Group 7

Virtual Chat 3D
UI Prototype

Version 2.0

Revision History

Date	Version	Description	Author
24/11/2024	1.0	Describe the UI prototype of each feature included in the app	Châu Vĩnh Đạt, Ngô Tấn Tài
1/12/2024	1.1	UI update: added header and footer, fixed home page	Châu Vĩnh Đạt
26/12/2024	2.0	UI update: add details for each screen to show user stories. Added: - Emotion in chat room - Room customize - Forgot password Rework all screens for consistency in formats and color.	Châu Vĩnh Đạt, Ngô Tấn Tài, Trần Đăng Tuấn

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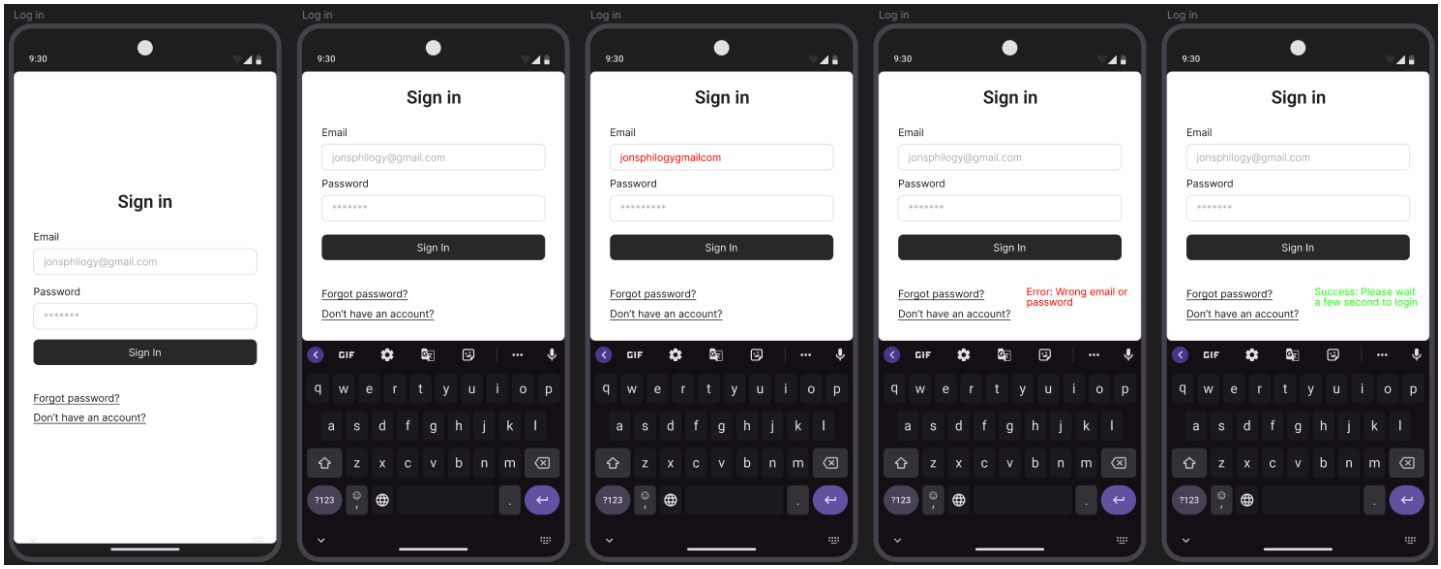
UI Prototype

1. Introduction

Throughout this document, we aim to present a detailed prototype for the User Interface (UI) of our ambitious project: **VIRTUAL CHAT 3D**. This prototype will serve as a foundation for shaping the visual and functional elements of the application, ensuring a seamless and engaging user experience. Additionally, this document will act as a central reference point for the entire team throughout the design and development process, fostering collaboration and alignment on our shared vision. By continuously consulting this document, we will maintain a clear focus on delivering an innovative and immersive virtual chat environment that exceeds user expectations.

2. UI Prototype

2.1. Login screen

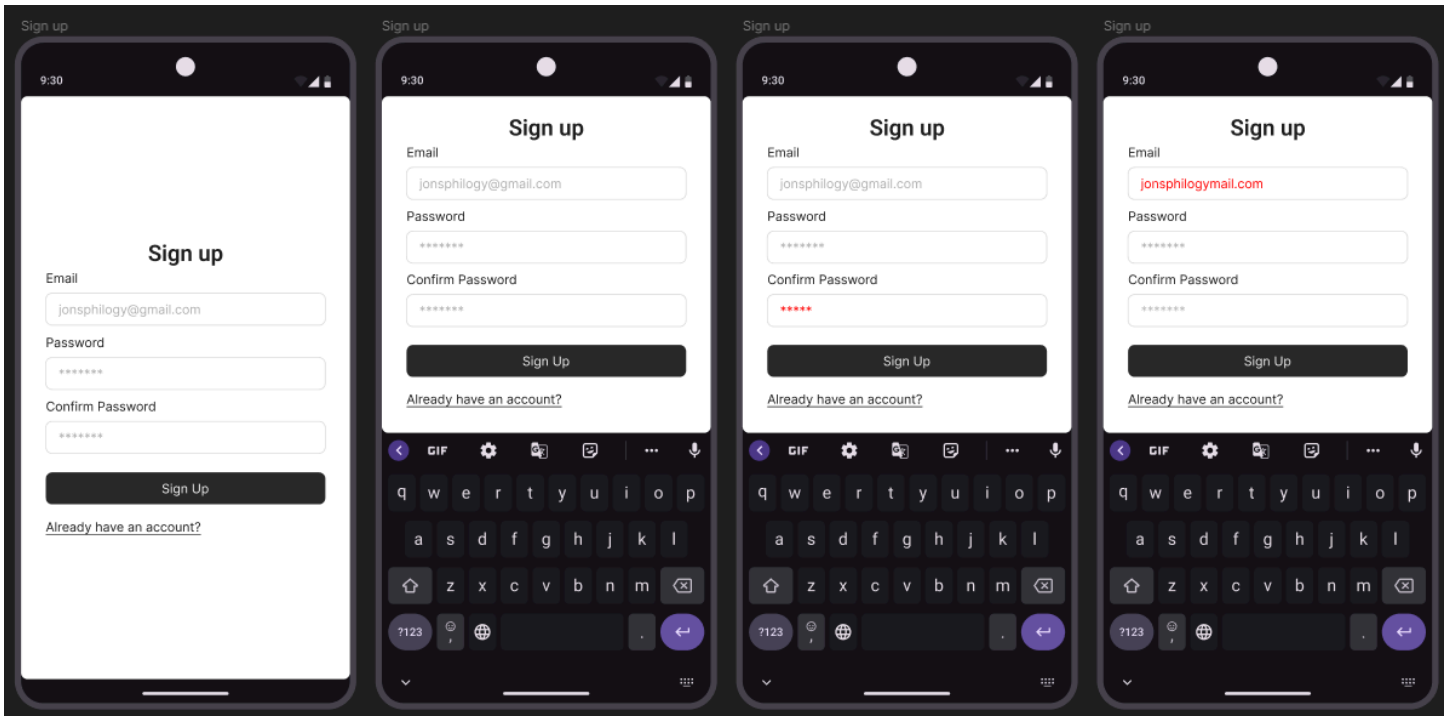


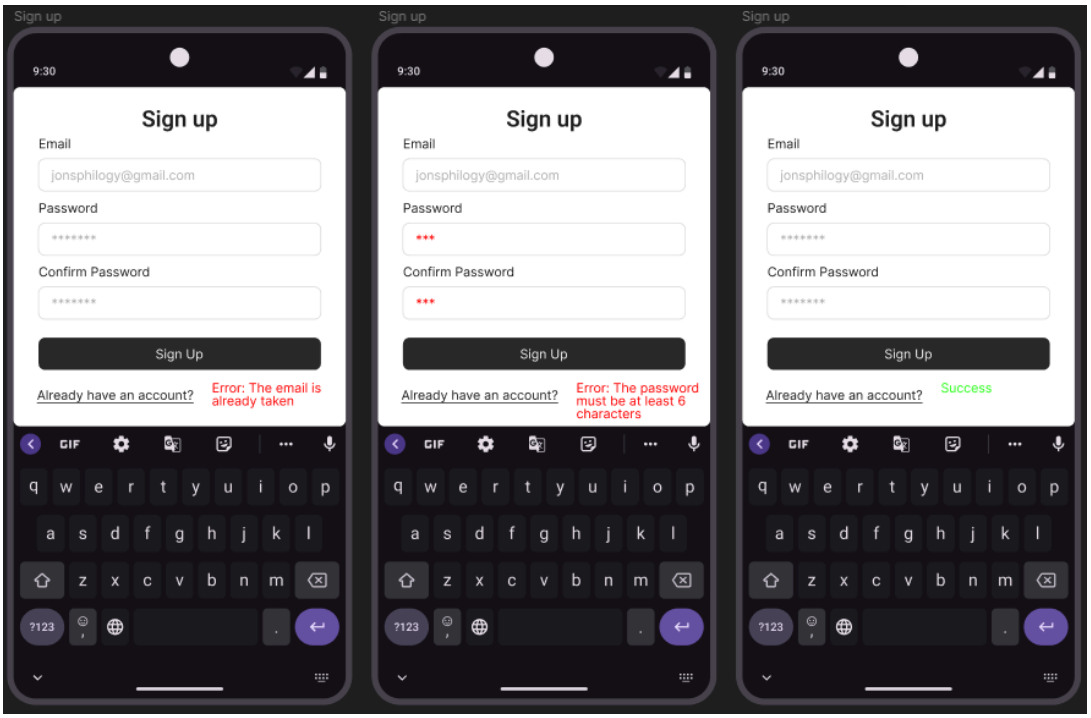
- Content:
  - The Login screen contains:
    - Input fields for email, password.
    - Sign in button.
    - A Sign up link for signing up screen.
    - A Forgot password link for reset password screen.
  - There are 2 states which relate to Failed and Succeed in picture 4, 5 (from left to right):

    - Picture 4: If you enter wrong password or username, there will be a red notice for that
    - Picture 5: If you log in successfully, there will be a green notice telling you to wait for processing, then you will move to the next screen

- Purpose:
    - The Login screen is used for the users to login to their accounts, this screen is the first scene that the user sees when opening the app.
- Instruction:
    - To Login: the user fills in their email, password and presses the sign in button.
    - On screen, an error message will appear after pressing the button if the information is incorrect.
    - To navigate between the screens, press the link “Don’t have an account”.
    - To reset their password, the user can press the “Forgot password?” link in the Login screen.

2.2. Sign up

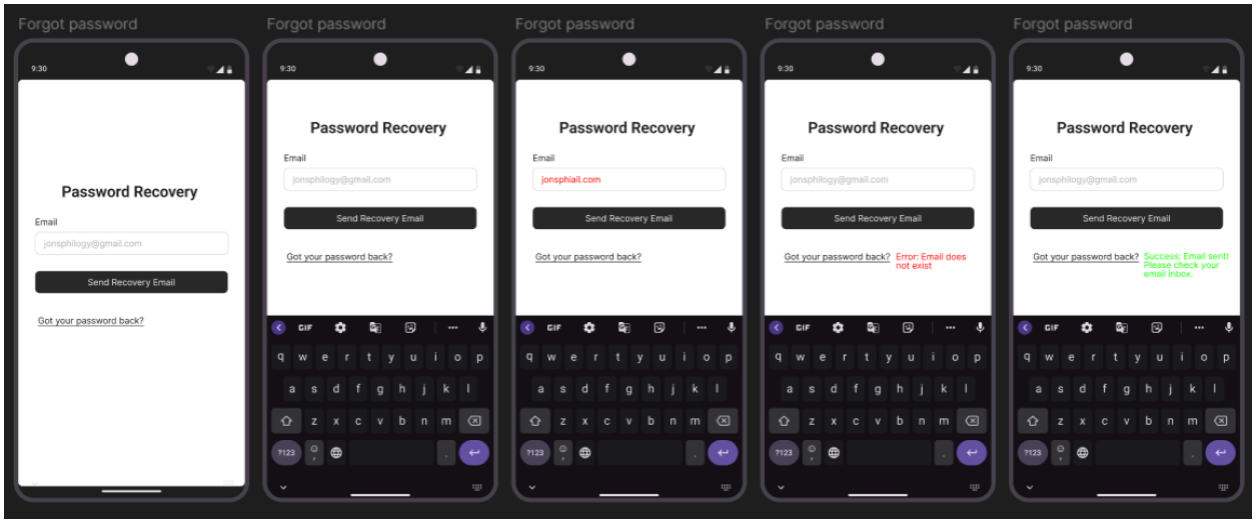




- Content:
  - The Signup screen contains:
    - Input fields for email, password, confirm password.
    - Sign up button.
    - A Sign in link to switch between the two screens.
  - Here is a full process of creating account in details (from left to right):
    - Picture 1: the format of the Interface
    - Picture 2, 3, 4: Inputting email, password and confirm password (the red fields show invalid inputs)
    - Picture 5: Cannot create account due to the email address has been taken
    - Picture 6: Cannot create account due to length of the password is not enough
    - Picture 7: Succeed in creating new account
- Purpose:
  - The Sign up screen is used for the users to create their accounts, this screen will appear when the user clicks “Don’t have an account”.
- Instruction:
  - To Sign up: the user fills in their email, password twice (for confirmation), and presses the sign up button. Then, an email is sent to them and the user should press the link to verify their email and complete the sign up.

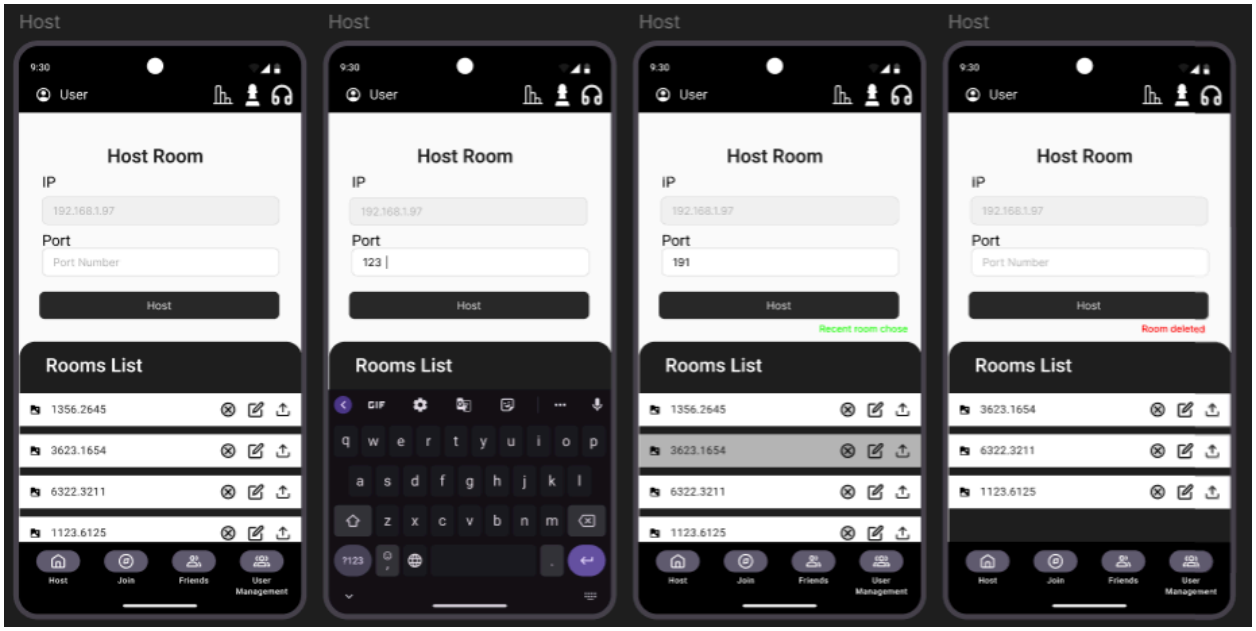
- To navigate between the screens, press the link “Already have an account”.

2.3. Forgot Password



- Content:
  - The screen contains an input field for an email and a button to send the recovery email.
  - The following describe how the the screen functions (see the picture from left to right):
    - Picture 1 and 2 show the screen when entering the password recovery screen and its responsiveness with the phone’s keyboard.
    - Picture 3 shows how the screen displays the error when the email is typed in an invalid form.
    - Picture 4 shows the error message when the email submitted does not exist, and other error messages.
    - Picture 5 demonstrates the message which the user will receive if they successfully send the recovery emails.
- Purpose:
  - The screen is used for the users who have forgotten their password.
- Instruction:
  - Enter the email address of the account of which the password is forgotten, then press “Send Recovery Email”.
  - The user can then check the email inbox and press a link to recover their password with Google Firebase instruction.

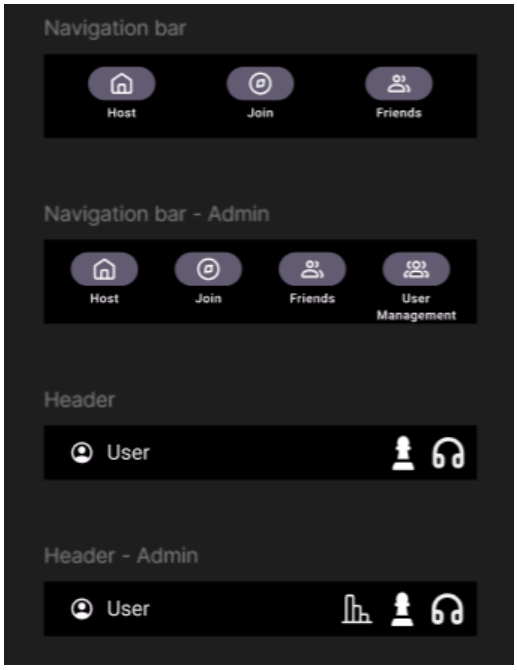
2.4. Host page

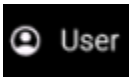


- Content:
  - Both admin and normal users after logging in will enter the home page.
  - The IP address of the user in the LAN network is automatically read by the application and displayed in the IP field.
  - The user can fill in their desired Port to host the chat room.
  - On the Room List section:
    - There is a list of created rooms of the user.
    - They can edit the room by pressing (see the screen in 2.14 Customize chatroom).
    - The user can choose the room to host by pressing the button (the chosen room is displayed as Picture 3 described).
    - They can also remove unwanted room by pressing the button (successful removal is displayed as Picture 4 described)
- Purpose:
  - Host and edit room.
- Instruction:
  - Press the choose room button as described to select a room.
  - The user fills in their port number, then presses the host button to host their room. Once the room is hosted, the user should be taken into the room described in 2.15.

- The user can also edit the room with the edit room button or remove the room as described above

2.5. Header/Footer



- The Header and Footer is used for almost every screen outside of the LAN chat room, they are used for navigating between different screens of the application.
- The Header:
  - For normal user:
    -  is for opening the user profile screen.
    - is for opening the chatbot screen.
    - is for editing the customizing/importing 3d models.
  - For admin user:
    - is for opening the analytic screen.
- The Footer:
  - For normal user:
    - : is the button to return to the home screen.

-

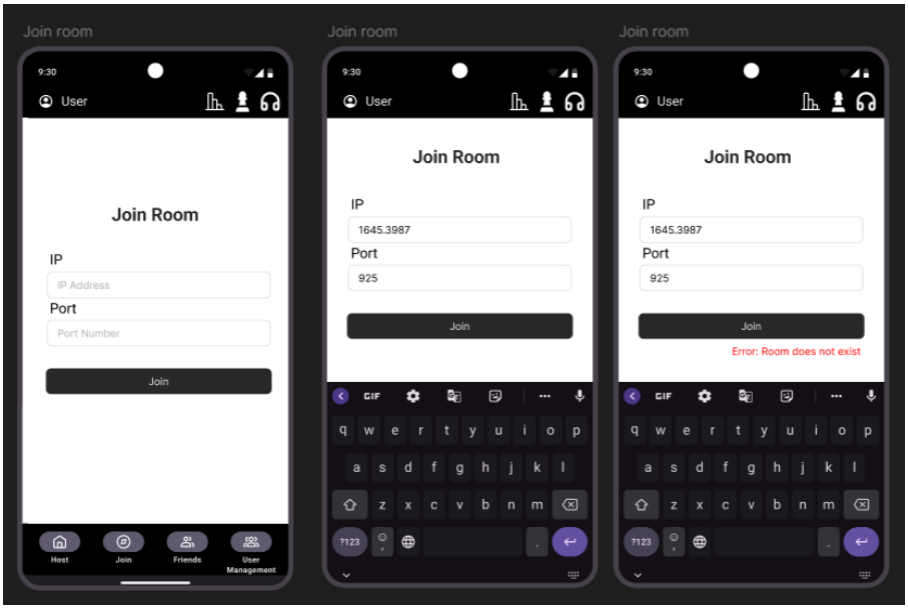
: opens the join room screen.
-

: opens the friend list screen.

- For admin user:
  -

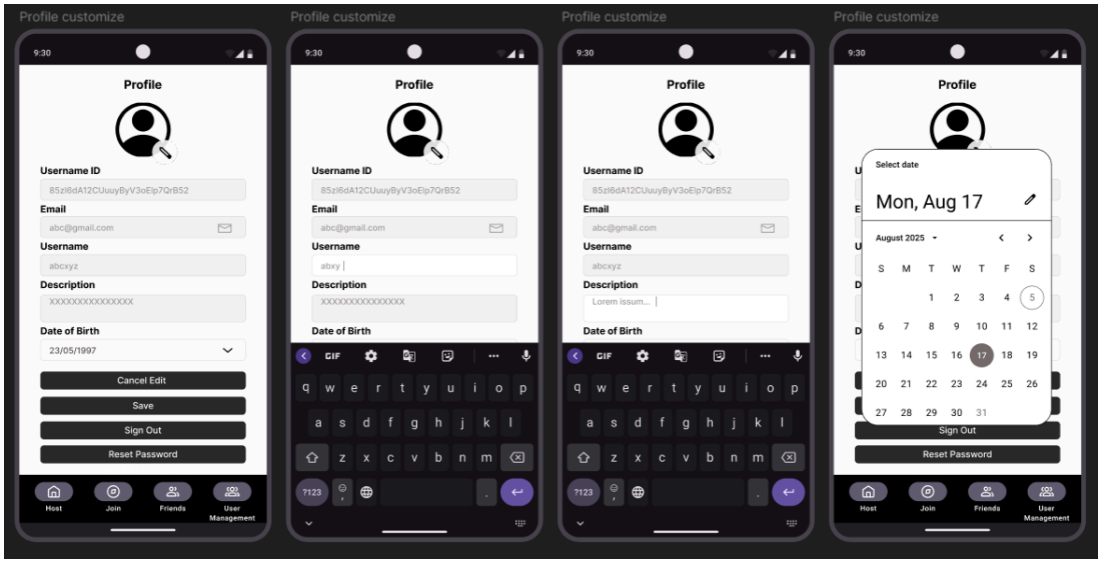
: opens the user list screen.

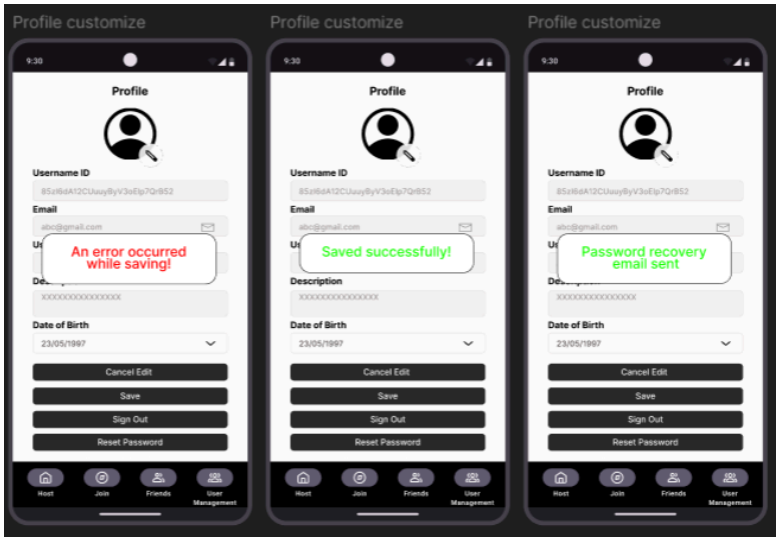
2.6. Join room



- Content:
  - The room contains 2 input fields for the IP address and Port of the room which the user wants to join.
  - The join button is used for joining the corresponding room of the IP and Port number.
  - If the information is invalid, a message will be displayed as described in Picture 3.
- Purpose:
  - The page is used to join in the online chat room which is hosted by other users.
- Instruction:
  - The user fills in the required information and presses the join button.
  - Then, it should take them a few seconds to connect to the room.
  - Once joined, they should see the chat room as described in 2.15.

2.7. Profile customization



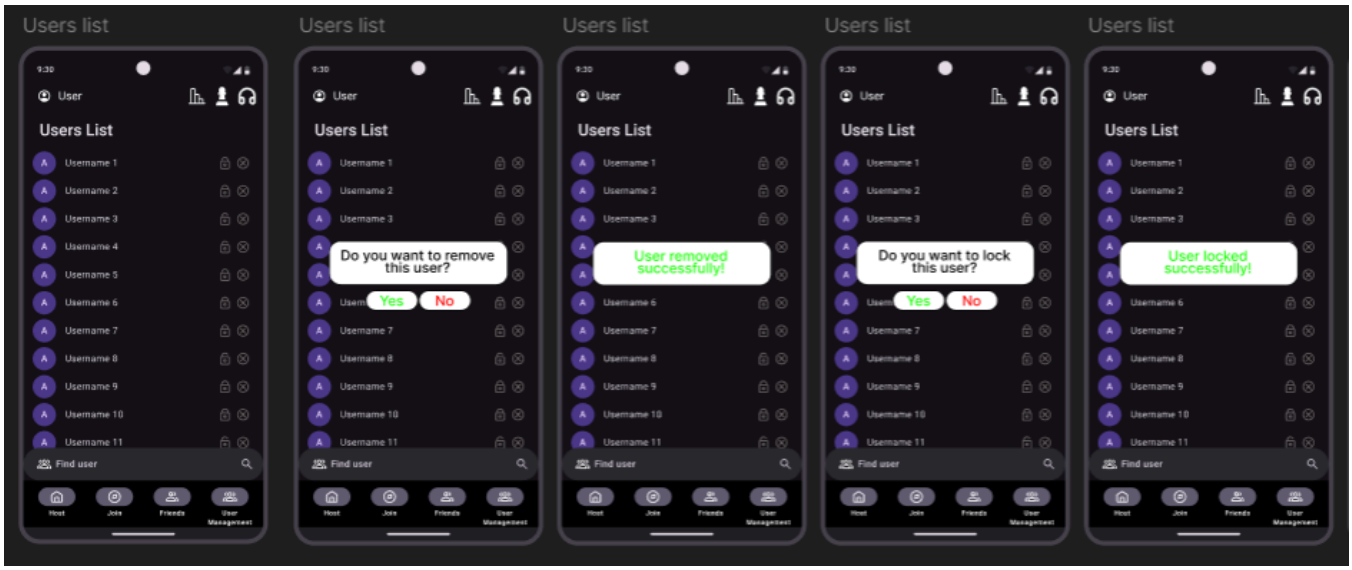


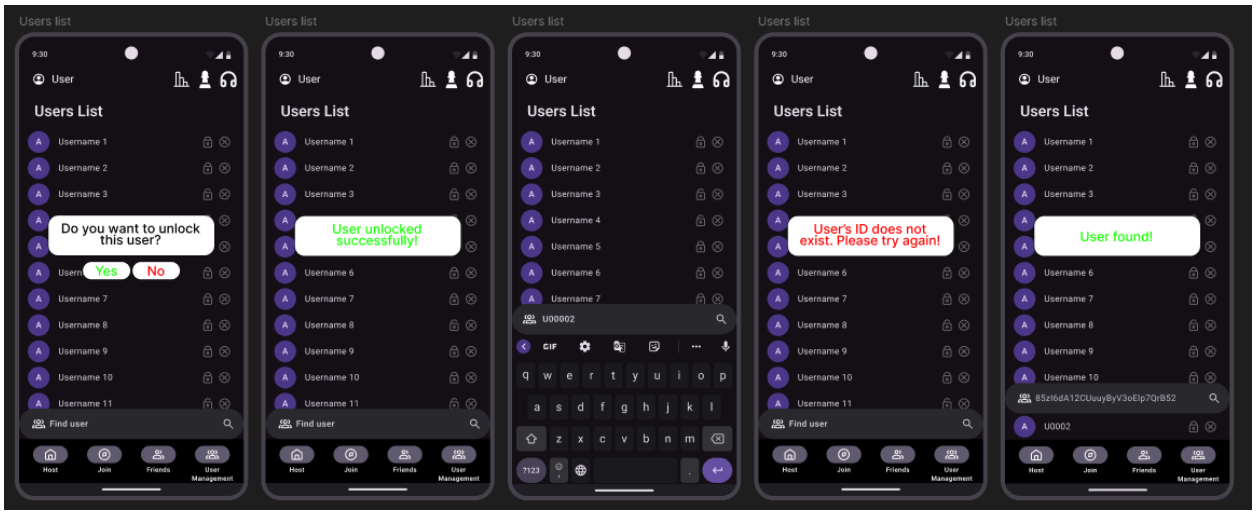
- Content:
    - An image of the user's profile avatar.
    - The user's display username.
    - The user's logged-in email address.
    - The user's birthday.
    - The profile's description.

- A button for the user to save their changes on the profile. Once pressed, a message will be popped up to show the user the result.
- A button for logging out.
- A button to send a password recovery email to the user.

- Purpose:
  - Review and edit the user profile which will be displayed to other users.
  - Logging out.
  - Resetting password.
- Instruction:
  - The user presses the field that they want to edit and fills in the information.
  - Presses save changes to save the information.
  - The user can also press the reset password to receive an email for resetting their password.
  - Picture 2 and 3 describe how the user edits their username and description.
  - Picture 4 shows how the birthday can be edited.

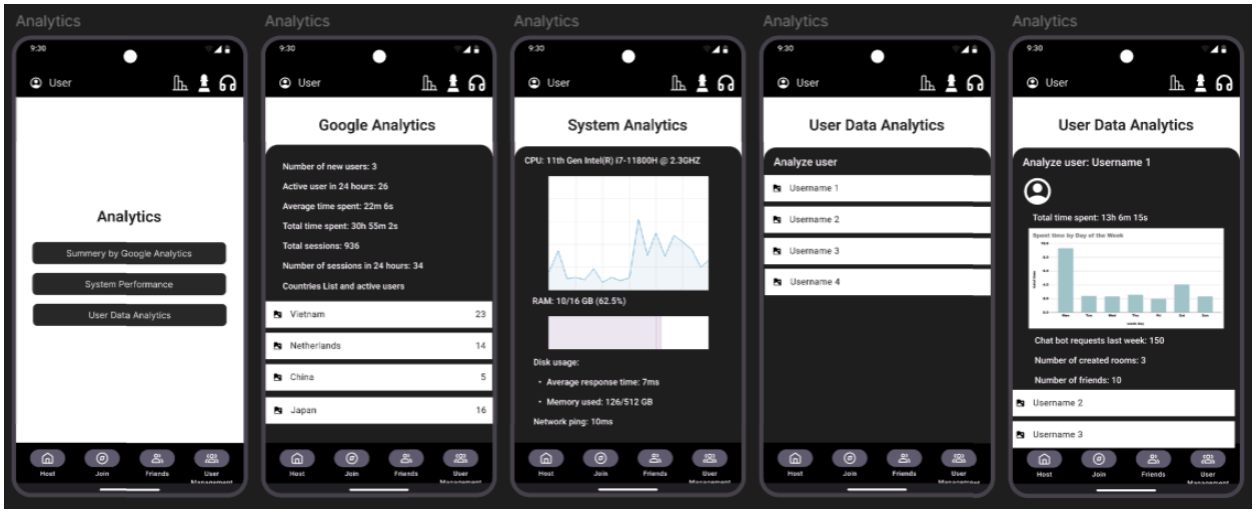
2.8. User list for admin





- Content:
  - A list of created accounts. Each item contains:
    - The user's display image and username.
    - The button to remove the user . If the button is clicked, a pop-up message will appear for the admin to confirm deleting the user (Picture 2). A message will appear to notify the admin of the result if they clicked "Yes" (Picture 3)
    - The button to lock or unlock the user . If the button is clicked, a pop-up message will appear for the admin to confirm locking or unlocking the account (Picture 4, 6). A message will appear to notify the admin of the result if they clicked "Yes" (Picture 5, 7)
  - A search bar for searching a specific user (Picture 8 shows how the search bar is responsive with the keyboard).
    - If the ID does not exist, a message will be popped up (Picture 9).
    - If an account is found, a message will appear and the admin can see the found account below the search bar (Picture 10).
- Purpose:
  - The screen is used for admins to manage normal users:
    - Remove a user.
    - Lock or unlock an account.
  - The admin can also keep track of the list of created accounts.
- Instruction:
  - Search for a specific user by filling their username in the search bar.
  - Press the remove button to remove the user from the system,
  - Press the lock/unlock button to lock/unlock the user.

2.9. Data analytics for admin

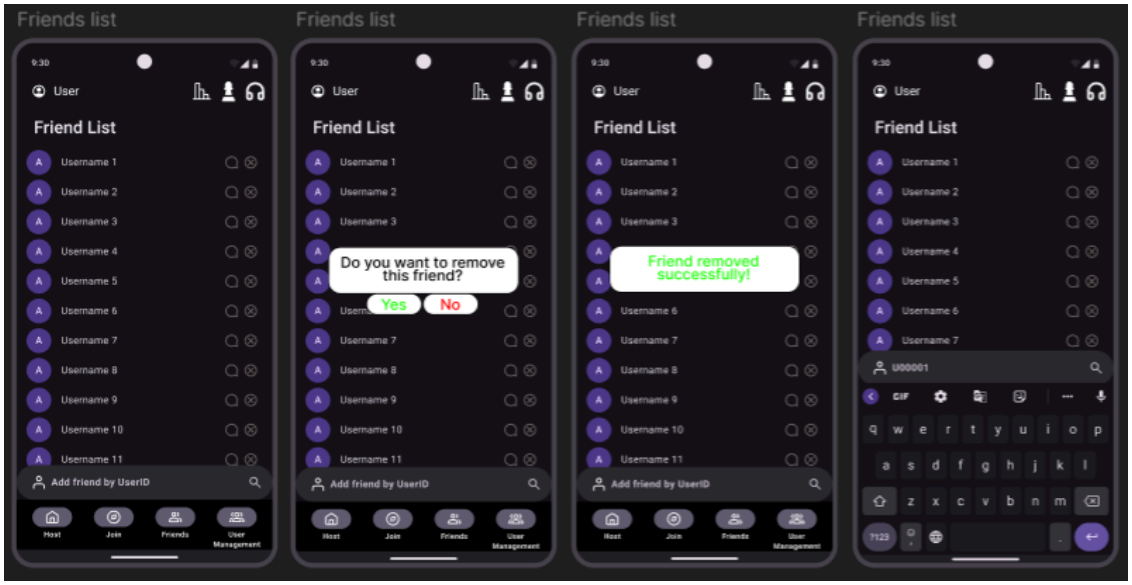


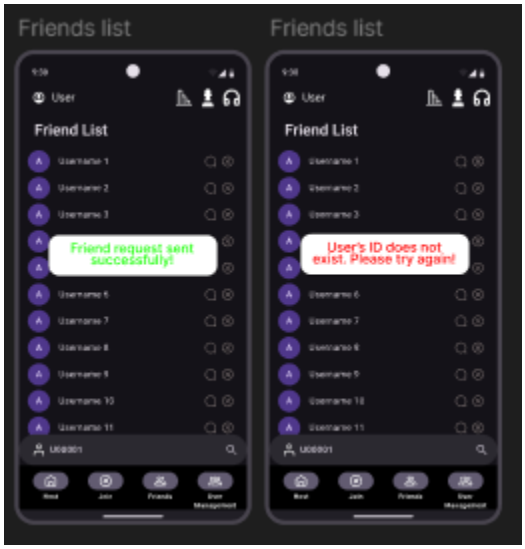
- Content:
  - The admin will see the screen in Picture 1 when they first enter the analytics screen.
  - There are 3 buttons:
    - “Summary by Google Analytics”: Open the screen in Picture 2, the displayed information contains:
      - Number of new users
      - Active user in 24 hours
      - Average time spent
      - Total time spent
      - Total sessions
      - Number of sessions in 24 hours
      - A list of countries and the corresponding number of active users.
    - “System Performance”: Open the screen in Picture 3, the displayed information contains:
      - Information about the CPU of the server computer, and a graph representing the CPU usage overtime.
      - The used RAM of the server.
      - Memory disk of the server.
      - The network status of the server.
    - “User Data Analytics”: Open the screen in Picture 4. This screen holds a list of users, when clicked on a specific user, their specific data will be displayed (Picture 5):
      - The user’s avatar.

- Their total time spent on the application and the time spent on each day of the week in the form of a bar chart.
- Their use rate of the chatbot.
- The admin can also navigate to the user's friend data analytics.

- Purpose:
  - The screens are used for the admin to follow the activities of the system.
  - The admins can then use the information gained to monitor the system.

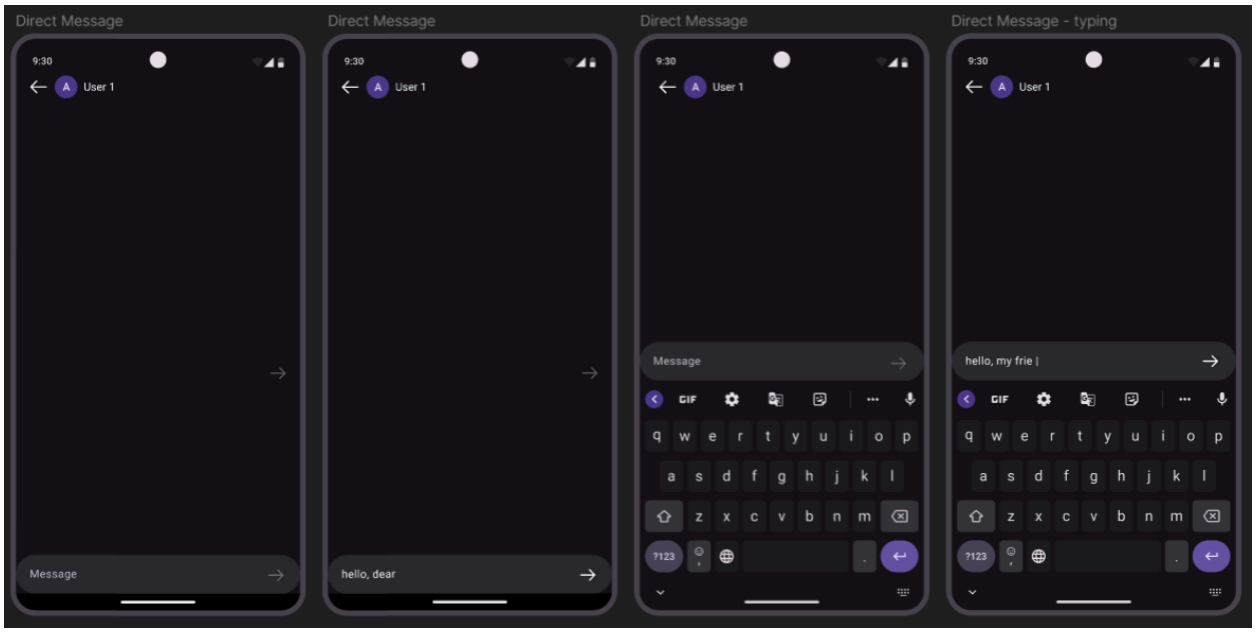
2.10. Friend list

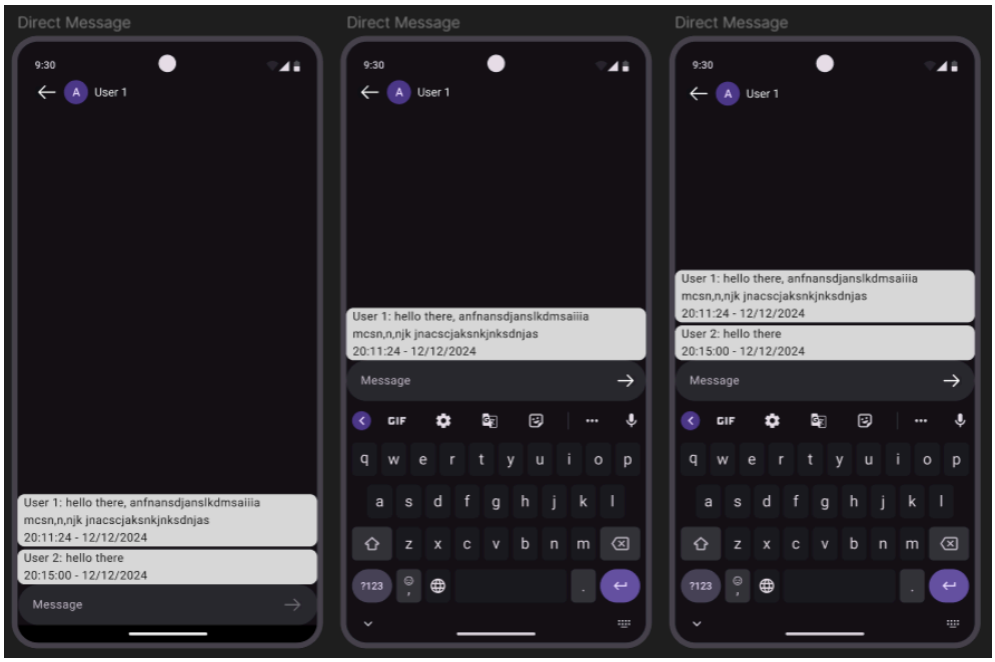


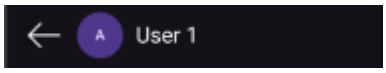


- Content:
    - The friend list contains a list of friend users.
    - Each friend item on the list contains:
        - The friend's username, their display avatar
        - A button direct messaging , when clicked, the button will send the user to the direct message scene of the corresponding friend (see 2.11.).
        - A button removing the friend. , when clicked, a pop up message will appear for the user to confirm the removal (Picture 2); if the "Yes" is clicked, a notice will appear as described in Picture 3.
    - A search bar for adding friend:
        - The user can fill in their friend's ID and press the to send a friend request.
        - The result of the search will be displayed in pop up messages (Picture 5, 6)
- Purpose:
    - Allow the user to view their friend list and remove unwanted friends.
    - Open the direct message screen.
    - Add a friend.

2.11. Direct messages



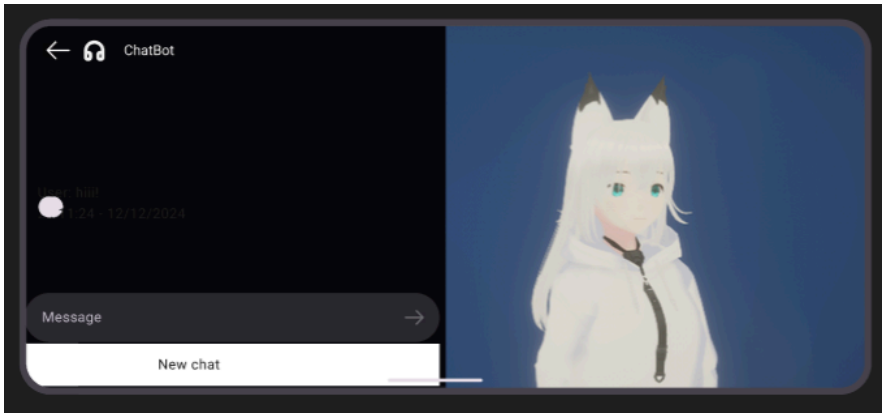


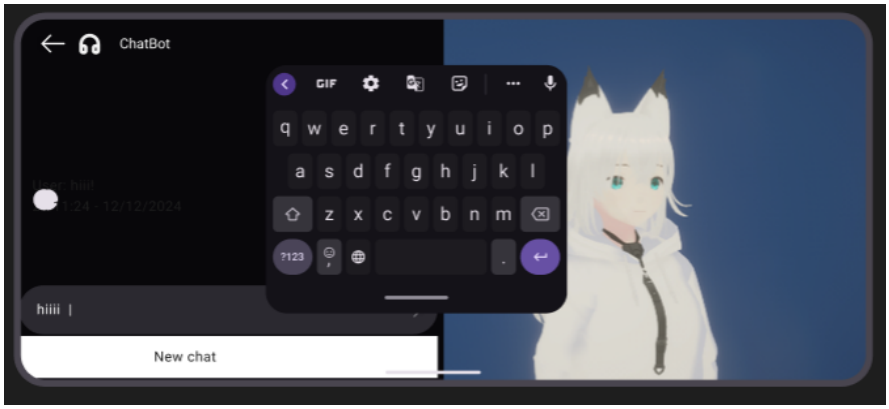
- Content:
    - On the top of the screen, there is a tab 

:
        - The user can go back to the friend list screen by pressing the arrow.
        - The friend's avatar and username are also displayed.
    - The direct messages are represented by the grey boxes (Picture 5, 6, 7), each containing:
        - The username of who sent the message
        - The message content.
        - The time when the message was sent.
    - There is a bar to display the current message which is being typed by the user

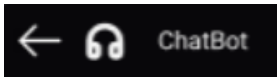
- Purpose:
    - The screen is used to display the direct message between the user and their friend.

2.12. Chat with bot



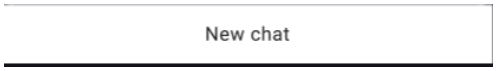


Content:

- On the top of the screen, there is a tab 

, the user can go back to the home screen by pressing the arrow.

- There is a bar to display the current message which is being typed by the user

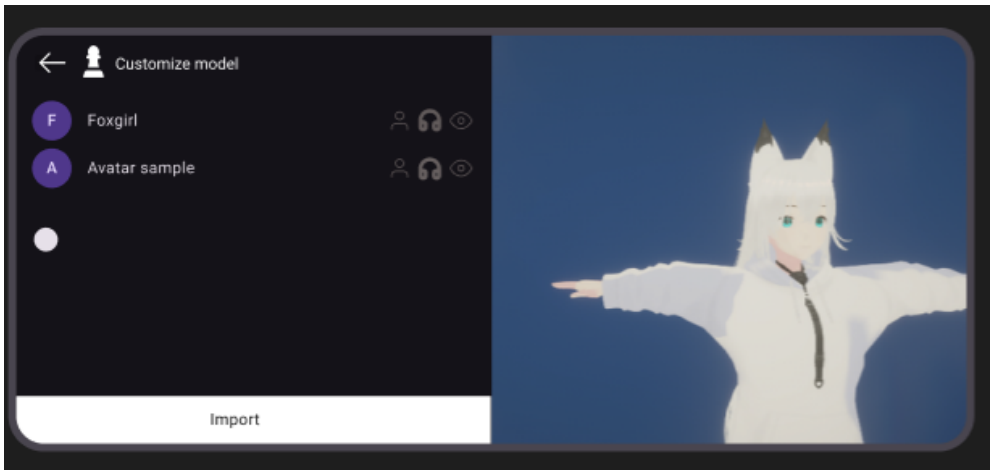
- There is a button to create new chat 

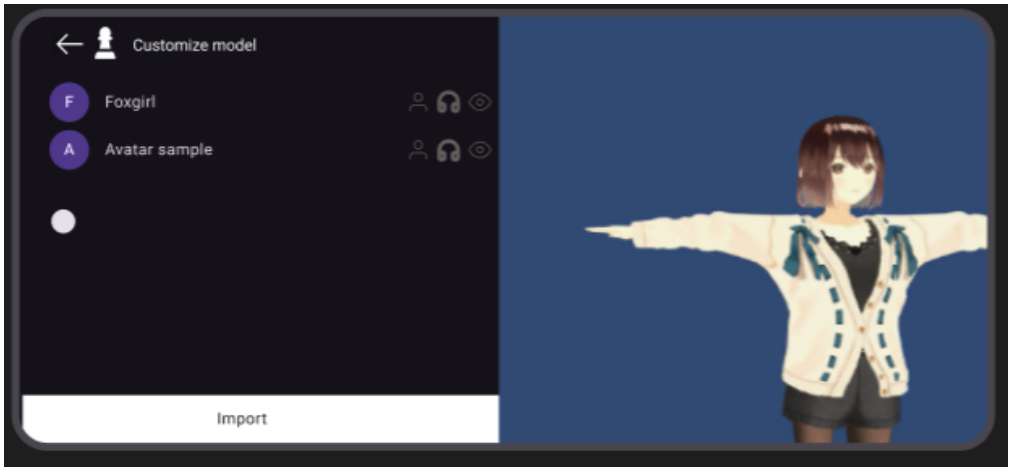
- The chatbot and user messages will be displayed in gray boxes.
- The chatbot will also show its emotion and reaction throughout the conversation (Picture 2).

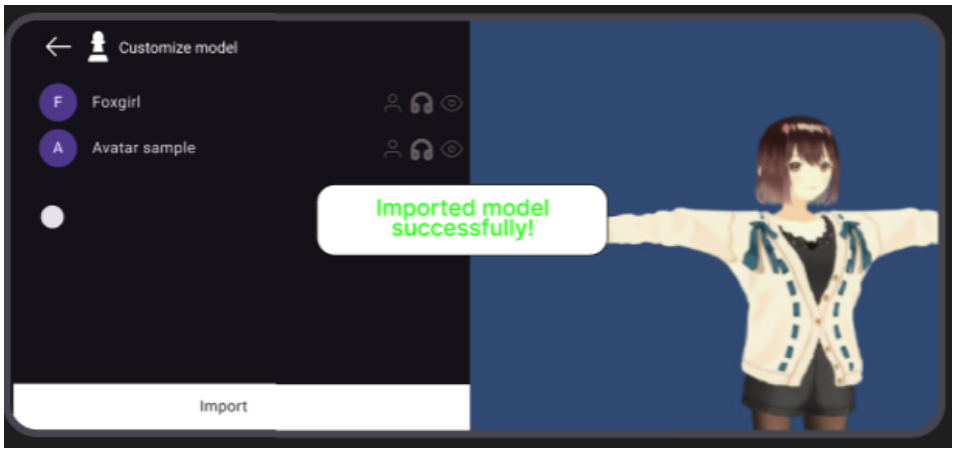
Purpose:

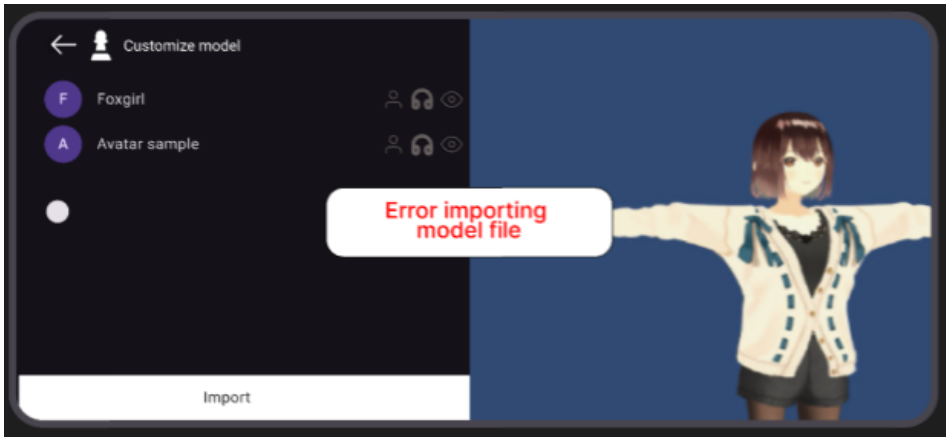
- The screen is used to display the message between the user and the chatbot.

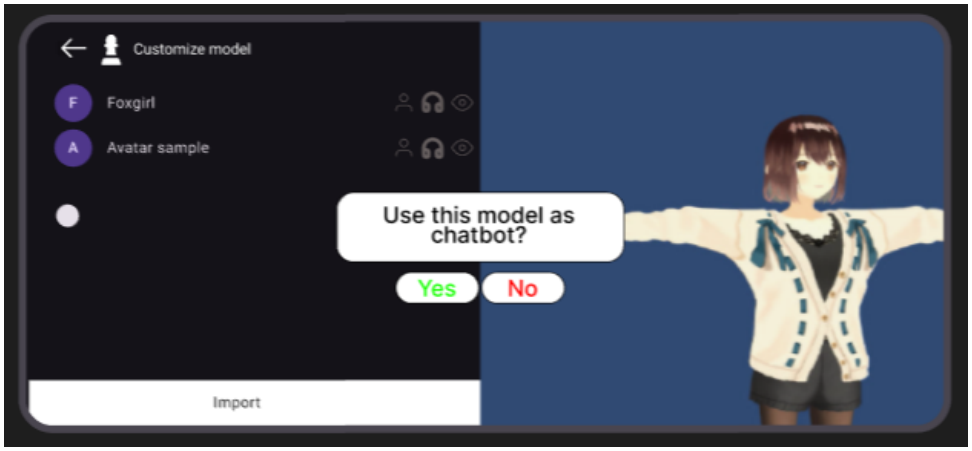
2.13. Customize character

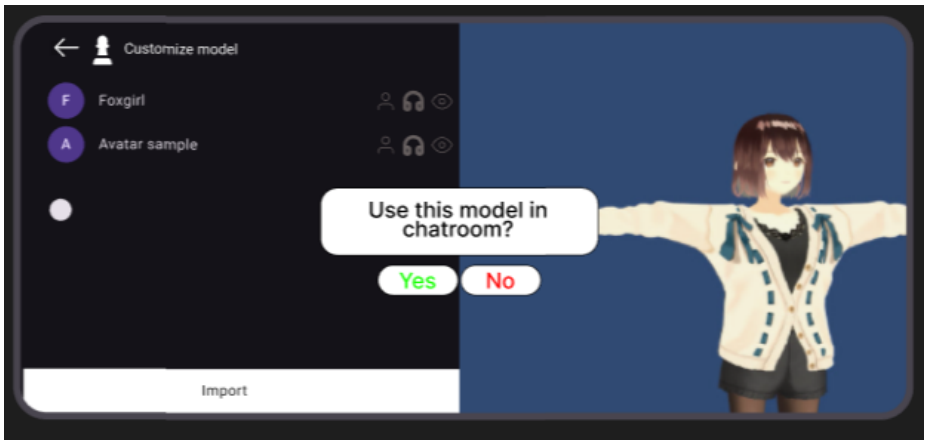




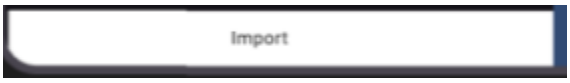

Customize model
Foxgirl
Avatar sample
Imported model successfully!
Import


Customize model
Foxgirl
Avatar sample
Error importing model file
Import


Customize model
Foxgirl
Avatar sample
Use this model as chatbot?
Yes
No
Import

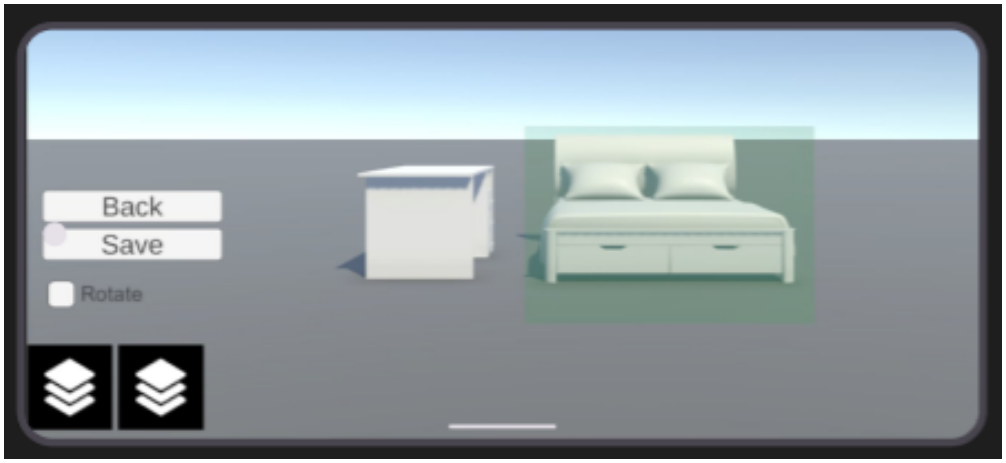


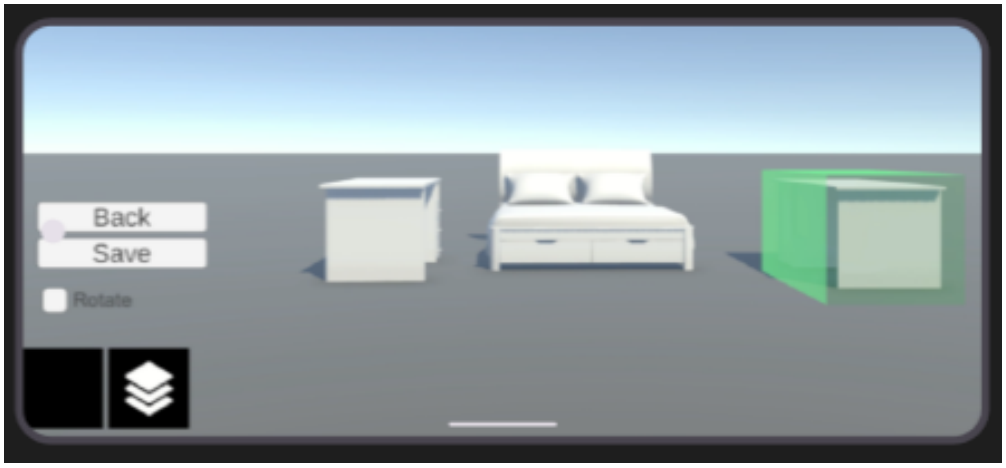
- Content:
  - On the bottom left of the screen, there is an import button

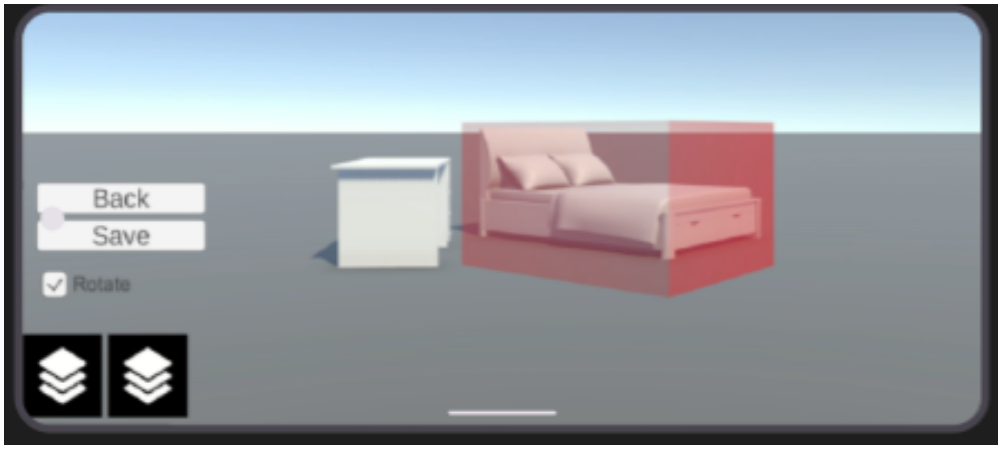
    

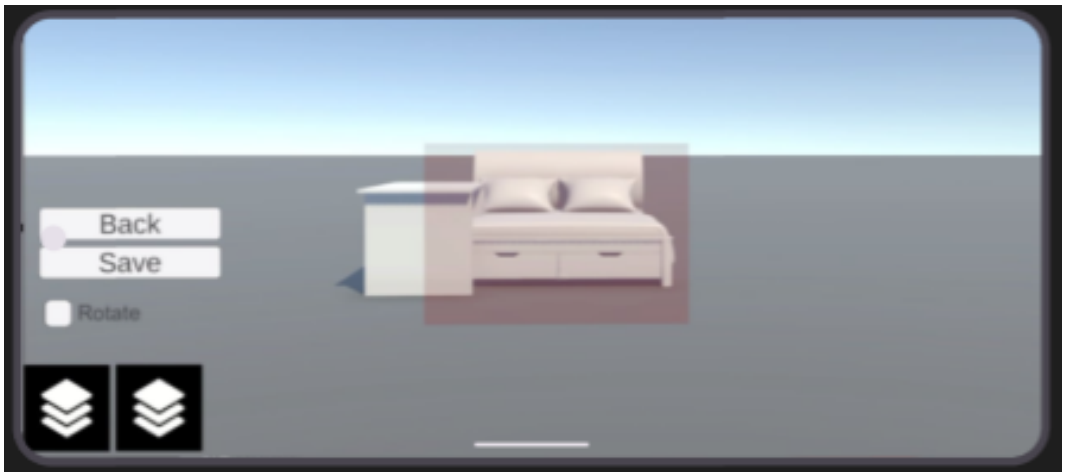
    , allows users to import their 3D characters, when clicked, it opens the device's file explorer for the user to select their 3D model file.
    - The result of the import will be displayed as described in Picture 3, 4.
  - After importing, the models with be shown on the list
  - There are 3 button to manage the imported models:
    - : Set the model for normal character in chat room
    - : Set the model for chatbot, see Picture 5, the selection is completed when the user presses "Yes" and otherwise if they presses "No".
    - : Preview the model, see Picture 6, the selection is completed when the user presses "Yes" and otherwise if they press "No".
- Purpose:
  - The screen shows how users customize their character
  - The user can choose the purpose for each model here.
  - The screen also allows users to import their own 3D models.

2.14. Customize chat room

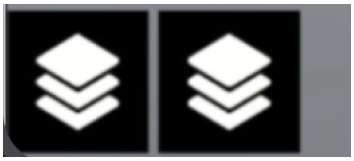


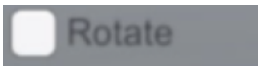




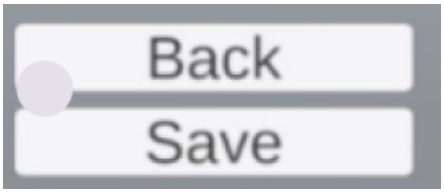


- Content:
  - On the bottom of the screen, there is a list of objects can be used:



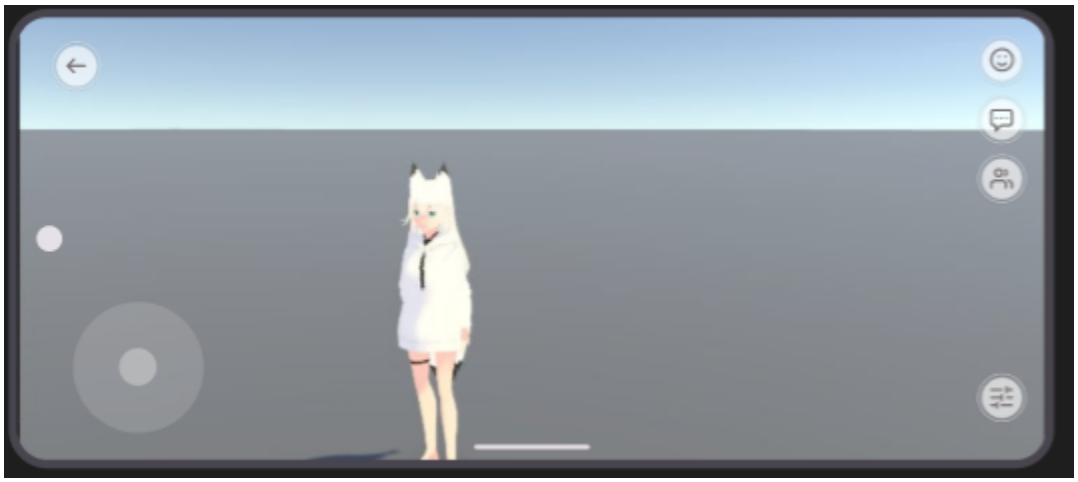
  - There is a button to rotate the object: 

  - Two control button ‘Back’ to exit customize and ‘Save’ to save current customization:



- Purpose:
    - The screen shows how user customize the room
- Instructions:
    - User navigates to the object on the panel
    - Drags and places into the room
    - Click on rotate button to rotate the object to the desired position
    - Click on the ‘Save’ button to save current configuration
    - Click on the ‘Back’ button to exit customize

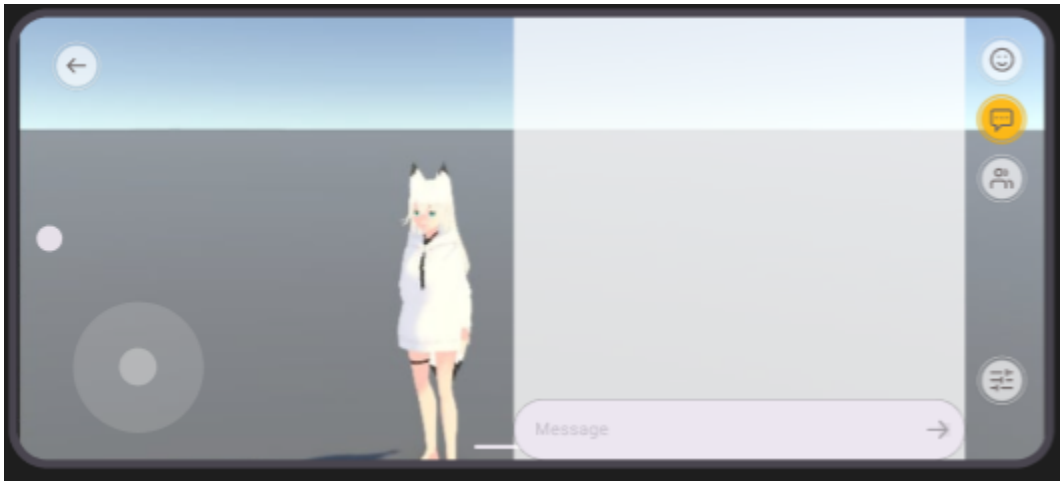
2.15. Inside an online chatroom

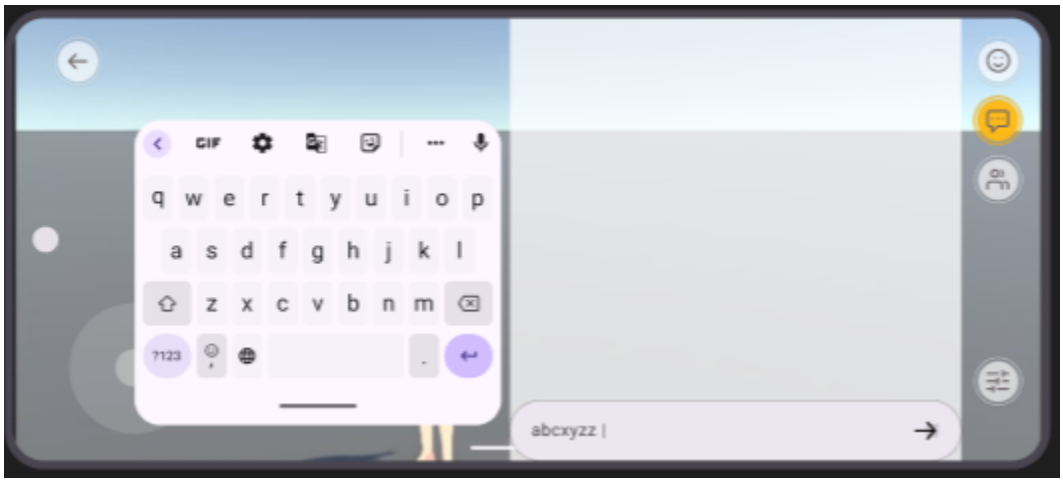


- Within a chat room, the following features will be available:
    - Moving controller:

- Express emotions:
- Chatting:
- View participants:
- Manage room (for host only):
- Exit room:

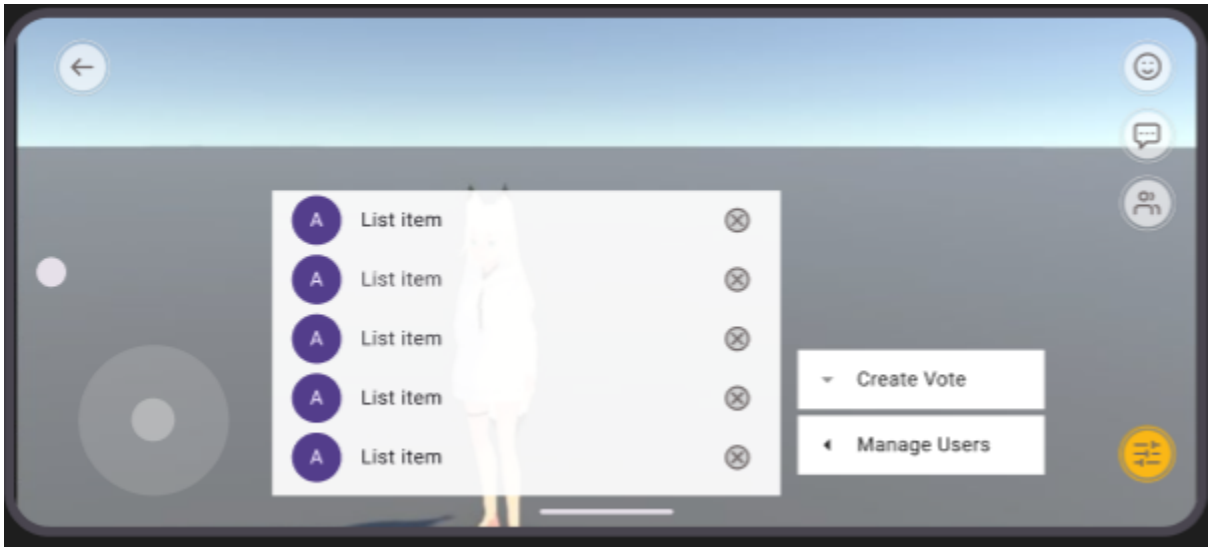
2.16. Inside an online chatroom: chatting

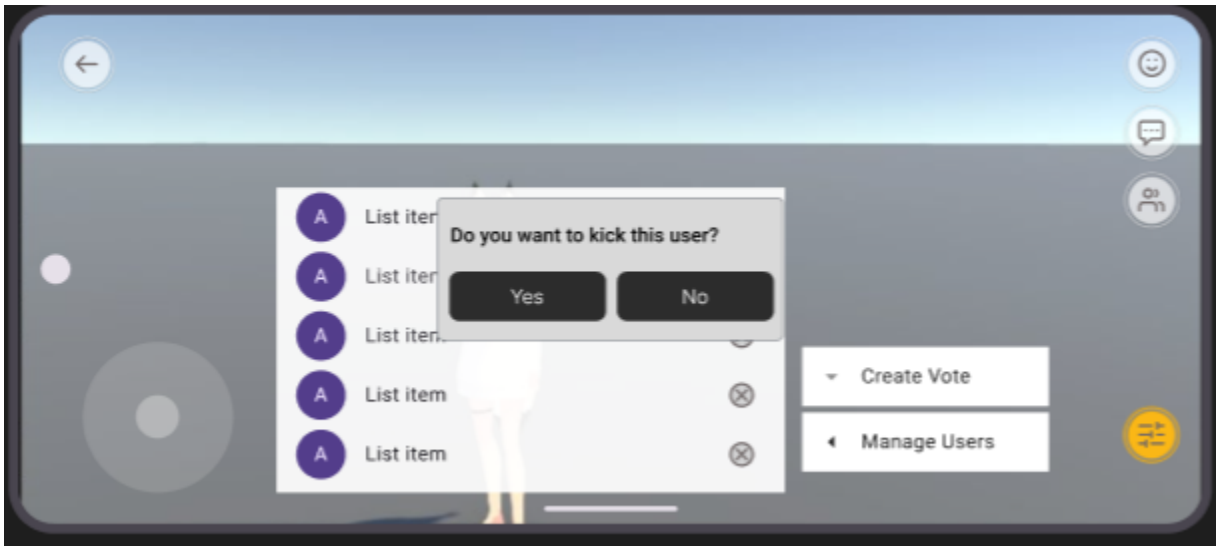




- Content: This UI shows how the participants chat with each other inside an online chatroom.
- Instructions:
  - Users navigate to the icon and open the room's chatbox.
  - In the message bar, the user fills in their message and clicks on the arrow button to send their message.

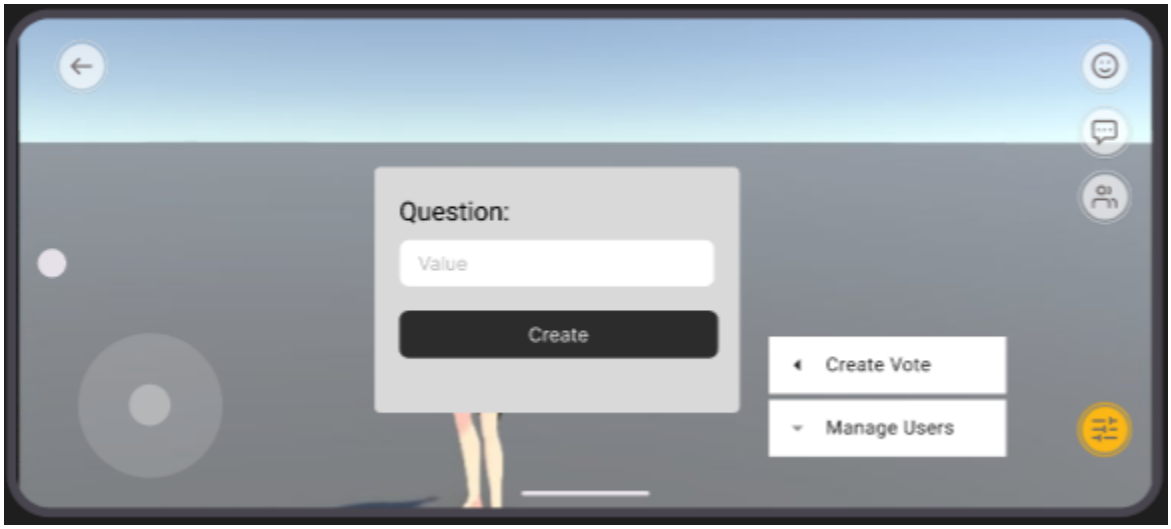
2.17. Inside an online chatroom: managing participant list

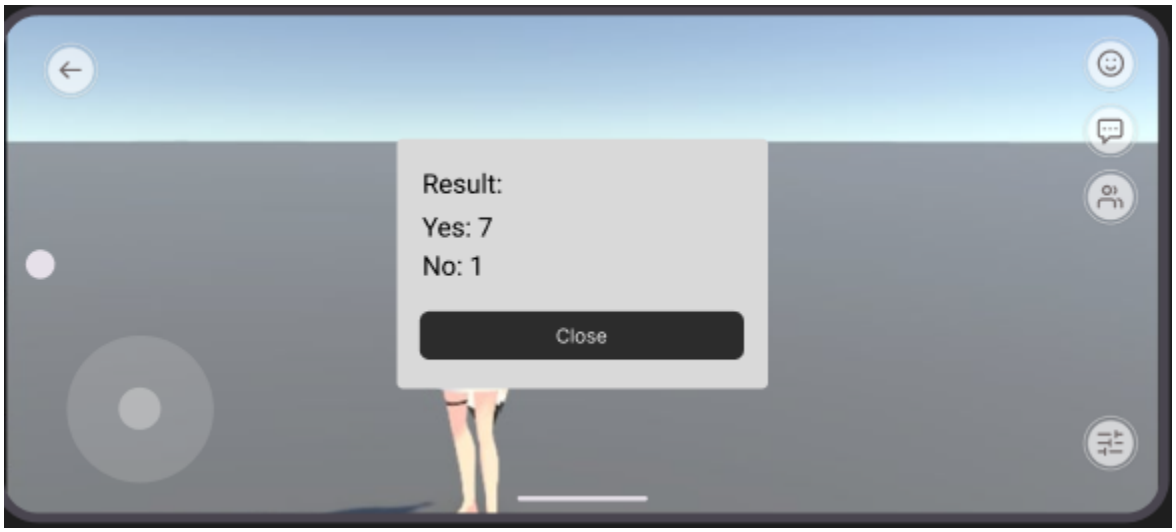




- Content: This UI shows how the host of the room can manage the chatroom's participants.
- Instructions (for Host only):
    - User navigates to the icon and open the room's management settings.
    - Then click on Manage Users dropdown.
    - A list of users participating in the room will be displayed.
    - Click on button to remove a specific participant.
    - A pop-up message will appear to confirm if the host want to remove the participant
    - Click on 'Yes' to remove the participant or 'No' to not remove the participant

2.18. Inside an online chatroom: Voting





- Content:
    - This UI shows how to make a Voting in an online chatroom.
    - There are 3 pictures (from top-bottom) indicate:
        - Picture 1: Open the room settings, and choose “Create vote” and the field to input the question
        - Picture 2: The question will appear on participants’ screen to answer
        - Picture 3: Waiting UI for all the participants to answer
        - Picture 4: The final result which will be displayed to all participants after the voting is completed.

  Purpose:
    - If the users want to collect the participant's opinion about a topic.

Instruction:

- At the bottom-right corner of the screen, there is an icon , user can click it to appear a list of actions inside a chatroom, which includes “Create vote”
- Then the users need to input in the “Question” field as the question, then the “Value” as the answer to choose

2.19. Inside an online chatroom: showing emotion

- Content:
  - This UI helps users to choose the emotion for its character.
  - There are 2 pictures (from top-bottom) indicate:

    - Picture 1: Open a list of emotions
    - Picture 2: Choose an emotion to cast on character

- Purpose:
    - Express the feeling to other participants
- Instruction:

    - In the top-right corner of the screen, there is a button , user will click on it, then it will show a list of Emotions.
    - Users will choose 1 of those emotions in order to cast it on their character.