

Requirements Gathering

Team Members

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1) Stakeholder Analysis

Key Stakeholders:

- **End Users (Chat Website Users):** Individuals using the platform for communication.
- **Administrators:** Manage users, monitor chats, and ensure security.
- **Developers:** Responsible for maintaining and enhancing the system.
- **Project Owner:** Oversees project goals and ensures requirements are met.
- **Security Team:** Ensures data protection and compliance with privacy policies.

Stakeholder Needs:

Stakeholder	Needs
End Users	Seamless communication, real-time messaging, user-friendly UI
Administrators	User management, message moderation, reporting tools
Developers	Well-structured codebase, documentation, debugging tools
Project Owner	Functional system meeting business goals, scalable solution
Security Team	Data encryption, authentication, and compliance standards

2) User Stories

- 1) **As a user**, I want to create an account so that I can log in securely.
- 2) **As a user**, I want to send and receive real-time messages so that I can chat with others.
- 3) **As a user**, I want to create and join group chats so that I can communicate with multiple People at once.
- 4) **As an admin**, I want to delete inappropriate messages so that I can maintain a safe environment.

3) Use Cases

1) Sending a Message:

Actors: User (Sender), User (Receiver)

System Steps:

1. User logs into the system.
2. User selects a contact or group.
3. User types a message and clicks send.
4. System processes and delivers the message in real time.
5. Receiver gets a notification and views the message.

2) Deleting a Message:

Actors: User (Message Owner)

System Steps:

1. User logs into the system.
2. User navigates to the chat containing their message.
3. User selects a message they have sent.
4. User clicks the delete option.
5. System prompts for confirmation.
6. User confirms deletion.
7. System removes the message from the chat history.

4) Functional Requirements

- 1) Users must be able to register and log in securely.
- 2) Users must be able to send and receive messages in real-time.
- 3) Users must be able to create and join group chats.
- 4) Users must be able to delete their own messages.
- 5) Admins must be able to manage users and remove inappropriate content.

5) Non-Functional Requirements

- 1) The system must handle at least 400 concurrent users.
- 2) Messages should be delivered within 2 seconds.
- 3) The system must use encryption for secure messaging.
- 4) The UI must be intuitive and responsive across devices.
- 5) System uptime should be 99% or higher.