Chinese Mahjong Online Game – Instructions

Prerequisites

- **Python 3:**
  Ensure you have Python 3 installed. You can download it from python.org.

- **pip:**
  Python's package installer should be installed automatically with Python 3.

Installation

1. **Extract the zip file**

2. Open the command prompt in the project folder or if you have Visual Studio Code open the project folder in VS Code

3. **Install the Requirements:**

Run the following command in terminal to install all the required python packages

pip install -r requirements.txt

Running the Application

1. **Set Up Ngrok Token (Optional for Public Access):**

   o Sign up at ngrok.com and get your access token from your dashboard.

   o In your app.py (or wherever you use pyngrok), add the your token at line 16:

   NGROK_ACCESS_TOKEN = "YOUR_ACCESS_TOKEN"

2. **Start the Application:**

Run your Flask-SocketIO app. For example:

python app.py

- View your IP with the command "ipconfig" in the terminal. It will list the use the IPv4 address to share the app with other people in the network.
- IPv4 address looks like 192.168.1.xx
- Open the url in browser: http://192.168.1.XX:5000

3. **(Optional) Running with Ngrok for HTTPS/Public Access:**

If you integrated pyngrok, when you run the application, it will automatically create a tunnel and print a public HTTPS URL. Share or open this URL to access the app over the internet.

How to Play

1. **Create a Room:**

   o Open the home page (index).

o Enter your username in the "Create Room" form.

o Click the **Create Room** button.

o The app will create a new room with a unique Room ID, and you'll be added as the first player.

2. **Join a Room:**

o On the home page, use the "Join Room" form.

o Enter the Room ID and your username.

o Click the **Join Room** button.

o You will be redirected to the game screen.

3. **Game Screen Overview:**

o **Header:** Displays the game title and your Room ID with a button to copy it.

o **Player Areas:** The board is divided into four areas for North, East, South, and West. Each area shows the player's name and the number of tiles they have. For your area, the actual tile images are visible; for opponents, only empty tile placeholders are displayed.

o **Discard Pile:** Displayed in the center of the board with a scrollable area if many tiles are discarded.

o **Draw Tile & Claim Meld:** When it's your turn, you'll see either the "Draw Tile" button or (if eligible) buttons for claiming melds (Chi, Pong, Kong). If a meld is claimed, the tiles move into your meld area.

o **Chat Area:** Allows you to communicate with other players during the game.

o **Turn Information:** The current turn is displayed at the top.

4. **Gameplay Flow:**

o The game begins when the room creator starts the game.

o Players take turns drawing a tile and discarding one.

o If a discarded tile completes a valid meld (Chi, Pong, or Kong) for a player, they are notified and given an option to claim the meld.

o The system checks for a winning hand after each move. Once a winning hand is detected, the game ends, scores are settled (with East's winnings/losses doubled), and a score table is displayed.

Troubleshooting

- **Ngrok Issues:**
  If you receive an error regarding Ngrok sessions, ensure no other tunnels are running. You may need to close existing tunnels or use a paid plan if you require multiple simultaneous tunnels.