

JAZBA

:SUBMITTED BY:

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:SECTION:

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1. Introduction

1.1 Purpose

The purpose of the JAZBA Fitness App is to provide a comprehensive fitness tracking solution tailored for fitness enthusiasts. It allows users to track workouts, set and achieve fitness goals, and view progress reports. The app also enhances user motivation with personalized features such as achievements and milestones. The admin, being the app administrator, handles the operational aspects, ensuring the app runs smoothly and users have a seamless experience.

1.2 Product Scope

JAZBA Fitness App is designed to:

Help users track and analyze workouts, set fitness goals, and monitor progress. Promote consistency in fitness routines through reminders, challenges, and milestones. Foster engagement by offering achievements, social sharing, and motivational tools. Support scalability and provide flexibility with premium membership options and external integrations.

By integrating fitness tracking and user engagement features, JAZBA ensures a comprehensive platform for fitness enthusiasts.

1.3 Title

JAZBA Fitness App: A Comprehensive Fitness Tracking Solution for Enthusiasts The app provides a streamlined platform for tracking workouts, setting fitness goals, and enhancing motivation, bridging the gap between user engagement and fitness progress.

1.4 Objectives

The JAZBA Fitness App aims to achieve:

Streamlined fitness tracking, including workout logging and progress monitoring.

Tools for setting and achieving fitness goals, helping users stay consistent.

Enhanced engagement with features like reminders, achievements, and social sharing.

Premium membership options and integration with external systems for added functionality.

1.5 Problem Statement

Fitness enthusiasts often face challenges in tracking progress, staying consistent, and maintaining motivation. The JAZBA Fitness App addresses these issues by:

Providing intuitive tools for tracking workouts and setting personal fitness goals. Offering personalized reminders, milestones, and achievements to motivate users.

The app's design ensures that fitness enthusiasts can maintain their routines and see consistent improvement

2. Overall Description

2.1 Product Perspective

The JAZBA Fitness App is a self-contained system designed to meet the fitness tracking and gym management needs. It integrates user modules (for tracking workouts and progress) with admin modules (for managing user accounts and transactions), and external systems like payment gateways and wearables.

2.2 Product Functions

User Functions:

- Register/Login and manage profiles.
- Set fitness goals and track progress.
- Log workouts (custom or premium).
- Receive reminders and share progress.
- Upgrade to premium membership for better workout presets
- See Relevant Notifications
- See Extended Stats relating to Workouts Logged
- See Achievements regarding to Workouts Logged

Admin Functions:

- Manage user accounts and send notifications.
- Oversee transactions and generate reports.
- Configure system settings.

2.3 List of Use Cases

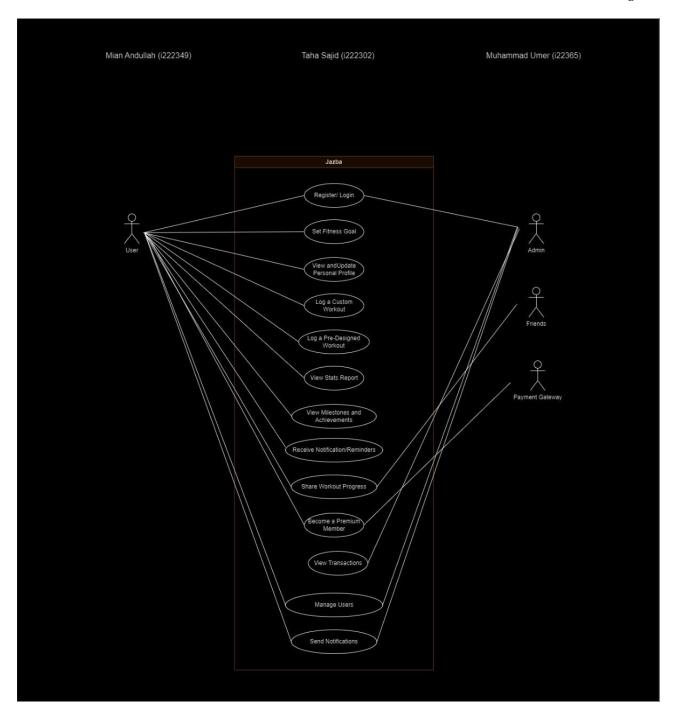
- Register/Log in
- Set Fitness Goal
- View and Update Personal Profile
- Create a Workout Preset
- Log a Custom Workout
- Log a Pre-Designed Workout
- View Stats Report
- View Milestones/Achievements
- Become a Premium Member

- Receive Notifications and Reminders
- Share and See Workout Progress
- Manage User Accounts
- Send Notifications

2.4 Extended Use Cases

- Register/Log in
- Set Fitness Goal
- View and Update Personal Profile
- Create a Workout Preset
- Log a Custom Workout
- Log a Pre-Designed Workout
- View Stats Report
- View Milestones/Achievements
- Receive Notifications and Reminders
- Share and See Workout Progress
- Become a Premium Member
- Manage User Accounts
- Send Notifications to Users
- Admin View Transactions

2.5 Use Case Diagram



3. Other Nonfunctional Requirements

3.1 Performance Requirements

No specific requirements

3.2 Safety Requirements

Data Integrity: The system must implement automatic backups and error recovery. **Fault Tolerance**: Core functions like workout tracking work functional offline

Authentication: Use secure authentication and hashing for sensitive information in database like

passwords.

Role-Based Access: Admin-only access to user management and transactions.

Data Checks: No faulty inputs

3.4 Software Quality Attributes

Usability: Intuitive navigation and accessible features. **Maintainability**: Modular and well-documented code.

Portability: Runs Desktop.

Reliability: 99.9% uptime for minimal disruption.

3.5 Business Rules

Membership Management: Premium members access advanced features. **Role Authorization:** Admins can modify accounts and manage transactions.

Data Privacy: User data is not shared without consent.

3.6 Operating Environment

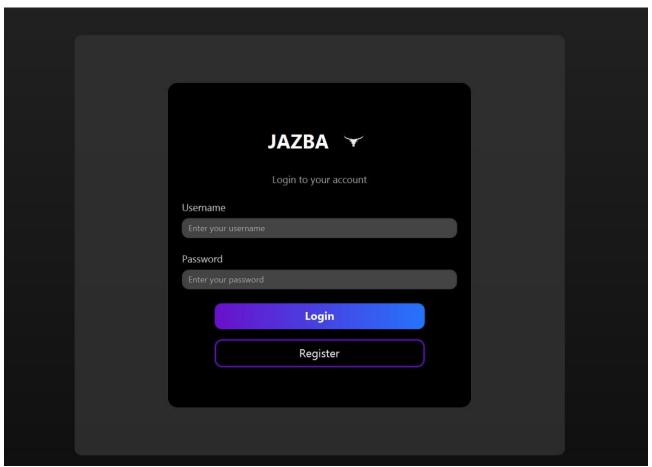
Hardware: Minimum 2GB RAM, dual-core processor, 1GB free storage.

Operating System: Windows 11, compatible with Java runtime environments (JRE) 8 or higher.

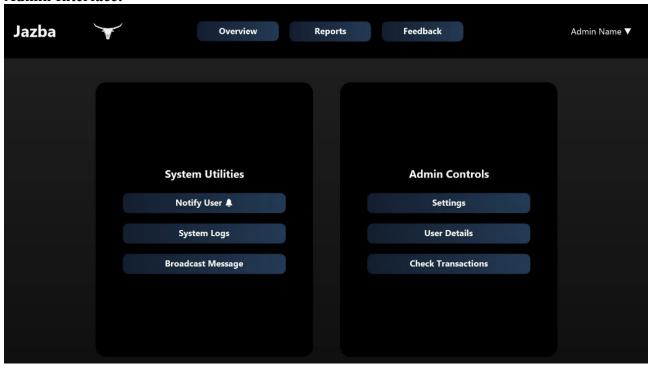
Software Dependencies: Java Development Kit (JDK) 8+

3.7 UserInterface

Account Creation Interface: Form for new users with fields for username, email, password, and profile details (height, weight, age, fitness level). Features buttons for "Register" and "Back." **Login Interface:**



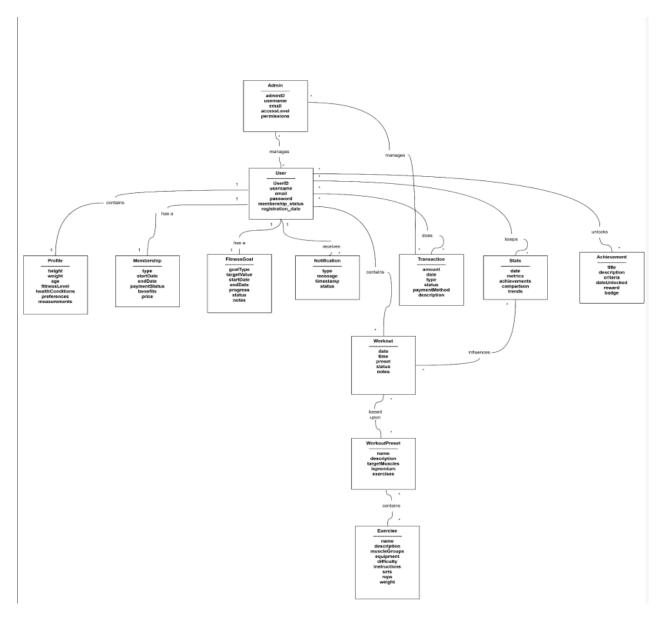
Admin Interface:



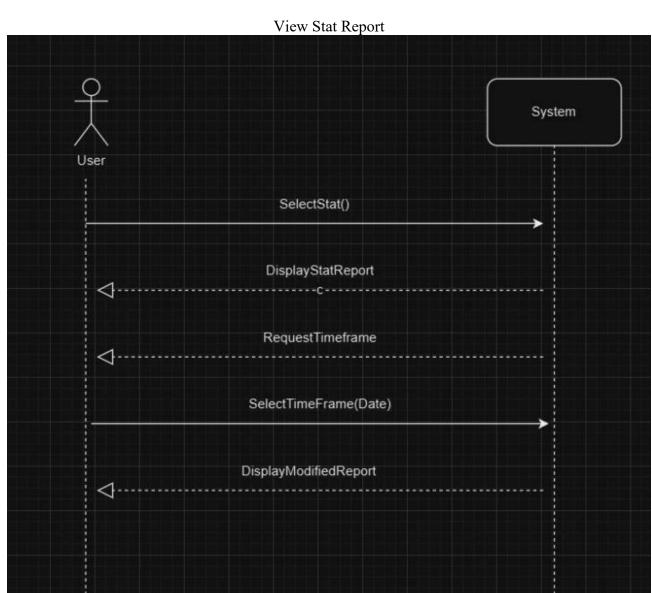
Registration Interface:

Create Your Account	
Username Enter your username	
Email Enter your email	
Password Enter your password	
Profile Information	
Height (cm) Enter your height in cm	
Weight (kg) Enter your weight in kg	
Age Enter your age	
Fitness Level Beginner, Intermediate, Advanced	
Register Back	

4. Domain Model

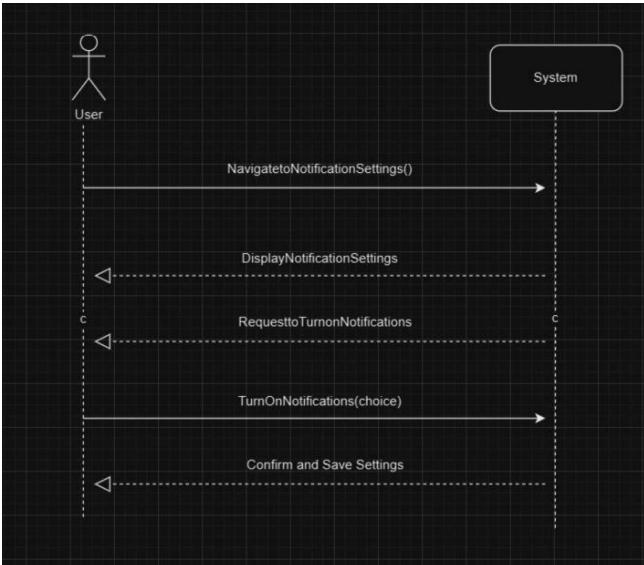


5. System Sequence Diagram

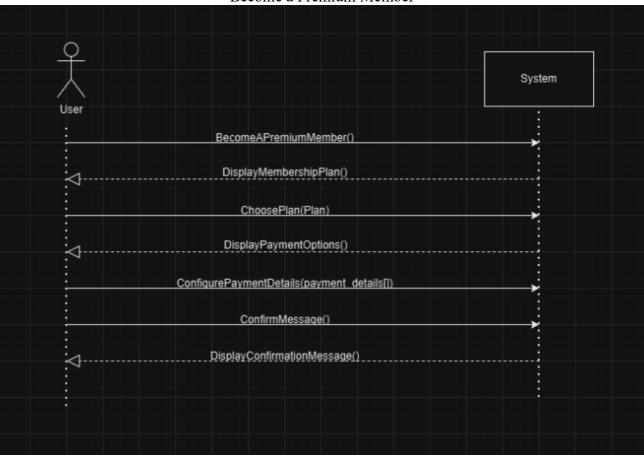


Pre Designed Workout System User NavigatetoLogWorkout(Pre_DesignedWorkout) **ShowWorkouts** ChooseWorkout() DisplayWorkoutforReview Loop ReviewReps(No_of_Reps) ConfirmandLog() SendConfirmation

Receive Notifications



Become a Premium Member



Manage User Accounts

System

ManageUsers()

DisplayListOfMembers()

SelectMember(member id)

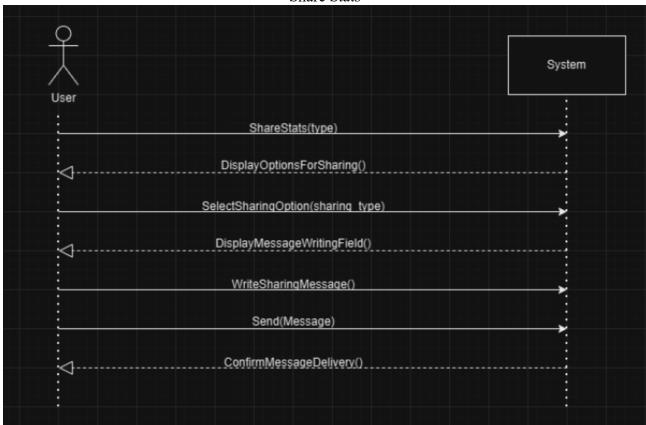
DisplayMemberDetails()

ReviewMemberDetails()

ConfirmChanges()

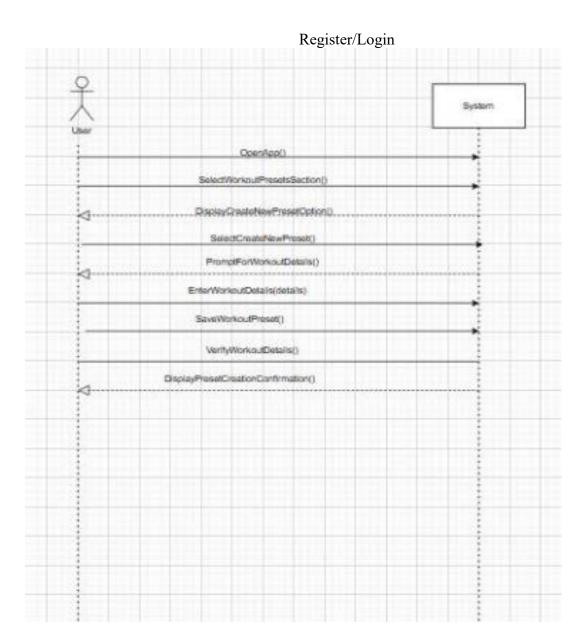
DisplayConfirmationMessage()

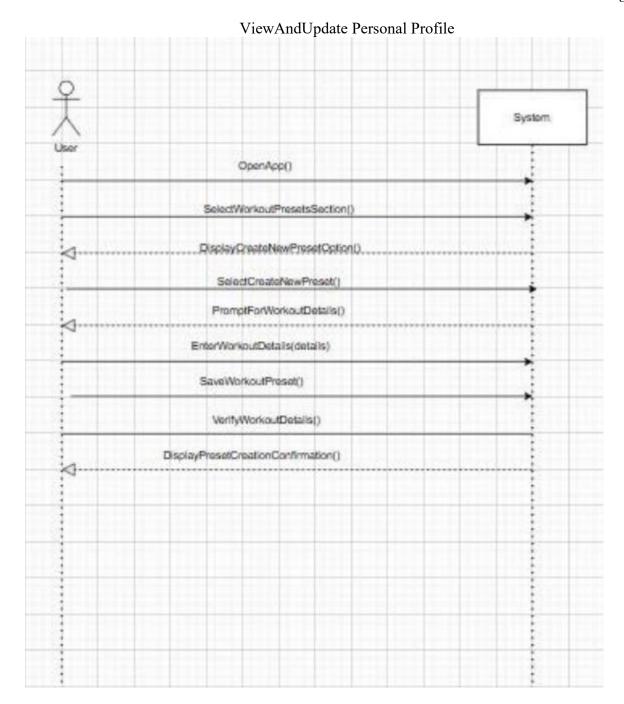
Share Stats



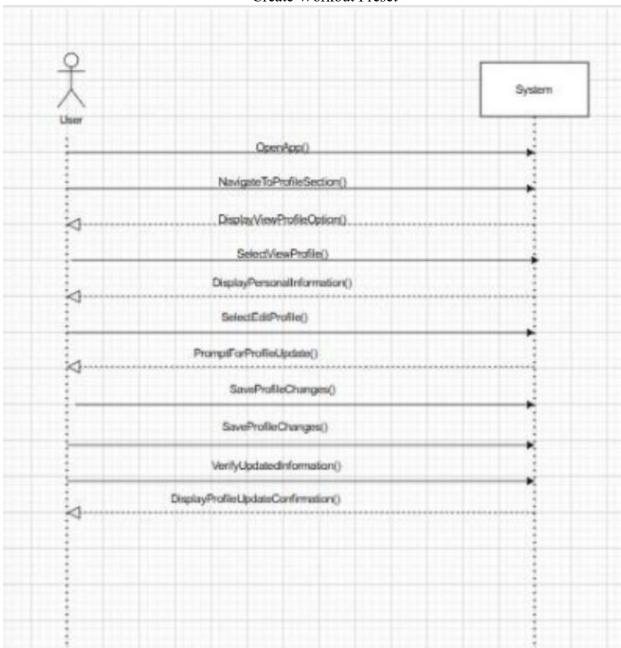
View Transactions



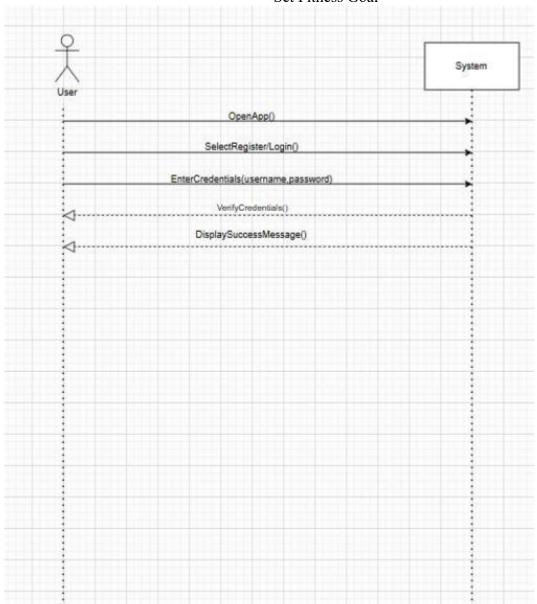




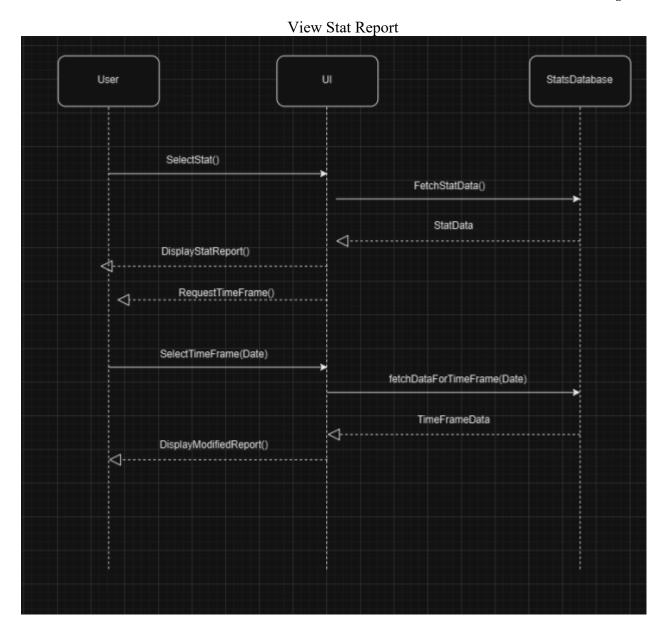
Create Workout Preset



Set Fitness Goal

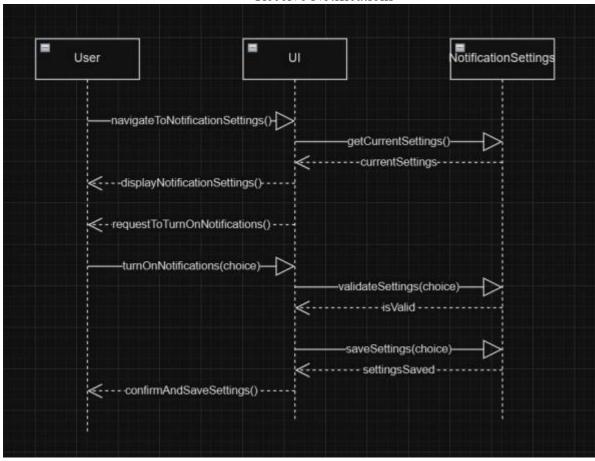


6. Sequence Diagram

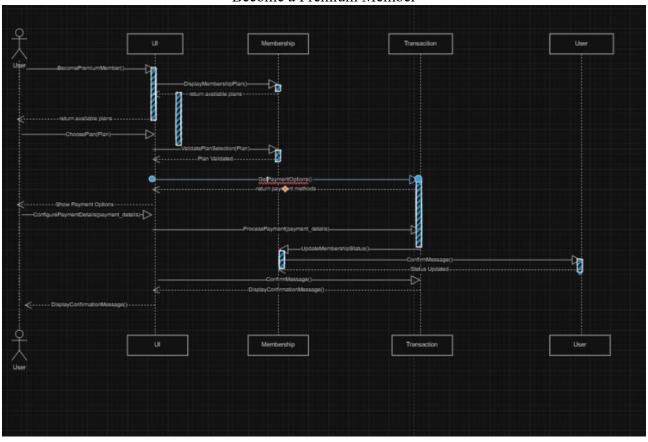


Pre Designed Workout System Workout User navigateToLogWorkout(Pre_DesignedWorkout) -loadWorkout()------workoutDetails---------- showWorkouts()------chooseWorkout()----getWorkoutDetails()-------displayWorkoutForReview()-----loop [For each exercise] reviewReps(No_of_Reps) updateExerciseReps(exerciseId, reps) ←----- exerciseUpdated------confirmAndLog()---validateWorkout()-----saveWorkout()------sendConfirmation() -----

Receive Notifications



Become a Premium Member



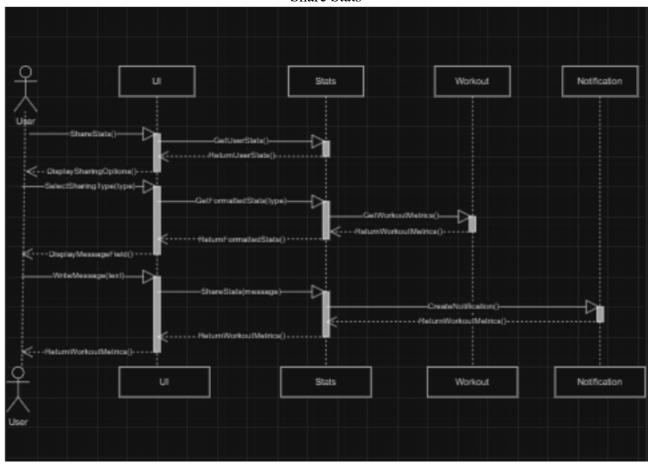
Manage User Accounts

User Profile Membership Notification

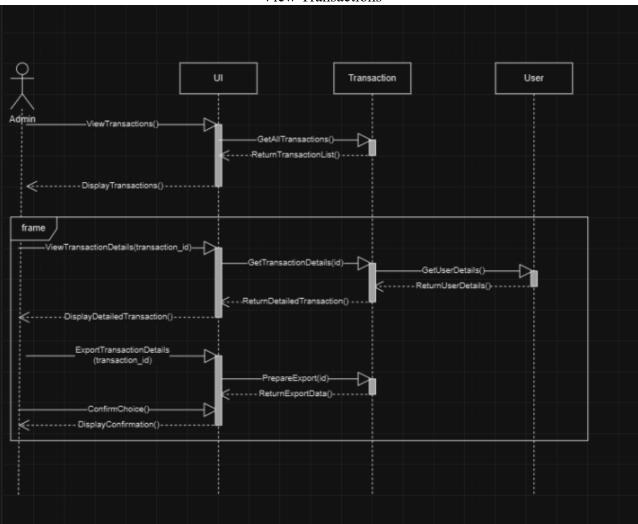
User Profile Membership Notification

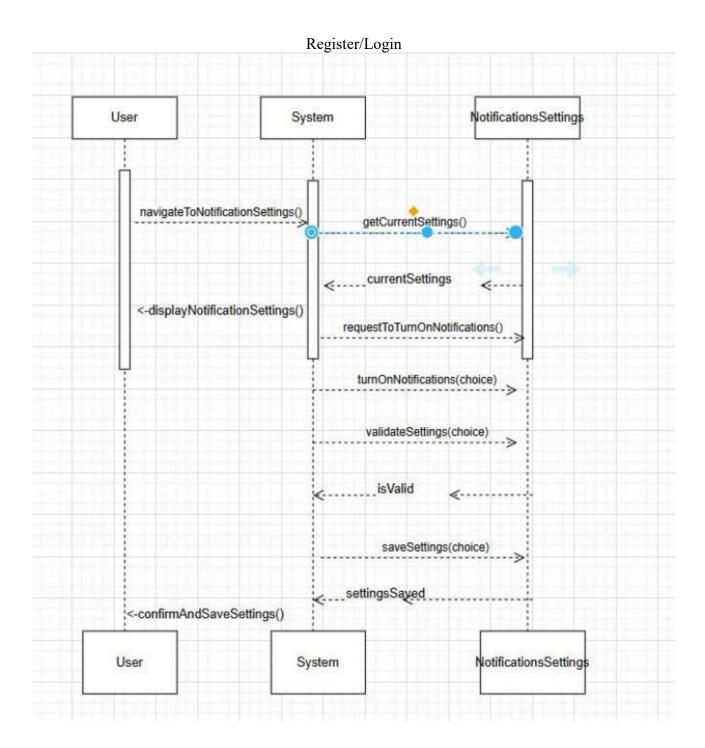
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Share Stats

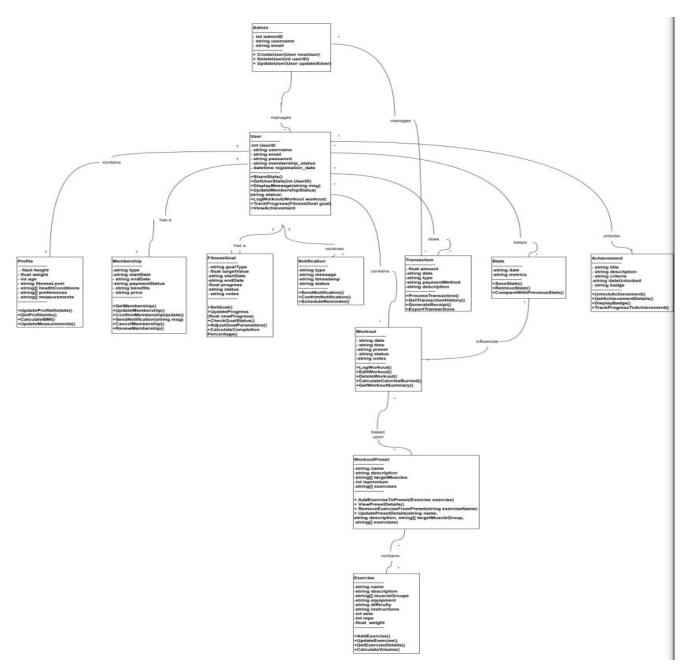


View Transactions



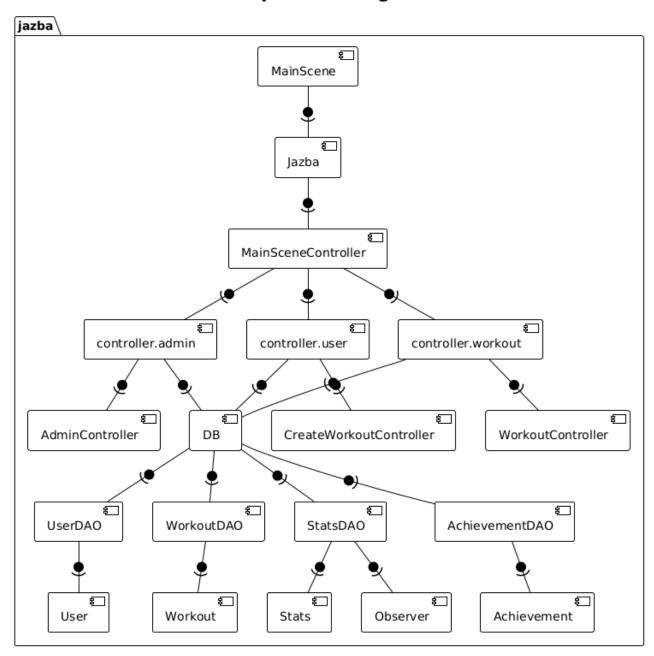


7. Class Diagram



8. Component Diagram

Component Diagram



9. Package Diagram



10. Deployment Diagram

