



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

IT342-G01

SYSTEMS INTEGRATION AND ARCHITECTURE 1

FUNCTIONAL REQUIREMENTS SPECIFICATION (FRS)

Project Title: WorkForce Portal

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1. Introduction

1.1. Purpose

The purpose of WorkForce Portal is to provide robust, scalable, and secure centralized platform for workforce management and authentication. The system serves as the primary gateway for employees to access resources while simultaneously providing management with real-time data regarding personnel availability.

Indented Audience

This document is prepared for the following audience:

- **Stakeholders/Management:** To review how the portal automates attendance and status tracking for the employees in the organization's workforce.

1.2. Scope

In-Scope

- **User Authentication:** Provide a secure registration and login interface for employees using encrypted password storage.
- **Real-time Status Management:** Automatically update a user's record in the database to "Active" upon a successful login and "Offline" upon a manual logout.
- **Role-Based Logic:** Differentiate between "Staff" and "Admin" roles, ensuring users only access data relevant to their permission level.
- **Profile Visualization:** Allow employees to view their personal details and current check-in status via a dedicated dashboard.

Out-of-Scope

- **Payroll Processing:** The system will not calculate salaries, taxes, or bank transfers.
- **Advanced Scheduling:** While the system tracks *when* a user is active, it does not include a calendar for shift scheduling or leave applications.

1.3. Definitions, Acronyms, and Abbreviations

- **JWT (JSON Web Token):** A compact, URL-safe means of representing claims to be transferred between two parties.
- **LMS (Leave Management System):** The module responsible for handling time-off requests.
- **Clock-In/Out:** The action of recording the start and end of a work session.

2. Overall Description

2.1. System Perspective

The WorkForce Portal is a standalone centralized platform designed to digitize internal administrative tasks. It replaces manual logbooks and physical bulletin boards with a secure, web-accessible interface. It operates as an independent ecosystem where attendance data and leave statuses are managed in a single relational database.

2.2. User Classes and Characteristics

- **Employees:** Staff members who use the system daily to log hours, check their personal attendance history, file leave requests, and read company news.
- **Management/Admins:** Higher-ups who use the system to oversee staff attendance, approve or deny leave requests, and post official announcements.

2.3. Operating Environment

- Backend Framework: Spring Boot 3.x (Java 17+)
- Database: MongoDB Atlas
- Security: Spring Security with JWT

2.4. Assumptions and Dependencies

- Connectivity: The local Spring Boot application must have an active internet connection to reach the MongoDB Atlas cluster via the connection string.
- Database Driver: The application uses the MongoDB Java Driver to handle BSON conversions.
- Local Clock: While the database is remote, the Spring Boot server time will serve as the reference for attendance timestamps.

3. System Features and Functional Requirements

3.1. Feature 1: Digital Attendance Tracking

Description: A digitized time-clock managed via Spring Boot REST controllers and MongoDB repositories.

Functional Requirements:

- The system shall map attendance records to a Attendance collection using the @Document annotation.
- The system shall use LocalDateTime to capture check-in and check-out events accurately.
- The system shall implement a Repository interface to fetch logs by userId for the personal dashboard.

3.2. Feature 2: Leave Request Management

Description: A workflow for filing and reviewing time-off requests using Spring Boot service logic.

Functional Requirements:

- The system shall allow employees to POST a leave request document containing start/end dates.
- The system shall use an Enum for leave status (PENDING, APPROVED, DENIED) to ensure data consistency.
- The system shall provide a PATCH endpoint for admins to update the status of specific leave documents.

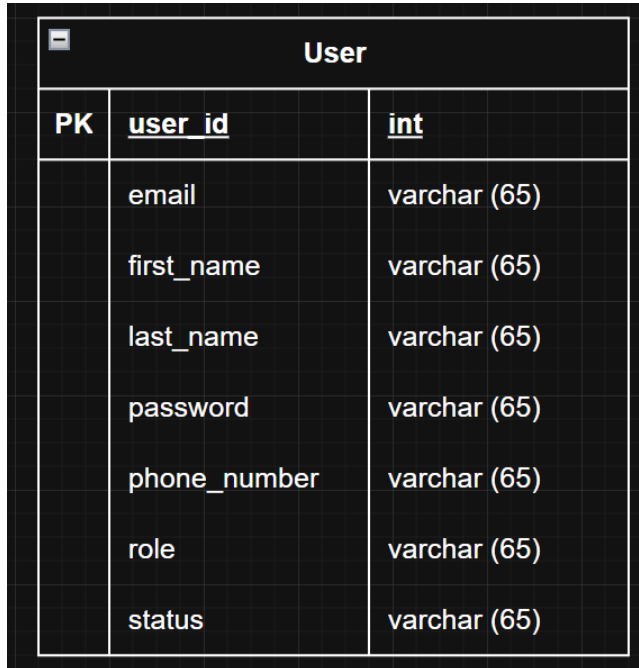
4. Non-Functional Requirements

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

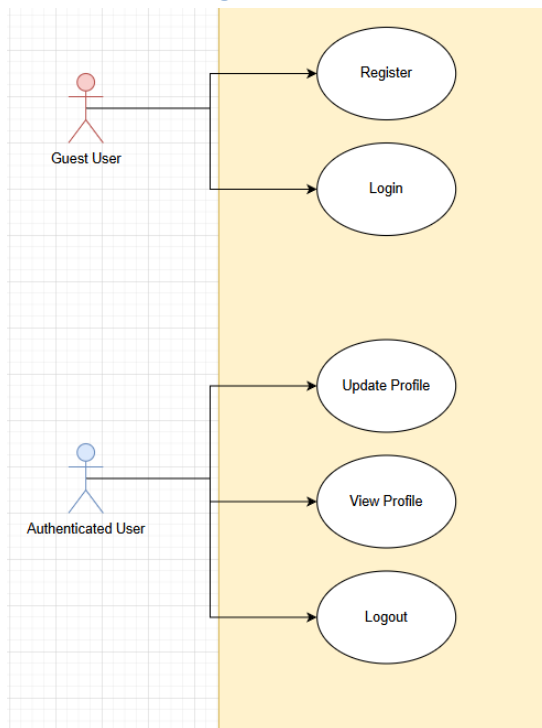
5. System Models (Diagrams)

Insert the necessary diagrams for the system:

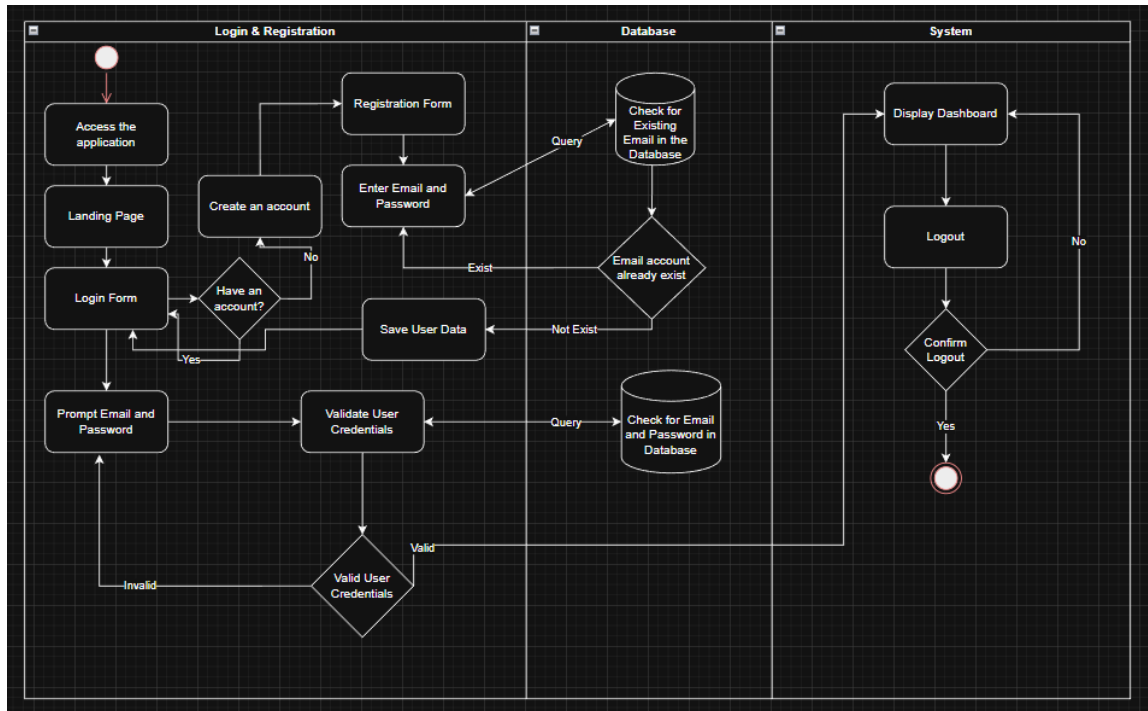
5.1. ERD



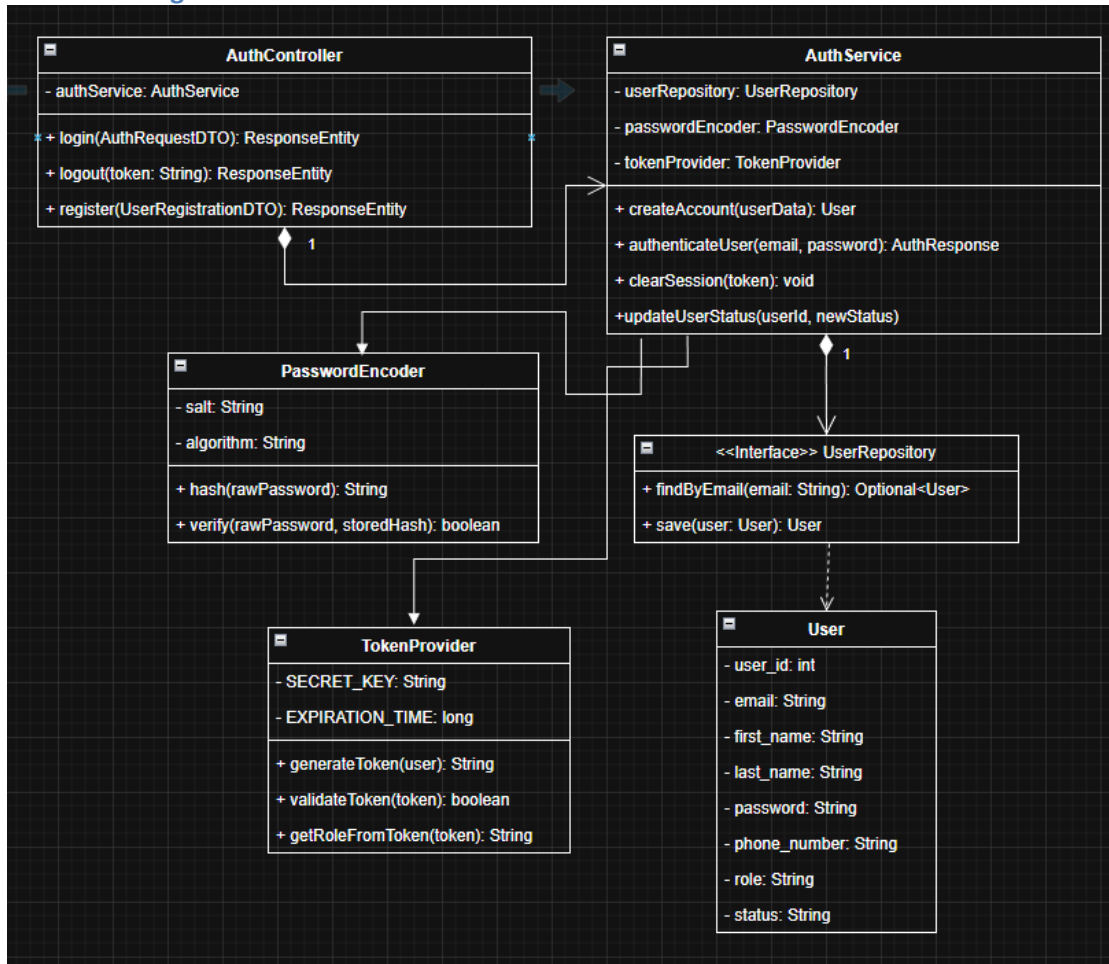
5.2. Use Case Diagram



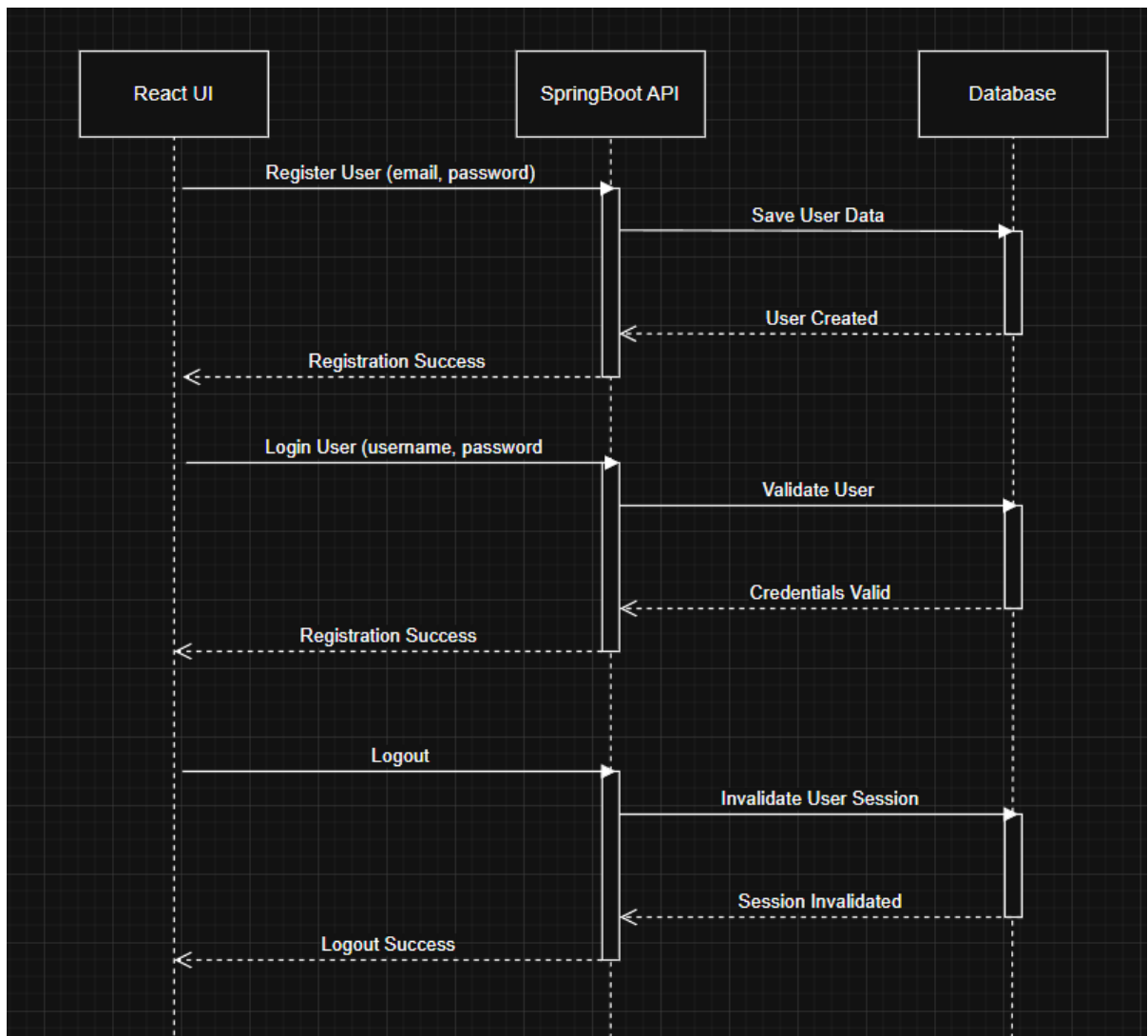
5.3. Activity Diagram



5.4. Class Diagram

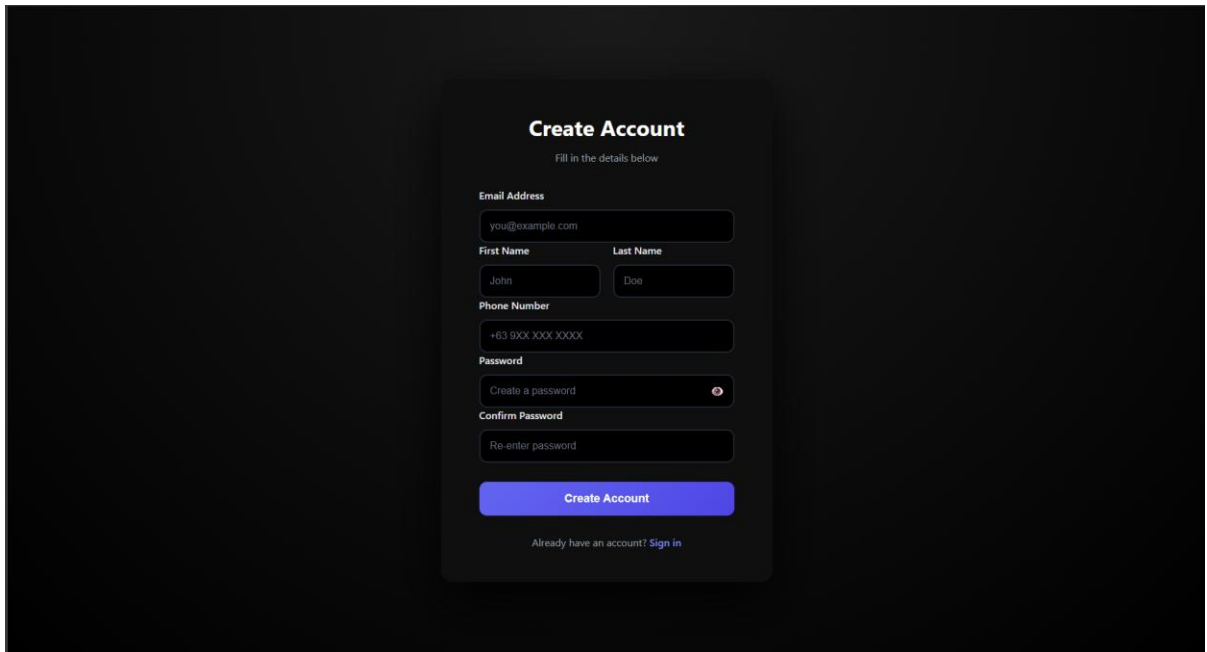


5.5. Sequence Diagram



6. Screenshots of the Web UI

6.1 Register UI




Create Account
Fill in the details below

Email Address

First Name **Last Name**

Phone Number

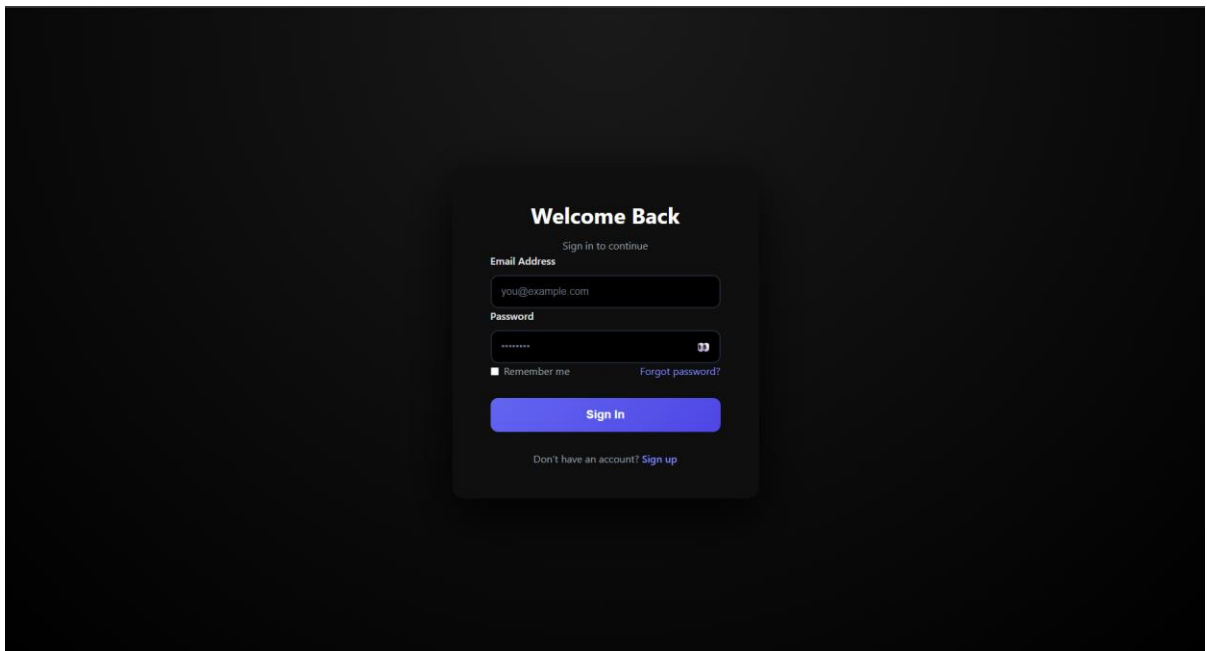
Password
 

Confirm Password

Create Account


Already have an account? [Sign in](#)

6.2 Login UI (Web)



Welcome Back
Sign in to continue

Email Address

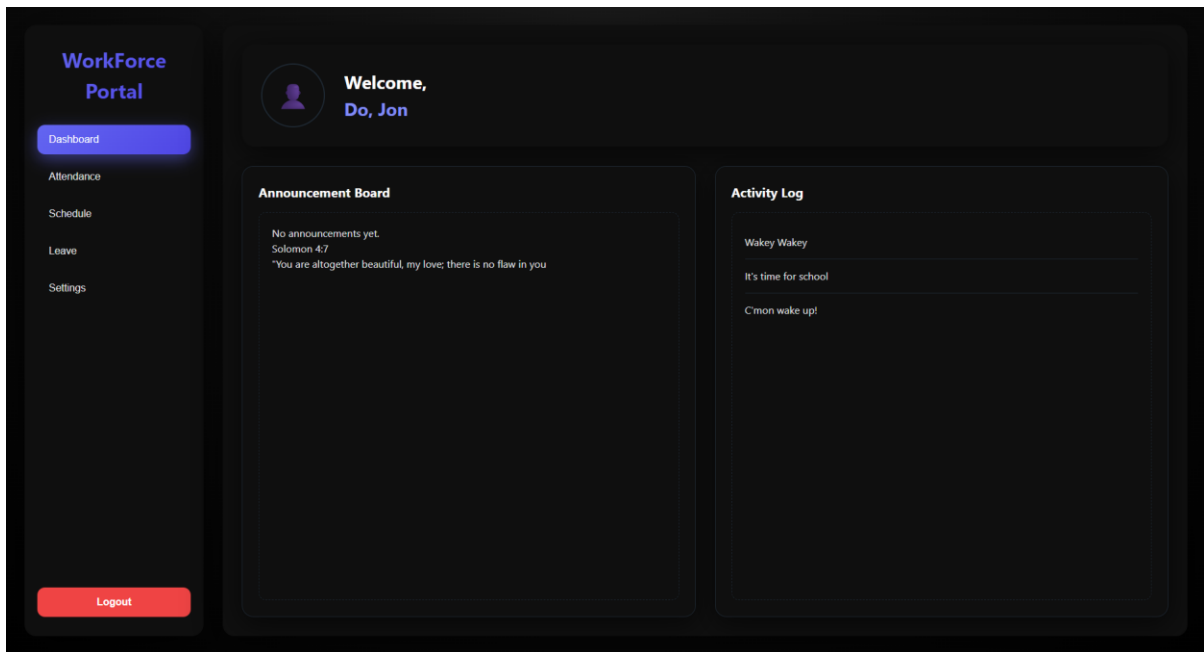
Password
 

☐ Remember me [Forgot password?](#)

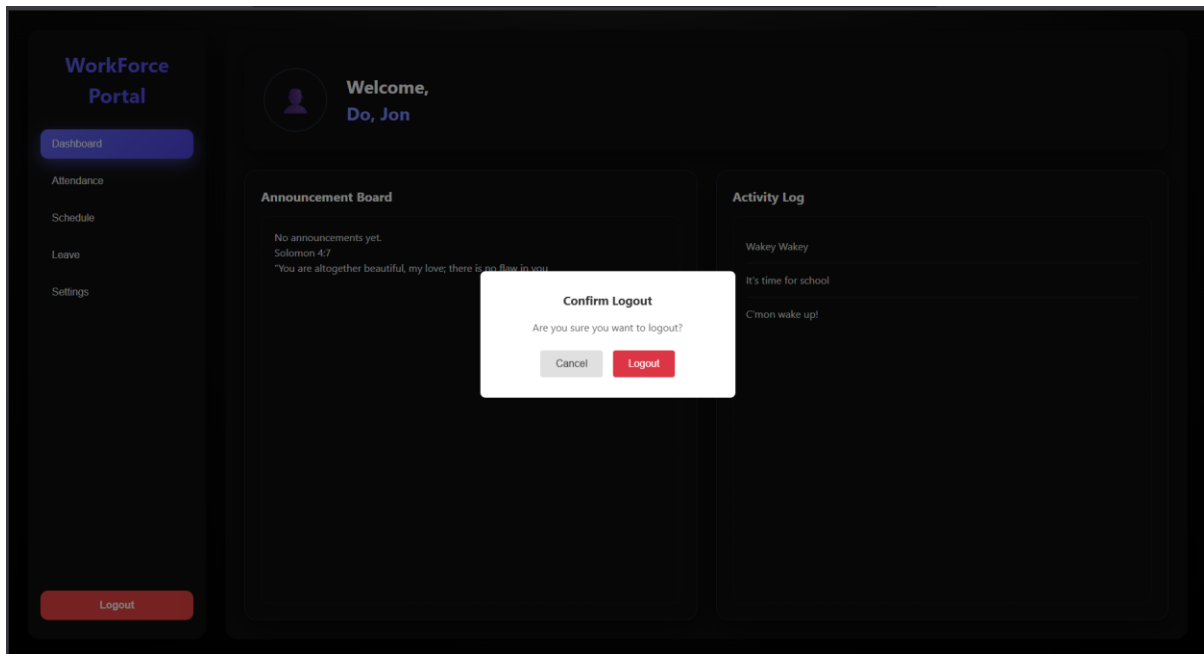
Sign In

Don't have an account? [Sign up](#)

6.3 Dashboard/Logout UI (Web)

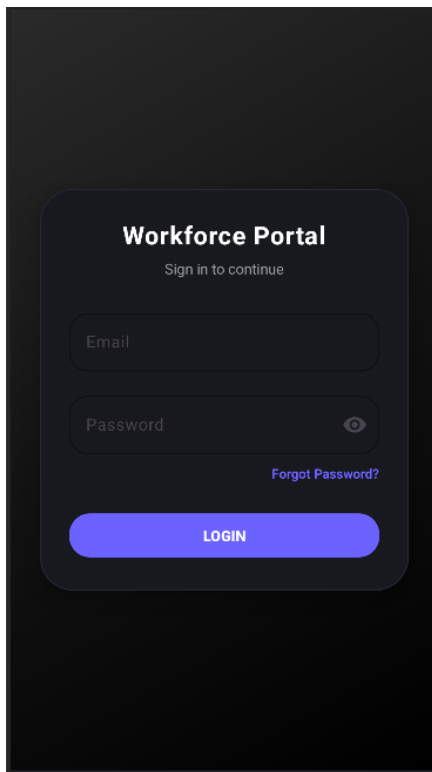


6.4 Logout UI (Web)



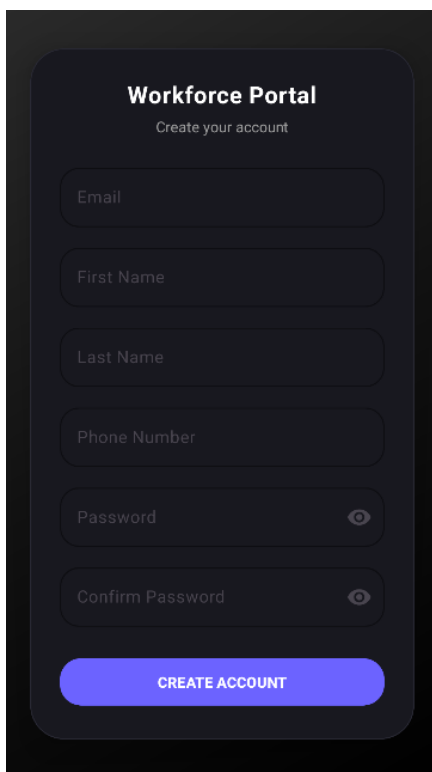
7. Screenshot of Mobile UI

7.1 Login UI



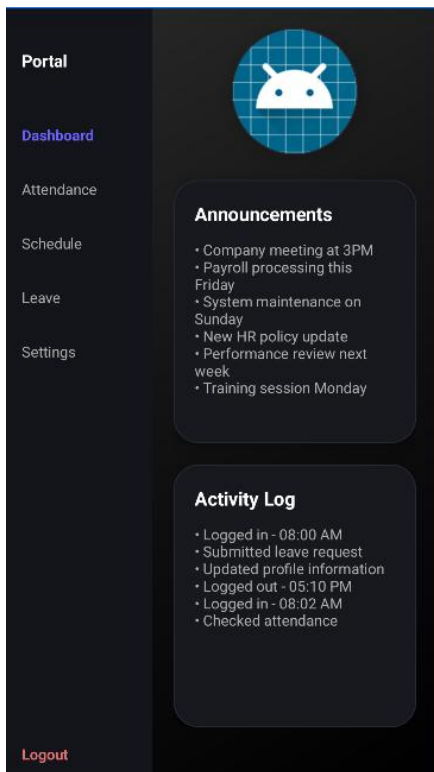
A screenshot of a mobile application's login screen. The background is dark gray. In the center, there is a white rounded rectangle containing the following elements: the title "Workforce Portal" in bold black text, the subtitle "Sign in to continue" in smaller black text, an "Email" input field, a "Password" input field with a toggle icon on the right, a "Forgot Password?" link in red text, and a large blue rounded button labeled "LOGIN" in white capital letters.

7.2 Register UI

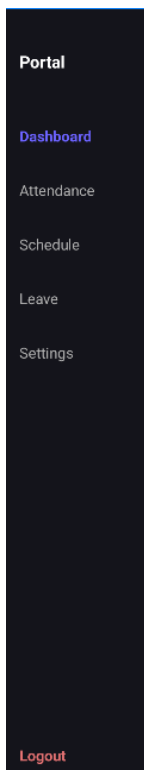


A screenshot of a mobile application's registration screen. The background is dark gray. In the center, there is a white rounded rectangle containing the following elements: the title "Workforce Portal" in bold black text, the subtitle "Create your account" in smaller black text, an "Email" input field, a "First Name" input field, a "Last Name" input field, a "Phone Number" input field, a "Password" input field with a toggle icon on the right, a "Confirm Password" input field with a toggle icon on the right, and a large blue rounded button labeled "CREATE ACCOUNT" in white capital letters.

7.3 Dashboard UI



7.4 Logout UI



8. Appendices

Include any additional information, references, or support materials.