# NOVEMBER 19, 2024 SUBSTACK+ SYSTEM REQUIREMENTS DOCUMENT DRAFT

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# Introduction (SW)

The purpose of this document is to outline the functional requirements for the Substack+ app, designed to provide a user-friendly and customizable experience for both publishers and readers. It details the key features, including messaging tools, content creation and scheduling, notifications, user management, and security protocols. The purpose of this document is to serve as a comprehensive guide for the development and implementation of the app, ensuring all necessary features are addressed to deliver a seamless and engaging experience for all users.

# **DESCRIPTION MODEL(SW)**

### 1. USER INTERFACE

**Intuitive Design**: The Substack+ app must feature an intuitive, easy-to-navigate interface that enhances the user experience.

- 1. **Light/Dark Mode**: The app should provide a toggle for light and dark modes, allowing users to switch between them through the settings menu.
- 2. **Navigation Pane**: A collapsible left-side navigation panel provides quick access to critical app functions, such as the inbox, active chats, settings, search for new authors, and account details.
- 3. **Responsiveness**: The app must adapt to various screen sizes (smartphones, tablets, desktops) while maintaining usability and ease of access.

### 2. COLLABORATION AND MESSAGING

**Private Messaging**: Users must be able to send and receive messages, including text, audio, video, and files within group chats or individual conversations.

- 1. **Message Privacy**: All messages should be encrypted and accessible only to the intended recipients, ensuring confidentiality and security.
- 2. Message Types:
  - a. Text
  - b. Audio
  - c. Video
  - d. Files (documents, images, etc.)
- 3. **Group Chat Features**: Users can join existing chats or be invited to participate. Group members can freely share messages within the group, with the option to restrict or allow media sharing.
- 4. **Security**: Messages should be encrypted and protected from unauthorized access. Access to chat groups must be restricted by invitations or user joining requests.

### 3. CONTENT CREATION & SCHEDULING

**Multi-Format Content Creation**: The app must allow content creators to post text, audio, and video content in a variety of formats.

- 1. **Content Scheduling**: Publishers can schedule posts to be published on specific dates and times, with the flexibility to select which groups will receive the content.
- 2. **Content Distribution**: The app must support targeting specific groups and sending posts via email notifications to those groups.

### 4. Notifications System

**Integrated Notifications**: Notifications should be linked to both content creation and messaging features to ensure users are promptly informed of updates.

- 1. **Prioritization**: Users must be able to mark certain messages or authors as important, ensuring they receive timely alerts for critical updates.
- 2. **Mute Options**: Users should have the ability to mute notifications from specific authors or groups, offering control over the information flow.
- 3. **Filter Content**: Content should be filterable by publisher, content type, or specific topics to improve discovery and relevance.

### 5. User Account & Authentication

**Login and Security**: Users must be required to log in to access personalized content and interact with published posts. The authentication process should include secure password handling, multi-factor authentication, or single sign-on for enhanced security.

- 1. **Account Settings**: Users must have the ability to manage account details, preferences, and notification settings within the app.
- 2. **User Profiles**: Users should be able to update their profiles with personal details and preferences for content consumption.
- 3. **User Feedback System**: A feature for users to provide feedback, rate content, or suggest improvements should be available within the app.

### 6. CONTENT DISCOVERY

**Search Functionality**: A robust search feature must be available, allowing users to search for new authors, groups, or specific content types across the platform.

1. **Sorting and Filtering**: Users must be able to filter search results by author, date, content type, or other relevant criteria.

### 7. SECURITY & PRIVACY

- 1. **Data Protection**: All user data, including messages, content, and personal information, should be securely stored with encryption and comply with relevant data privacy regulations (e.g., GDPR).
- 2. **Access Control**: Only authorized users should be able to access certain content or participate in specific chats, ensuring privacy and preventing unauthorized access.

### 8. Performance & Scalability

- 1. **Efficient Content Delivery**: The app should handle large volumes of content and messages, with minimal delays in post scheduling, message delivery, and notifications.
- 2. **Scalability**: The app should be designed to scale seamlessly, supporting a growing number of users, chats, and content distribution needs.(OpenAI,2024)

# Class Diagram(SW)

ClassDiagram.pdf

# Use Case Diagram (SW)

UseCaseDiagram.pdf

# Use Case Scenarios (SW & OA)

UseCaseScenerio.pdf

# System Sequence Charts (SW)

SSC.pdf

When prompted with "You are a software engineer and need a descriptive model for a requirements template. Here is an overview of the actual attributes of this app for context: The Substack+ app is designed to provide a user-friendly and customizable experience, offering a range of features to enhance both content creation and user engagement. The app's interface is intuitive, allowing users to easily switch between light and dark modes through the settings. A key feature of the app is its collaboration tools, where users can send and receive text, audio, and video messages, as well as share files within group chats. These messages are private and can only be read by members of the chat or the specific recipient. Users must either join an existing chat or be invited to participate in these conversations, ensuring that all messages remain secure and accessible only to relevant parties.

For content creators, the app includes a content scheduling feature that supports various post formats, including text, audio, and video. Publishers can select the date and time for posts to be published, as well as the specific groups that will receive the content via email. This allows for efficient content management and timely distribution to targeted audiences. The notification system is closely integrated with content scheduling, ensuring that users are alerted when new content or messages are available. Users can prioritize notifications by marking certain authors or messages as important, or even mute notifications for specific authors. They can also filter content by publisher or content type, making it easier to find the most relevant posts.

In addition to these features, the app includes a navigation pane that expands from the left side of the screen. This navigation panel provides quick access to the inbox, search for new authors, active chats, settings, and account details. To access their account and interact with published content, users must log in, ensuring that their information and notifications are secure. Overall, the Substack+ app offers a comprehensive set of tools for both users and publishers, designed." the ChatGPT-generated text listed the necessary input, output, security, and additional features that the app uses based on the sample I had previously written about the features of Substack+. I ensured I removed the features that were not necessary and edited any text that needed improvement(OpenAI, 2024).

Reference

OpenAI.(2024). ChatGPT (GPT -4)[Large language model]. https://chatgpt.com/