

Chat server-client using socket.io@3

Prerequisites

- node.js
- rabbitmq: for intercom through services
- redis: for caching user online status or chat messages (optional)

Modules

- handlers (methods to interact with the chat-server)
- socket-server (socket-server)
- socket-client (an example for a socket-client)

Installation

1. Set up EC2 instance (Ubuntu)

- Use the "Ubuntu Server 18.04 LTS (HVM), SSD Volume Type" instance type.

2. Install **docker** and **docker-compose**

```
bash ./docker_installation.sh
```

3. Install Node.js (v12)

```
bash ./nodejs_installation.sh
```

4. Install and run **rabbitmq** and **redis** for the socket-server

- Create and **./socket-server/.env** or clone the **./socket-server/.env.example**

```
cp ./socket-server/.env.example ./socket-server/.env
```

- Make sure **docker** and **docker-compose** is installed first
- Use **docker-compose** command for installation

```
cd ./socket-server  
docker-compose --env-file ./env up -d
```

- Check if the docker container of `rabbitmq` and `redis` are installed

```
docker ps
```

Handlers for integration

For WebSocker server

Search for `serverHandleMessage` to see how the server handle the chat message

Search for `clientSendMessage` to see how the client send the chat message Search for `clientRenderMessage` to see how the client listen to the chat message, parse it and render the view for it

For API server

Search for `createChatRoom` to see on how the API server handle a user request for creating a new chat room

Search for `leaveUserFromChatRoom` to see how the API server handle to leave a user from a chat room

Demo

- Start the **socket-server**

```
cd socket-server
npm install
cp .env.example .env
npm run start:dev
```

- Start the **socket-client**

```
cd socket-client
npm install
cp .env.example .env
npm run start:dev
```

- Leave a user from a room
 - In the demo, the user with `userId='sylId'` joined to 2 rooms: `6075d914390dfe6e8c0495e7` and `6075d91e7d7a0e01884a24de`
 - Example for leaving user from a room

```
cd handlers
npm install
```

```
cp .env.example .env
node ./example/leave_room.js
```

- Create a new room for users
 - In the demo, a new room will be create for 3 users: `sylId`, `jaxId` and `joeId`
 - Example for creating a new room for users

```
cd handlers
npm install
cp .env.example .env
node ./example/create_room.js
```