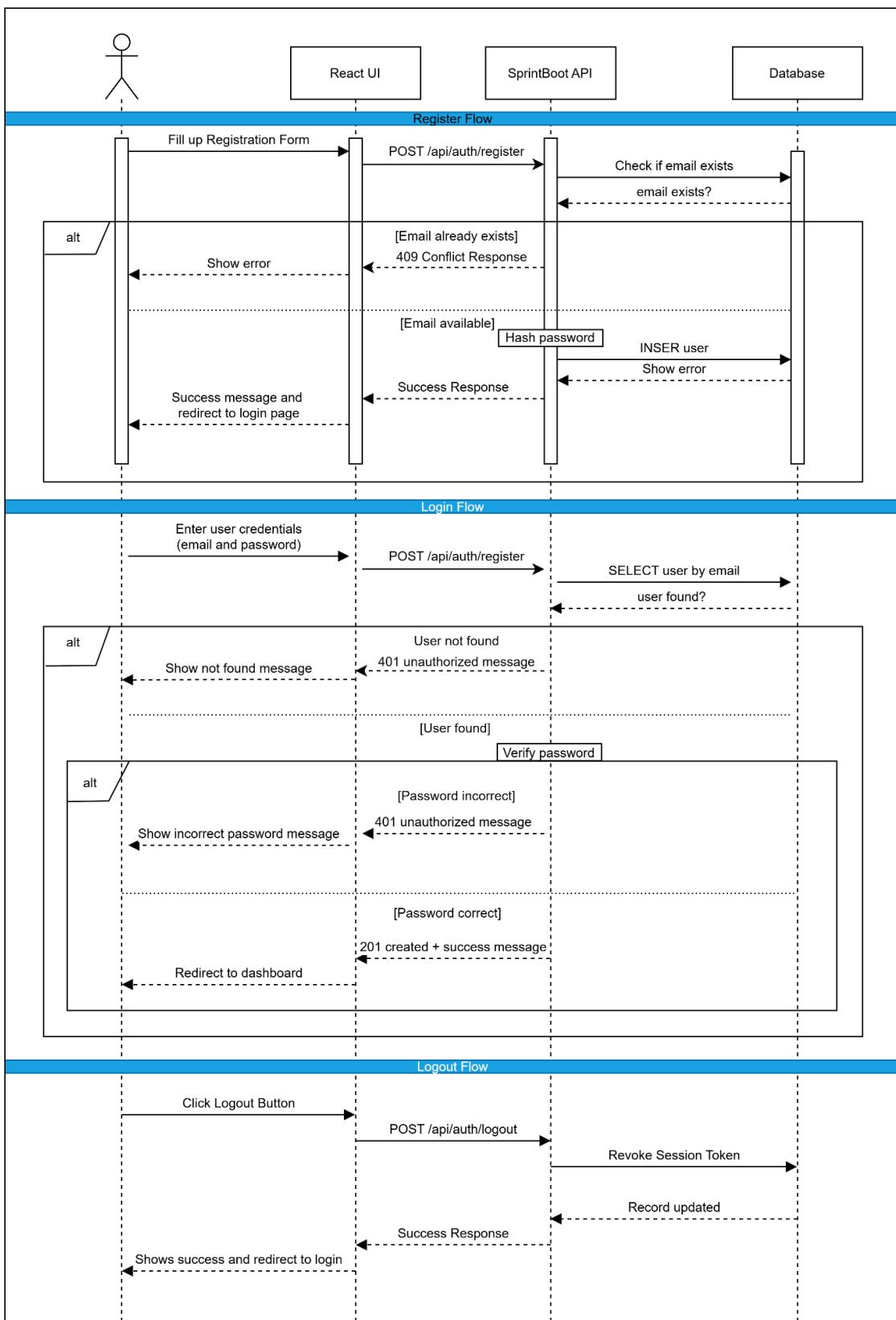
### 5.3. Activity Diagram



## 5.4. Class Diagram



## 5.5. Sequence Diagram



## **6. Appendices**

Include any additional information, references, or support materials.