

# System Analysis and Desings

For

Government Free Agriculture System

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# 1. System Features

## 1.1 System Feature 1 (Report User)

### 1.1.1 Description and Priority

This is a smart mobile chat app. It represents the high-level flow of sending and receiving messages between users.

### 1.1.2 Stimulus/Response Sequences

- A message is sent from one user to another.
- The receiving user receives the message.

### 1.1.3 functional requirements

- The chat application must be able to send and receive messages between users.
- The application should be able to display a list of users or contacts.
- The app should allow users to select a recipient for their message.
- The application should be able to notify the user when a new message is received.

## 1.2 System Feature 2 (Use Case)

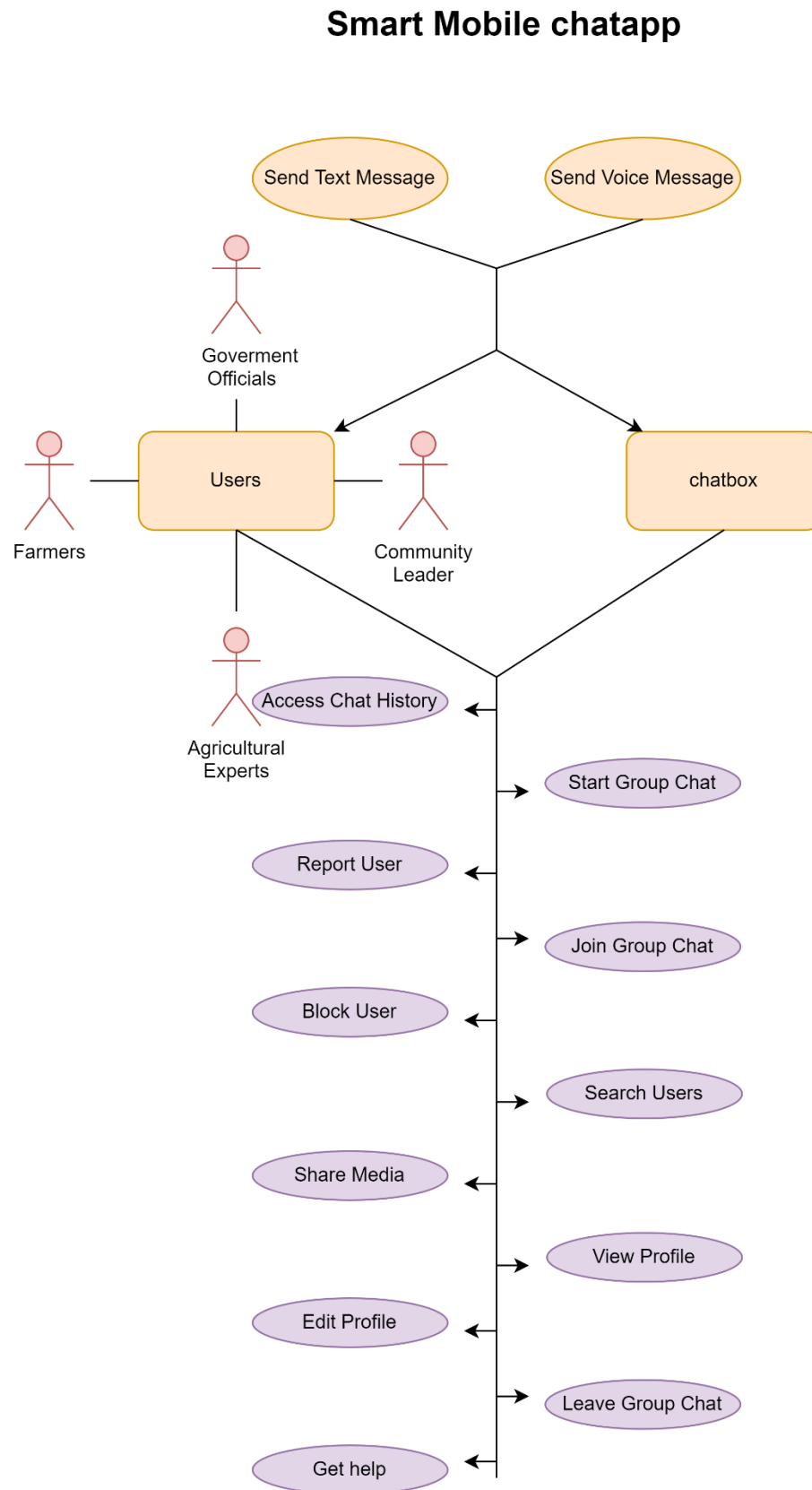


Figure 1-Use case Diagram for Smart Chat app.

## 2. External Interface requirements

### 2.1 User Interface

- Easily send messages to users.
- Easy access to messages for users.
- View a list of contacts.
- View their chat history.

### 2.2 Hardware Interface

- Smartphones
- Tablet computers

### 2.3 Software Interface

Interfacing the Application with other software applications or services, such as a messaging server or notification service

### 2.4 Communication Interface

- Sending messages over a network to the application.
- Allowing messages to be received over a network.

## 3. Performance Requirements

### 3.1 Security Requirements

- Preventing unauthorized access to user data.
- Inclusion of features such as encryption and authentication.

### 3.2 Software quality attributes

- The app is reliable.
- Scalability.
- Well done.
- No performance degradation.
- Its ability to handle large number of users and messages.

## 4. Other Requirements

Localization- The app interface and content should be adaptable to different languages to serve a wider audience.

Data Backup and Recovery- Implement a data backup and recovery plan to ensure user data and app functionality can be restored in case of system failures.

Analytics and Reporting- The system may collect to understand user behavior and inform future app improvements.

## Appendix A: Glossary

Define key terms used throughout the document to ensure clarity and avoid misunderstandings. For example

- GFAS- Government Free Agriculture System
- Chatbot- A virtual assistant that can answer questions and provide information within the app.

## Appendix B: Analysis Models

Include relevant diagrams or models used to analyze the system, such as Use case diagrams depicting user interactions with the app.

### ER Diagram

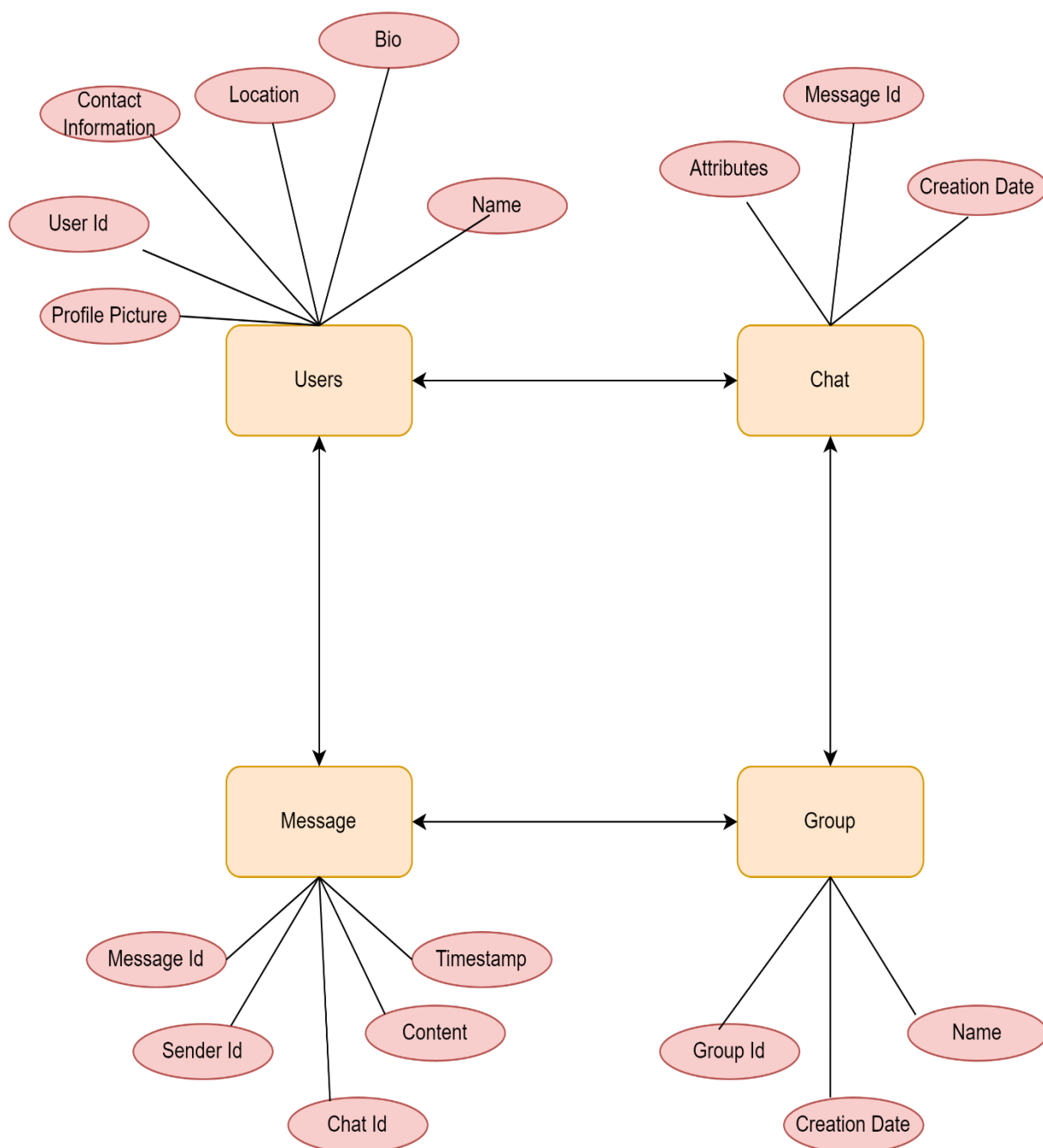


Figure 2-ER Diagram

## Appendix C: Issues List

Issue ID	Description	Priority	Status
<b>GFSC-001</b>	User registration fails for some users.	High	New
<b>GFSC-002</b>	Group chat functionality not working properly.	Medium	InProgress
<b>GFSC-003</b>	Text formatting issues in chat messages.	Low	To Do
<b>GFSC-004</b>	Images not loading correctly within chats.	Medium	To Do
<b>GFSC-005</b>	Missing accessibility features for visually impaired users.	High	To Do