Fun Club

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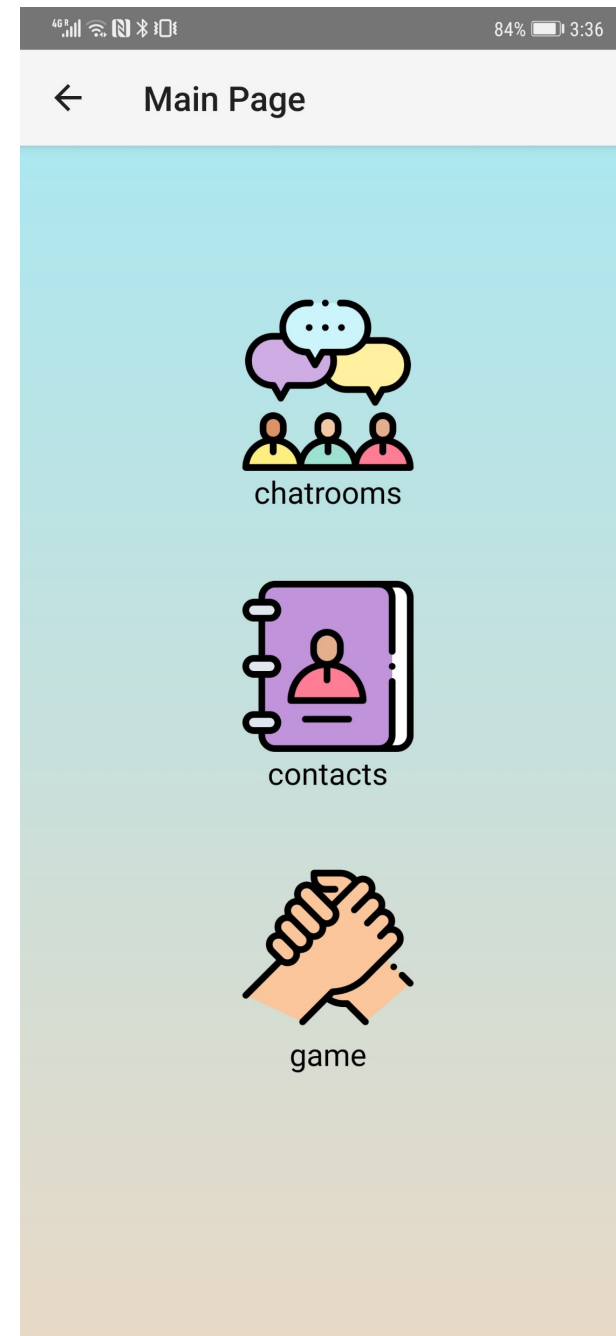
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Introduction

- Software name: Fun Club
- Programming language: Android & Python
- Function: Provide social chat and entertainment
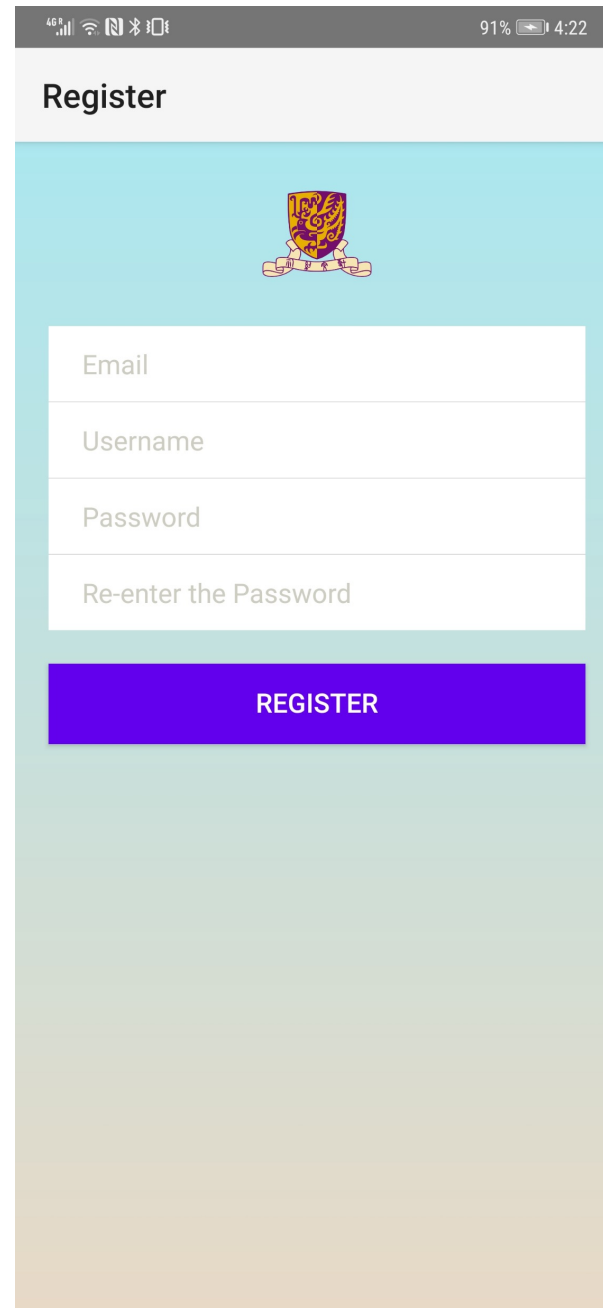
Features

- Register
- Log In
- Chatrooms
- Contacts
- Send new friend request
- Accept new friend request
- Private chat
- Game

1. Register

- Email
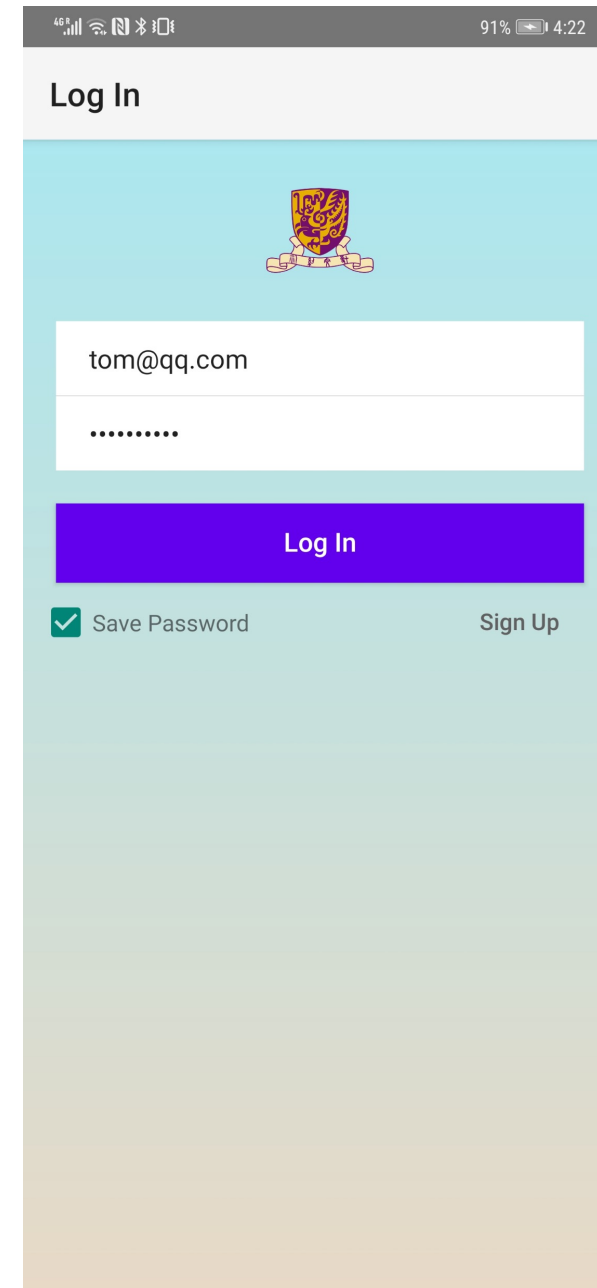- Username
- Password
- Re-enter password
- Format check

2. Log In

- Email
- Password
- Format check
- Save password

3.Chatrooms

- Multi-person chat
- Real-time message
- Refresh
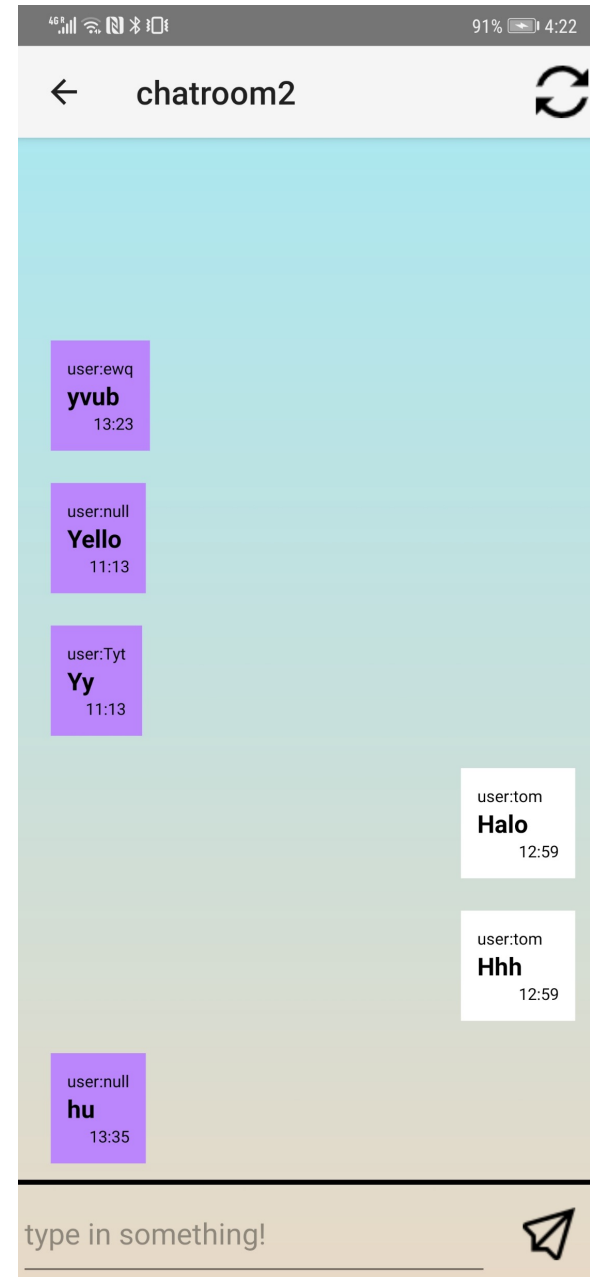
4. Contacts

- Friend list
- Add new

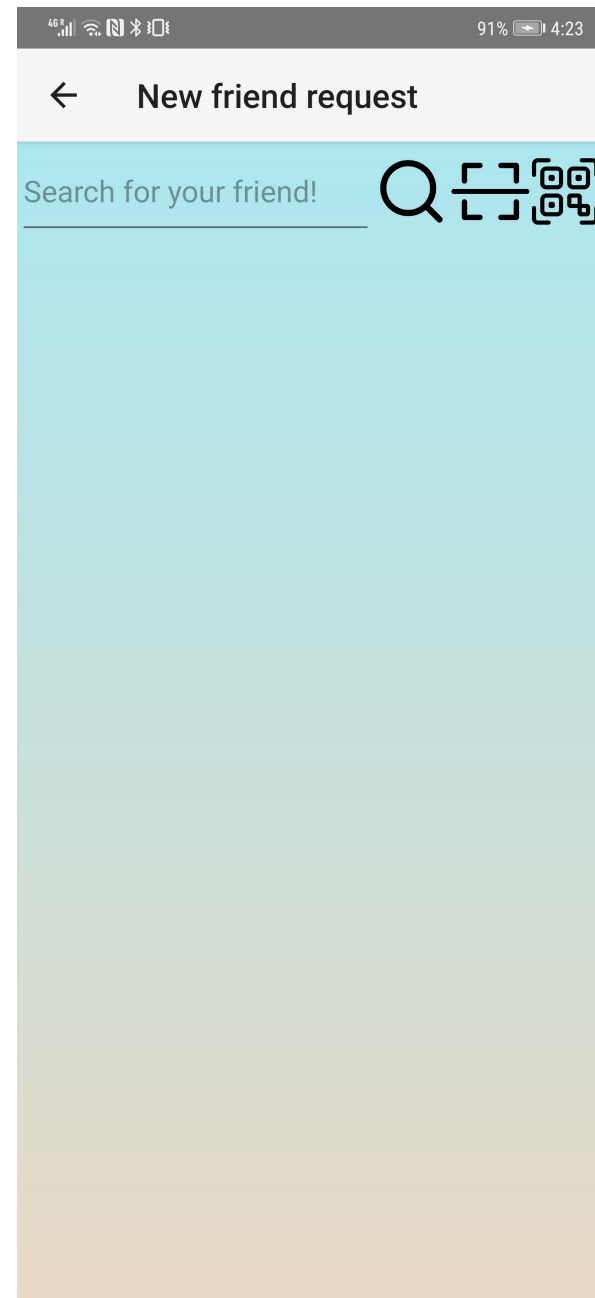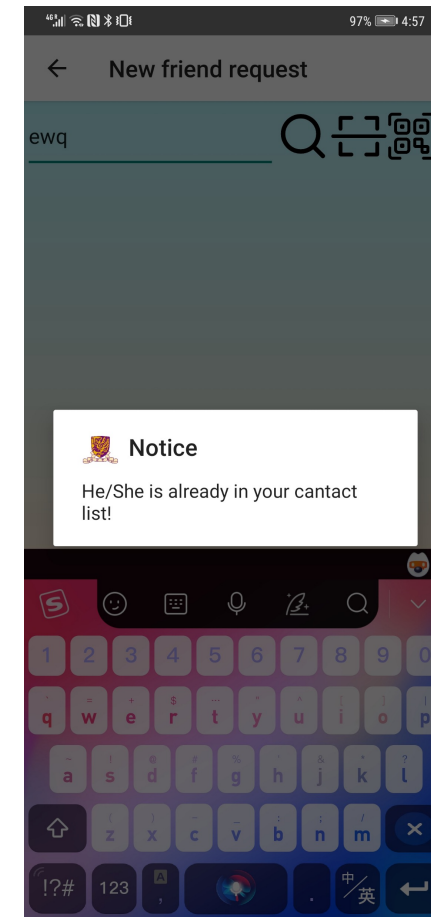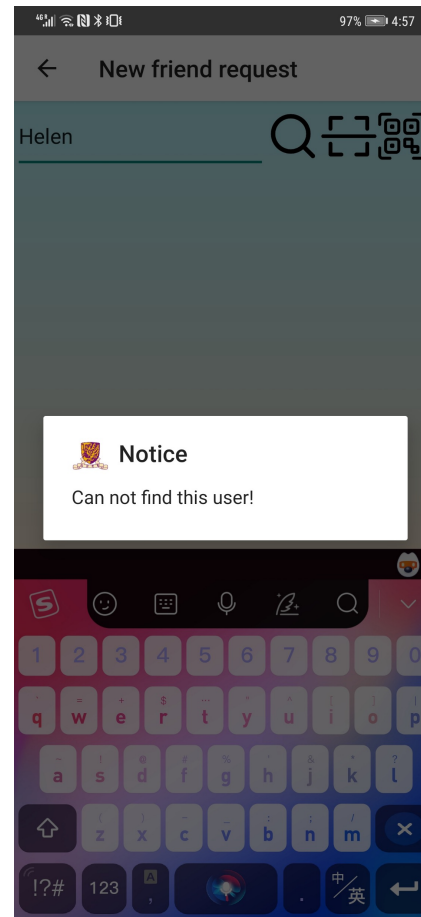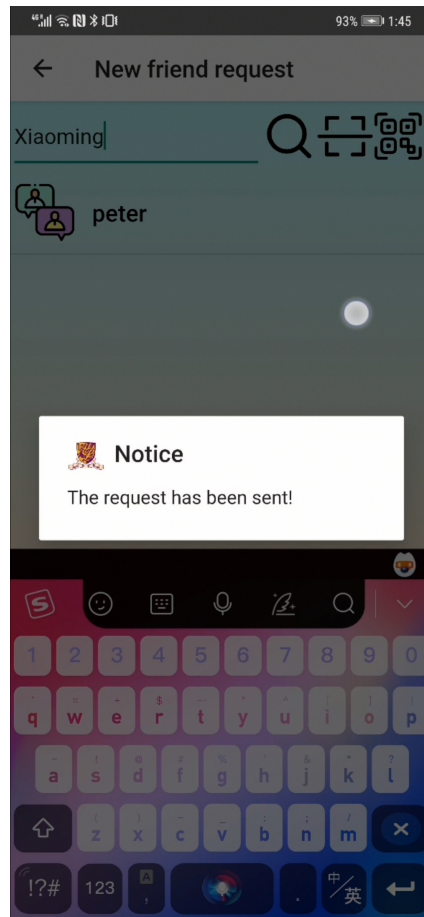# 5. Send New Friend Request

- Search by username
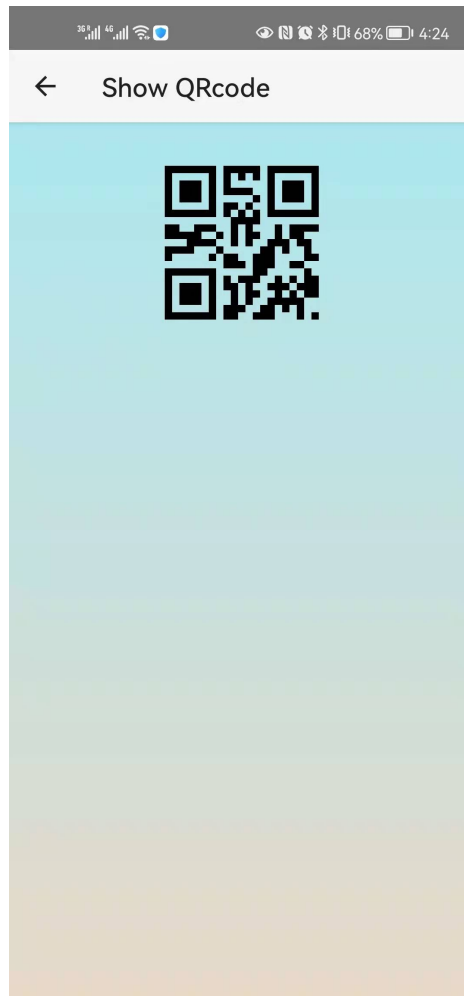- My QR code
- Search by QR code

Search by username

My QR Code

Search by QR Code

7.Accept New Friend Request

- Request list
- Reject
- Accept
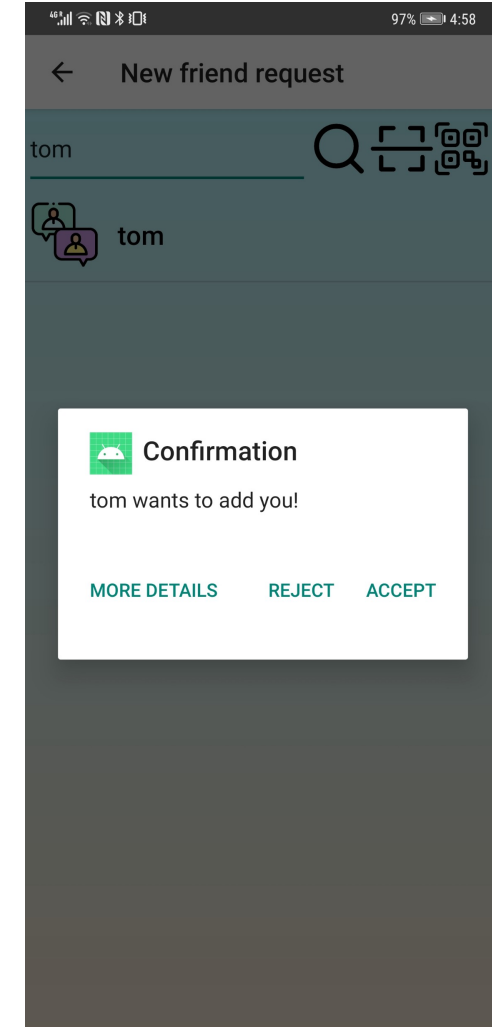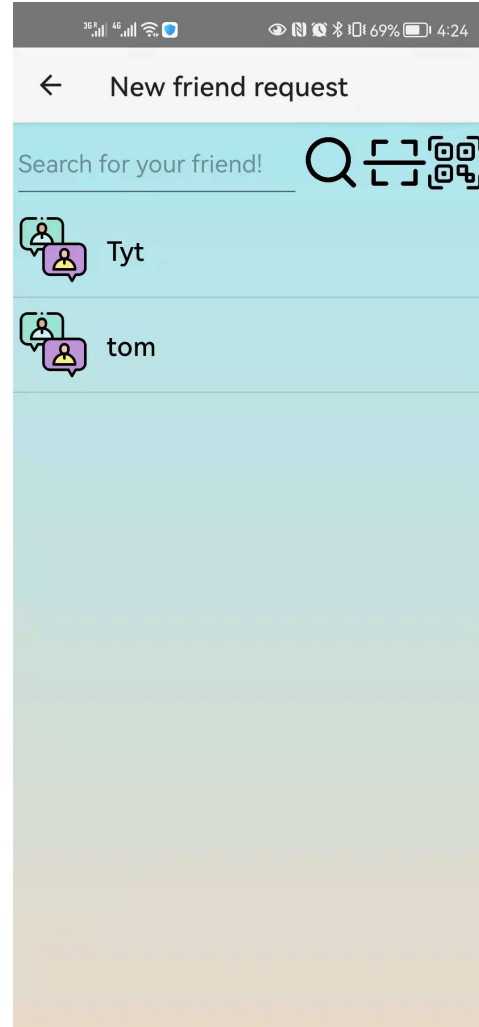
8. Private Chat

- Real-time message
- Emoji
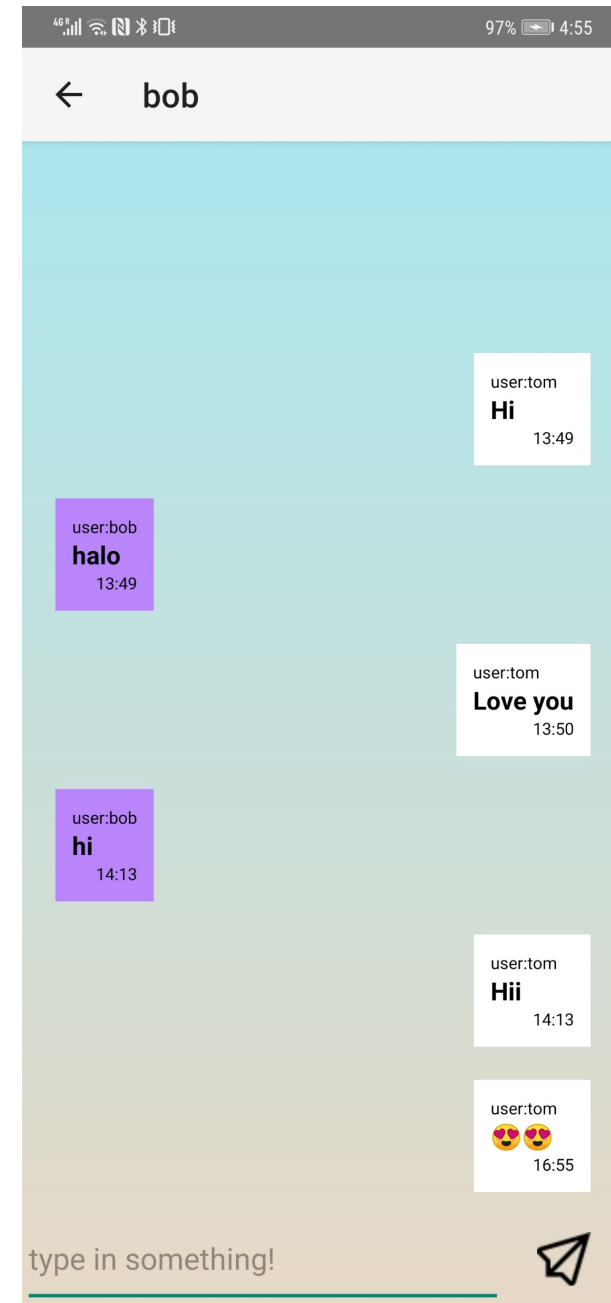
9. Game

- Tic-Tac-Toe
- Ready/Not ready
- Win/Lose/Draw
- Opponent left
- Quit/Play again

System Architecture

Future Work

- Add some functions.

    -Sending pictures, sending voices, voice calls, and video calls, etc.

- More complicated games.

    -Guessing, Gobang, Sokoban, etc.

- Homepage

    -Avatar, signature, circle of friends, likes, comments, etc.

Difficulties

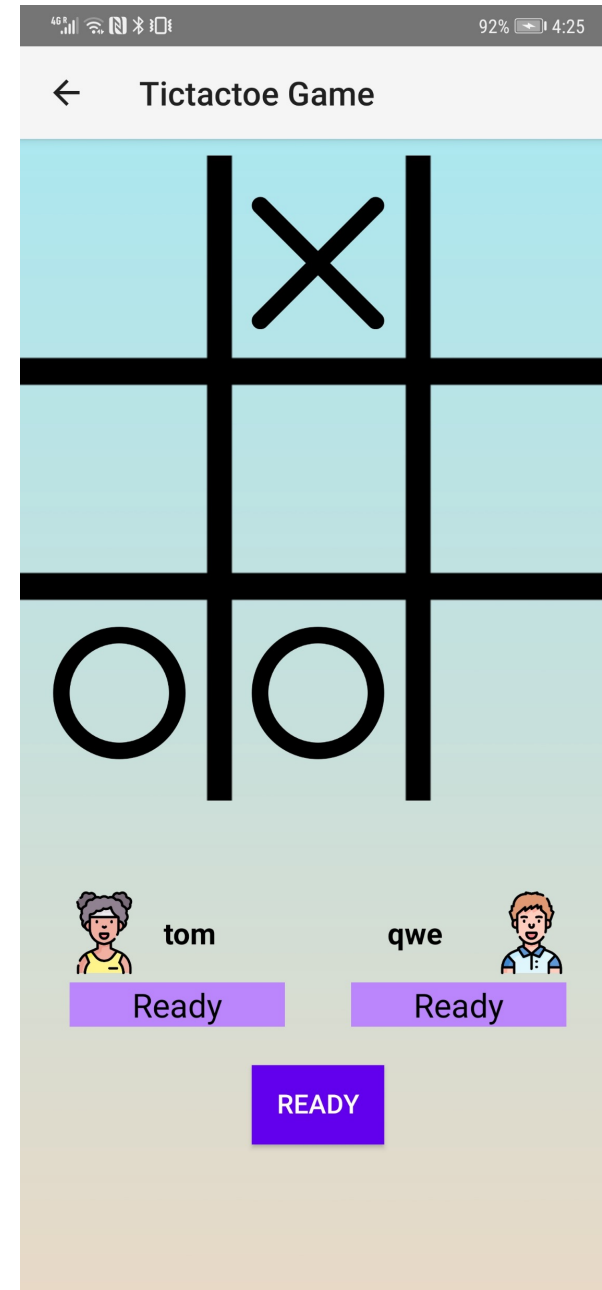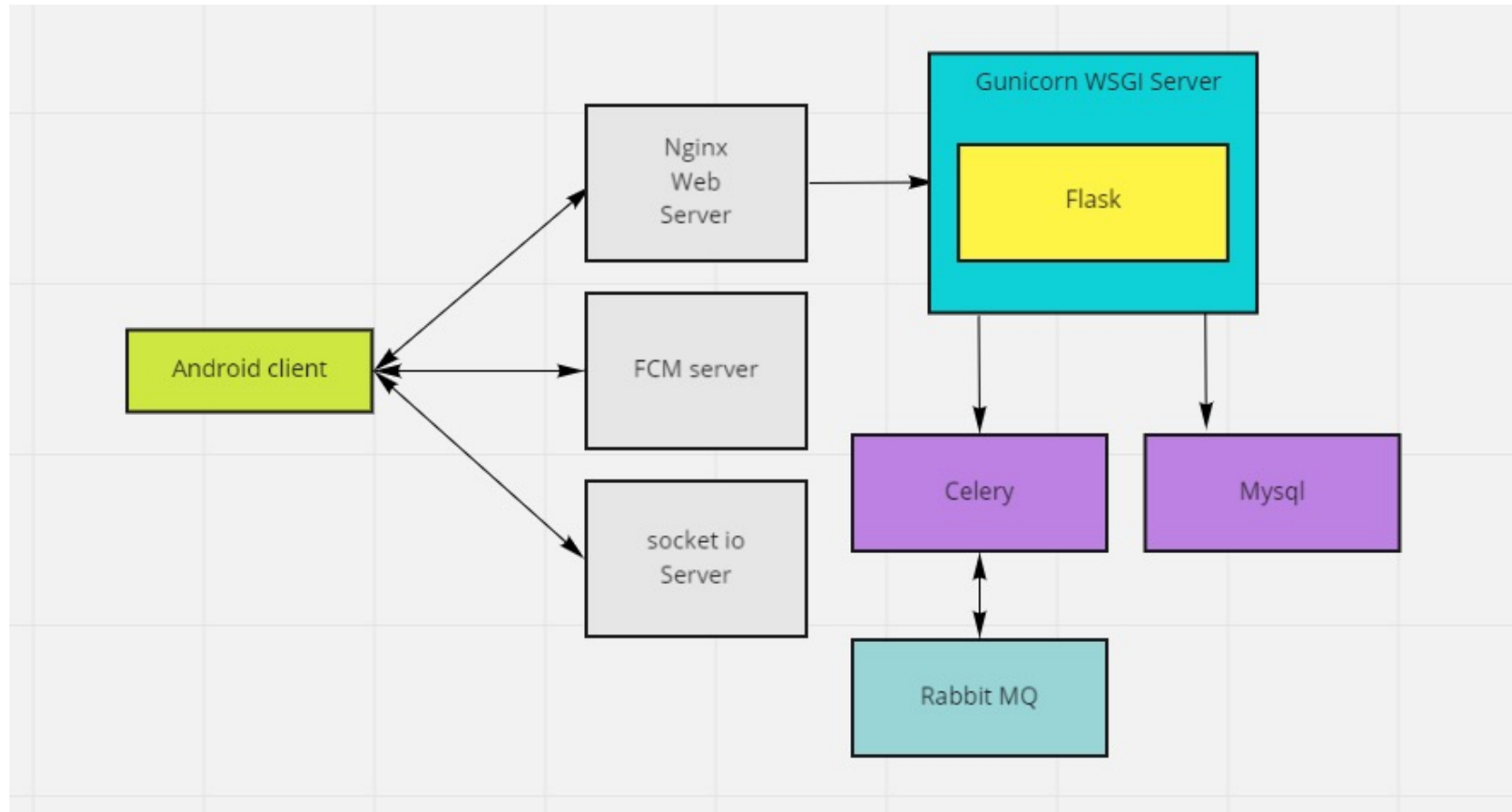The most difficult part is the game design. We need to control the game process, broadcast the user's click events to the players who participate in the game, update the UI of these players asynchronously, judge the winning conditions as well as react to special situations such as one player quit the game during game time.

Solutions

We use flask socket-io to help us broadcast messages and update the UI in real time. We use join room and leave room function to set up the game group. We also set up some flag values help us specify the execution order of the two players and create an array to keep track of the chessboard.

Reference

- **Andriod:**
  -okhttp

  -Google.zxing

  -Code-scanner

  -Google play service

- **Python:**
  -Flask

  -Flask-socket io

  -Celery

  -Firebase-messaging

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Thanks for watching!