AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH

SOFTWARE ENGINEERING (SPRING 2023-2024)

Group 2: Section: B

Project Proposal Title:

Tracking Mental Health Through Web and Mobile Check-Ins

Report No.: 4

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System Design Specification

Case Study:

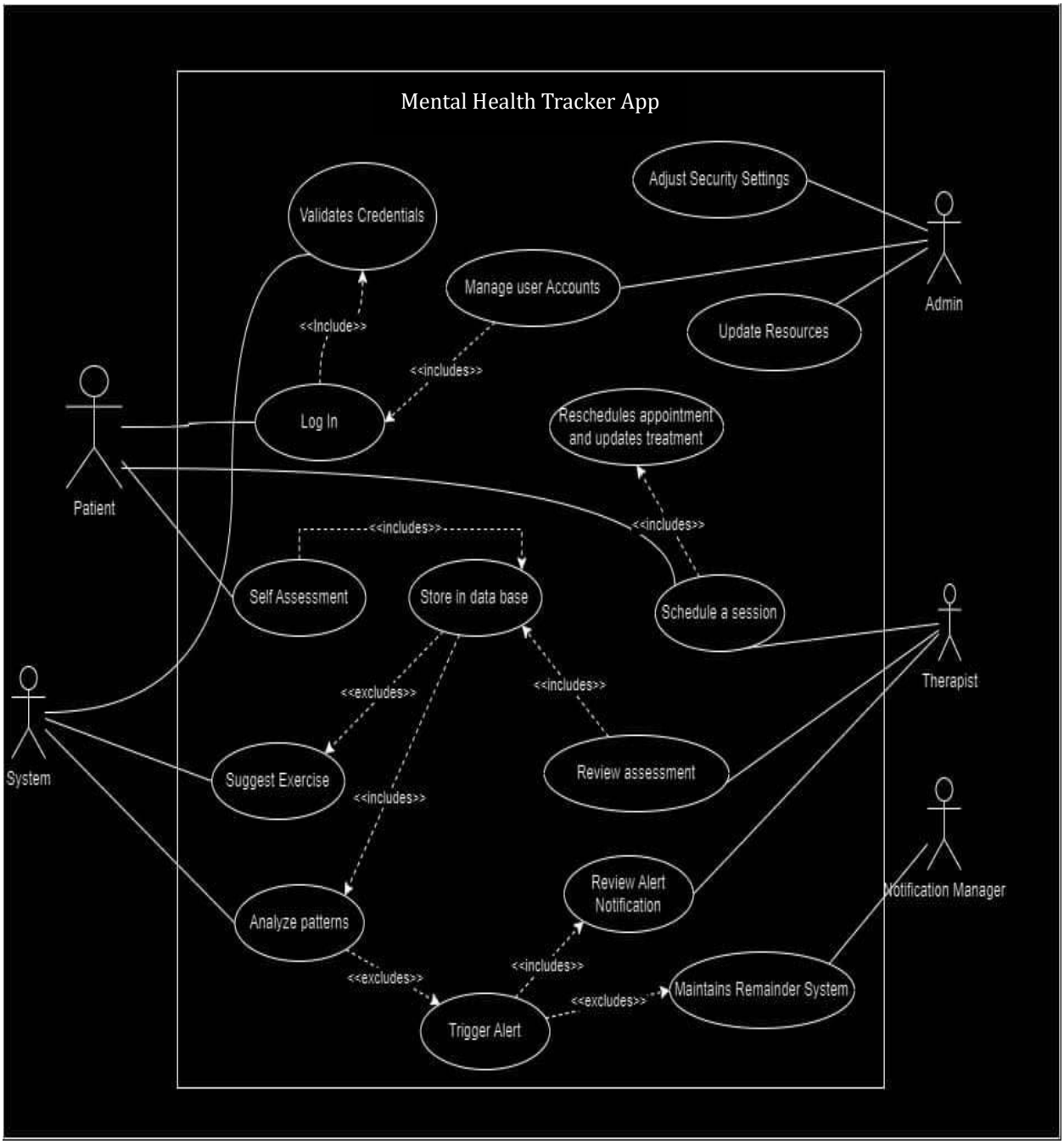
A patient logs into the Mental Health Tracker app with their unique credentials. The system validates the login details and grants access. Upon login, the patient is prompted to complete a self-assessment questionnaire to evaluate their mental health. The completed assessment is stored, and based on the responses, the app suggests a personalized mindfulness exercise for skill development.

The app tracks the patient's progress, and their mood is logged post-exercise. The app's algorithm analyzes the mood log and identifies a pattern that suggests the patient may benefit from professional assistance. It triggers an alert to their assigned counsellor .
The counsellor receives the notification and reviews the patient's recent assessments and mood logs within the app. They decide to schedule a remote counseling session using the app's built-in scheduling tool. After the counseling session, the counsellor updates the patient's treatment plan directly in the app and sets up a follow-up appointment.
Simultaneously, the admin logs into the app to update the mental health resource content, ensuring all articles and materials are up-to-date based on the latest user feedback. They use the admin panel to manage user accounts and adjust security settings to protect patient data.

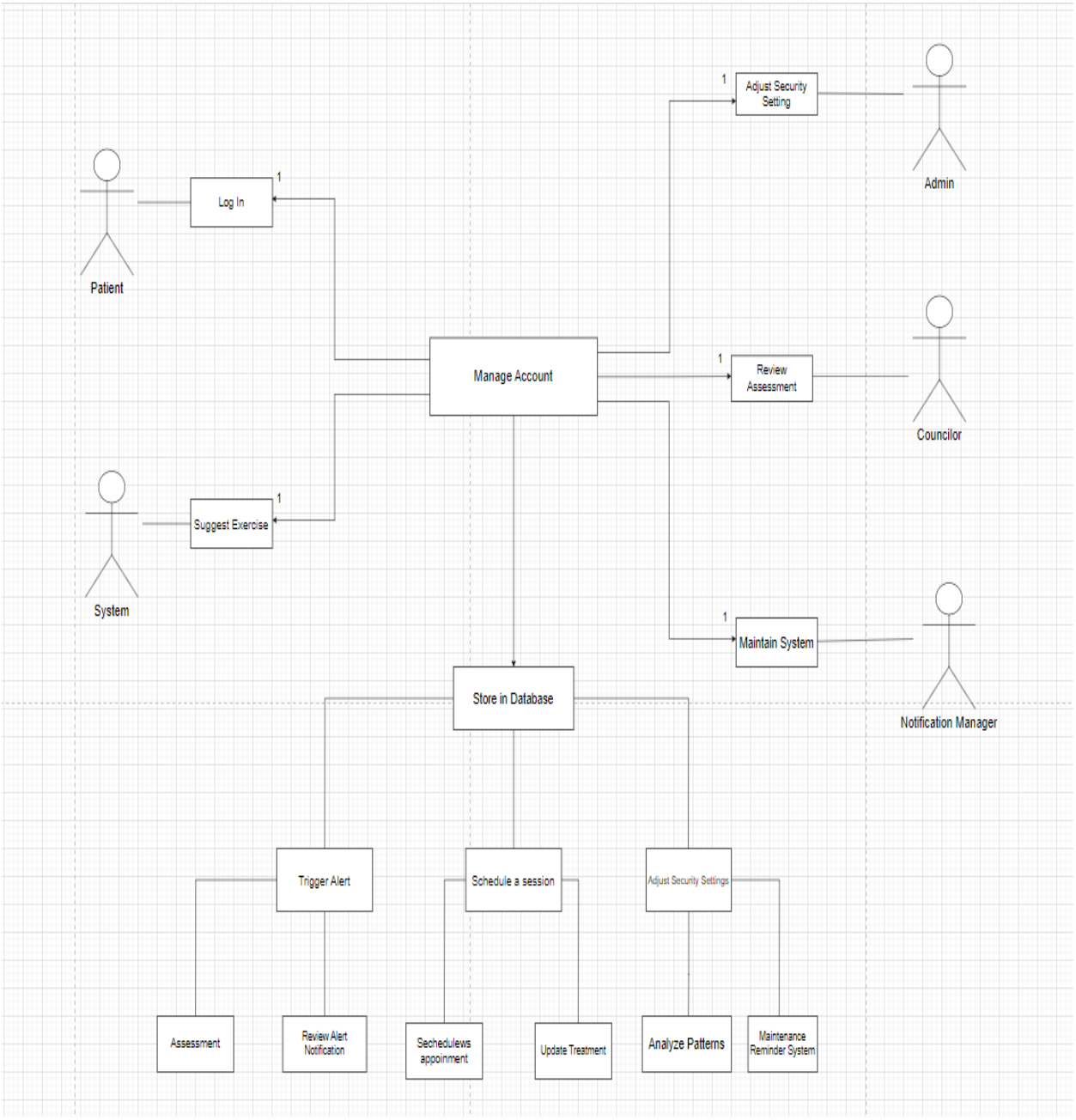
The notification manager oversees the app's reminder system, ensuring that weekly check-in reminders are correctly configured and sent to all users, including the patient, to promote consistent engagement with the app.

As the patient completes their weekly check-ins and engages with the suggested activities, the app automatically grants them achievement badges. These badges are part of the reward system designed to motivate users and are visible on the patient's profile, celebrating their commitment to their mental health journey.

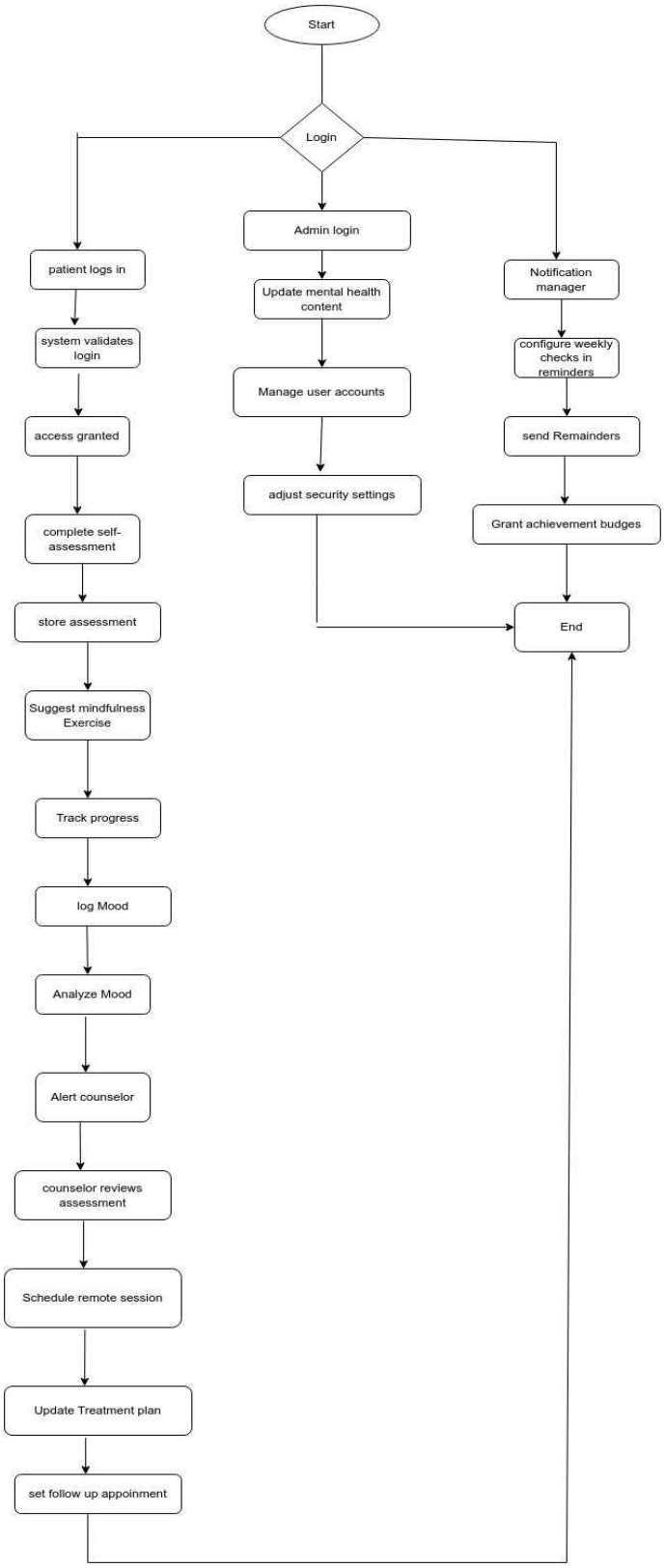
1.Use Case diagram:



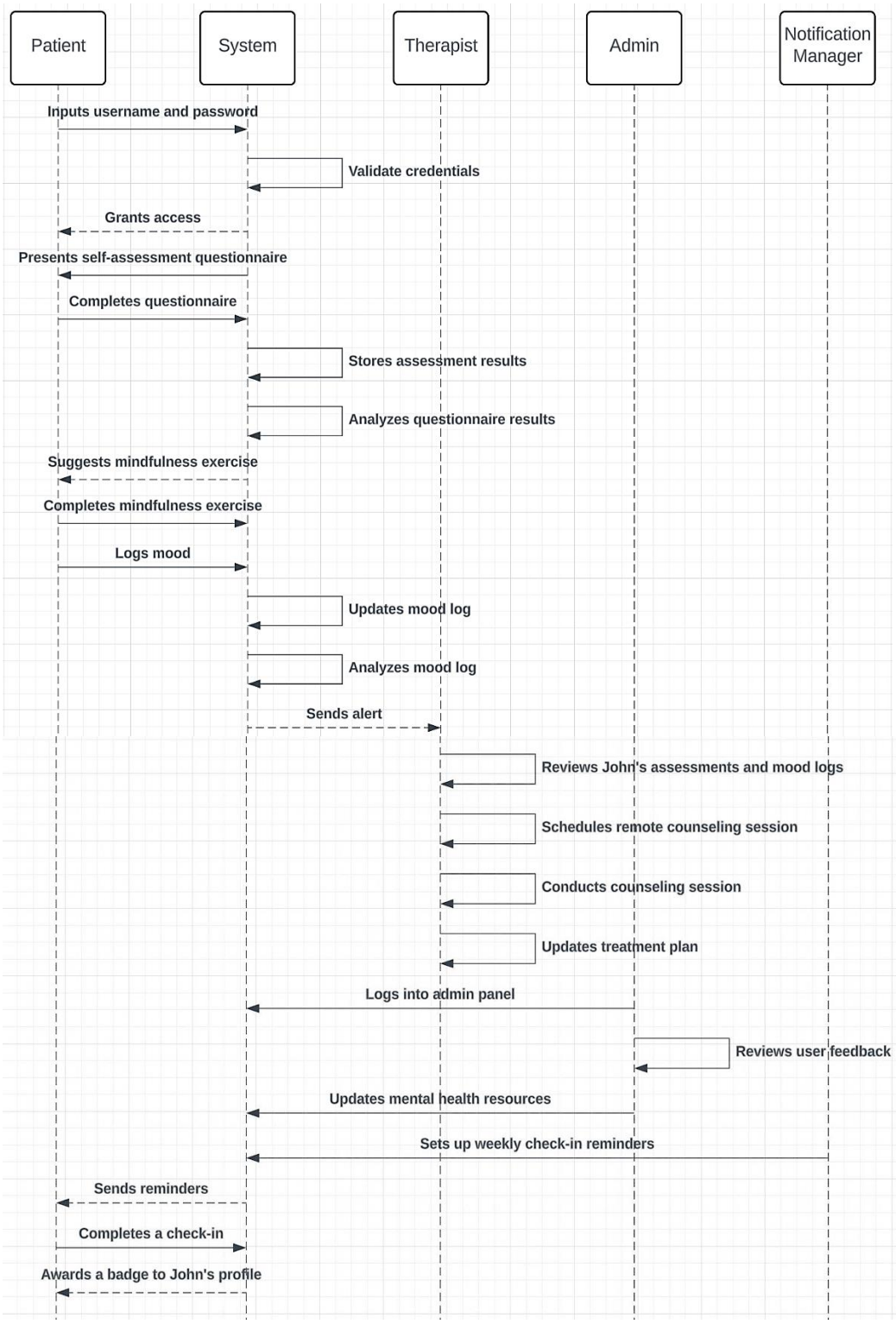
2. Class Diagram:



3. Activity Diagram:



4. Sequence Diagram:



Entity Relationship (ER) diagram: