

Smart Task Monitoring System

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System Implementation

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Introduction:

The **Smart Task Monitoring System** is a task management solution designed to improve team efficiency by providing an intuitive task assignment and tracking system. The system allows **Admins, Team Members, and Assignees** to collaborate seamlessly, ensuring real-time task tracking and notifications.

Problem Statement & System Requirements

Problem Statement:

Before the development of this system, users faced challenges such as:

- Lack of a centralized platform for managing team tasks.
- Inefficient manual task assignment and tracking.
- No real-time notifications for assigned or completed tasks.
- No structured access control for different roles.

System Requirements:

Hardware Requirements:

- Processor: Intel Core i5 or higher
- RAM: 8GB or higher
- Storage: Minimum 500MB of available space
- Operating System: Windows 10, macOS, or Linux

Software Requirements:

- **Java 17+** (For back-end development)
- **JavaFX** (For the GUI)

- **MySQL Database** (For data storage)
- **IntelliJ IDE or Eclipse** (For development)

Functional Requirements Specifications

Functional Features:

1. User Registration & Authentication

- Users can create accounts and log in based on their role.

2. Task Management

- Team Members can create personal tasks.
- Assignees can assign tasks to Team Members.
- Users can mark tasks as complete.

3. Notification System

- Users receive notifications for assigned and completed tasks.
- Users can clear notifications.

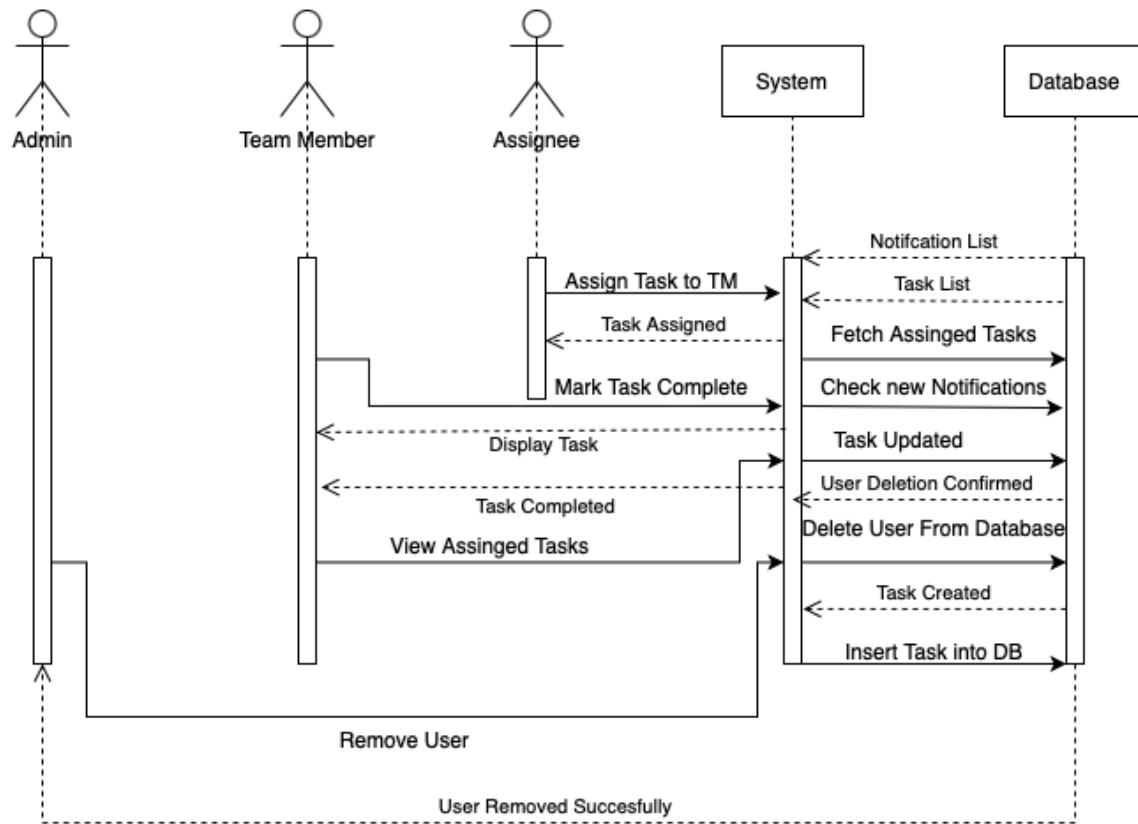
4. Admin Features

- Remove users from the system.
- Clear individual or all tasks.

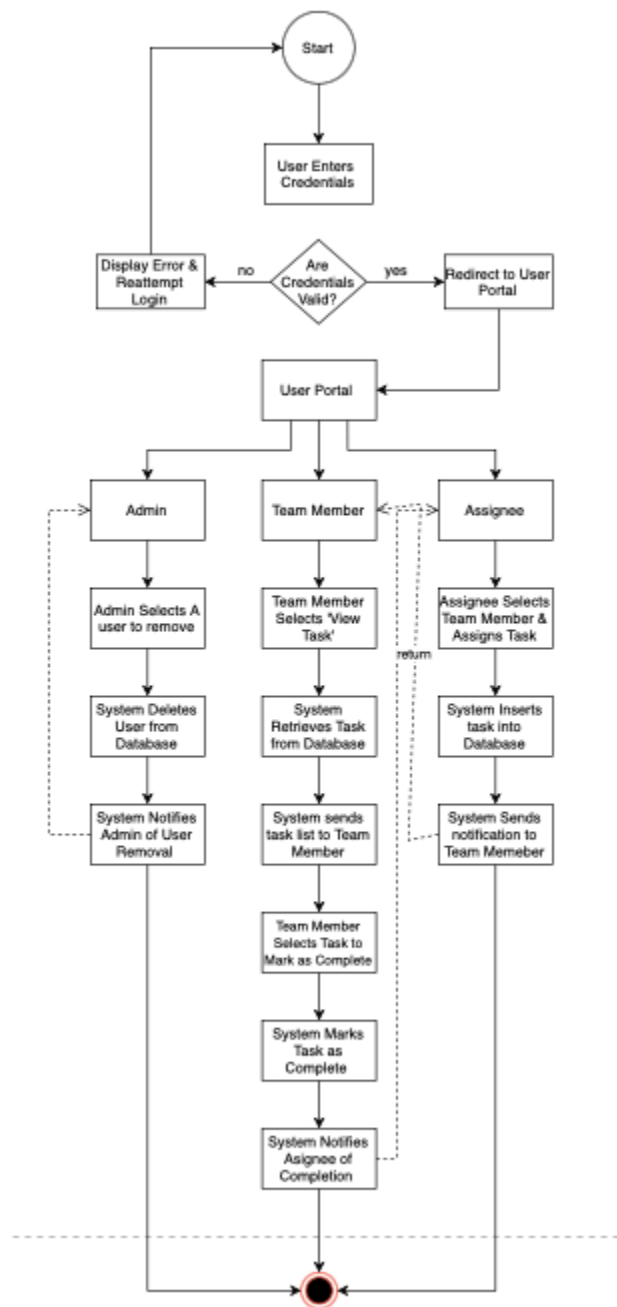
5. Return to Main Menu Option

- Users can return to the main menu without restarting the application.

System Sequence Diagram



Activity Diagram



User Interface Specification

UI Component	Description
Login Page	User enters credentials to access the system.
Task Dashboard	Displays all pending tasks with statuses
Task Creation Page	Allows Team Members to create personal Tasks
Task Assignment Page	Assignees can assign tasks to team members
Notification Tab	Users see updates on task assignments and completions.

Project Plan

Milestone	Status
System Design	Completed
User Registration/Login	Completed
Task Creation and Assignment	Completed
Notification System	Completed
Return to Main Menu	Completed
UI Enhancements	In Progress
Final Testing	In Progress

References:

- JavaFX
- MySQL
- Draw.io
- Java

Highlighted Changes

- Added 'Return to Main Menu' feature for better usability.
- Implemented a Notification Tab for Team Members and Assignees.
- Ensured tasks are displayed before marking them as complete.