Clinet

+ socketClient : Socket
+ clientID : String
+ out : ObjectOutputStream
+ in : ObjectInputStream
+ ReceivedMessage : Message
- callback : Consumer<Serializable>

+ Client (call : Consumer<Serializable>)   <<constructor>>
+ run () : void
+ send (newMessage : Message): void
+ joinChat (userID : String) : boolean

Threads

<<interface>>
Runnable

Server

+ count : int
+ clients : ArrayList<ClinetThread>
+ listOfClientsID : set<String>
+ in : ObjectInputStream
+ server : TheServer
- callback : Consumer<Serializable>

+ Server (call : Consumer<Serializable>) <<constructor>>

ClientThread

+ connection : Socket
+ count : int
+ clientID : String
+ out : ObjectOutputStream
+ in : ObjectInputStream

+ ClientThread (s : Socket, count : int) <<constructor>>
+ run() : void
+ validateUserName() : void
+ updateClients (newMessage : Message)
+ sendUserNames() : void

Threads

TheServer

+ run : void

Threads

Message

+ <u>SERIALVERSIONUID : long</u>
+ newUser : boolean
+ secreteMessage : boolean
+ userID : String
+ MessageInfo : String
+ userNames : set<String>
+ recipient : String

An overview of application and transitions between scenes

Login page

Enter a unique username

Join chat

Chat page

New message from user_123

User: ABC   Everyone online

user_ABC said: Hi all
user_123 joined chat
user_123 said: Hi user_ABC

type your message here   Send

Login page

Login page

- User's first intreratction with app

- User is prompted to input a username

- User must input a username that is not already in use

- Nonunique username selection will be rejected and user will be promted to reselect username

Enter a unique username

Join chat

- Unique username is accepted and sent to server
- User is transitioned into chat scene

- Nonunique username is rejected
- User is prompted to reselect a username

Chat page

Chat page

- **Users communicates with other users online via chat page**
- **User can initialize private messages or**
- **New messages are displayed to user in notifcation bar and on chat box**

Box to display username

Displays chat between user and selected online user

- **Text box to input messages**
- **On action sends message with identical format as send button**

(Chat box - orange panel)

New message from user_123

User: ABC   Everyone online

user_ABC said: Hi all
user_123 joined chat
user_123 said: Hi user_ABC

type your message here   Send

Displays notifications of new information from server

- **Displays list of all users online**
- **On action populates existsing chat between user and selected online user**

- **On Action**
- **Collects message in text box**
- **Creates a message object with message collected**
- **Set recipient to current user selected chat**
- **clears text box for new message**