

Project Specification for Group #192

Team Name:

iKunnect

Domain:

Instant Messaging and Communication with Integrated Translation

Software Specification:

The messaging app enables users to send text messages, images, videos, and audio recordings, and make voice and video calls in real-time. It also features integrated translation, breaking down language barriers. Users can create individual or group conversations, customize profiles, and receive notifications for new messages and translation suggestions.

User Stories:

Tylor wants to translate a text message he received from his Korean friend:

Tylor opens the app, selects a contact, and selects a message. From the context menu, he selects translate, and then the message is translated. **[team story]**

Tylor wants to send a text message:

Tylor opens the app, selects a contact, and sends a text message. He receives a notification when the message is delivered and read by the recipient. **[Yuanyuan story]**

Tylor wants to share an image:

Tylor selects a conversation, clicks on the attachment icon, selects an image from his gallery, and sends it. The image is displayed in the conversation for both sender and recipient. **[Hannah's story]**

Tylor wants to record and send an audio message:

Tylor presses the microphone icon, records an audio message, and sends it to a contact. The recipient can listen to the audio message with a single tap. **[Jiayou's story]**

Tylor wants to share a video:

Tylor starts a new conversation, clicks on the attachment icon, records a video, and sends it. The recipient can play the video directly within the app. **[Taiheng's story]**

Tylor wants to create a group chat:

Tylor creates a new group, adds contacts to the group, and sends a welcome message. Group members can chat, share media, make voice calls, and view the list of group participants. **[Fangshi's story]**

Proposed Entities for the Domain:

User:

- String username
- String password (hashed and encrypted)
- String profilePictureURL

Message:

- String content
- DateTime timestamp
- Enum messageType (text, image, audio, video, file)
- bool isRead
- String detectedLanguage (for translation)
- String translatedText (for translation)

Conversation:

- List of User participants
- List of Message messages

– bool isGroupChat

Scheduled Meeting Times + Mode of Communication:

During tutorial and flexible meeting time after tutorial each week.

In-person; Zoom if needed