

# Final Project – Software Engineering CS370

Queens College – Sprint 2025

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## All Requirements For Personal Habit Tracker

### Stakeholder Requirements

1. **As a user**, I want to be able to create, edit, and delete habits, and set daily or weekly goals for each habit so that I can customize my habit list, stay consistent, and feel accomplished when I meet my targets.
2. **As a user**, I want to view my progress through streak counters, charts, and motivational messages when I reach my goals so that I can stay motivated and visually track my improvement over time.
3. **As a user**, I want to receive gentle reminders or notifications at the right time so that I don't forget to complete my habits .

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### Software Requirements

1. When a user opens the application, the application shall display options to create, edit, or delete a habit.
2. When a user creates or edits a habit, the application shall allow the user to choose a daily or weekly goal for that habit.
3. When a user completes a habit, the application shall update the

streak counter and track the number of completions.

4. When a user views their dashboard, the application shall display visual charts to show progress trends and streak history.
5. When a user meets a goal, the application shall display a motivational message congratulating the user.
6. When a user sets reminders, the application shall send notifications at the configured time using local or push notification services.

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### **Architecture Requirements**

1. The frontend shall be implemented using a responsive web framework such as HTML/CSS/JavaScript or React to ensure accessibility across devices.
2. The backend shall manage habit data, progress tracking, and reminder schedules through a service layer Java Servlet.
3. The storage system shall persist habit data, streaks, and goals using local Storage for offline use or a cloud-based database (MySQL) for online use.
4. The chart visualization component shall use a JavaScript library (e.g., Chart.js) to dynamically render progress charts based on stored habit data.
5. The reminder system shall use browser-based notification APIs or background services (e.g., Service Workers or CRON jobs) to send timely habit reminders.