Computer Network Final Project

Author

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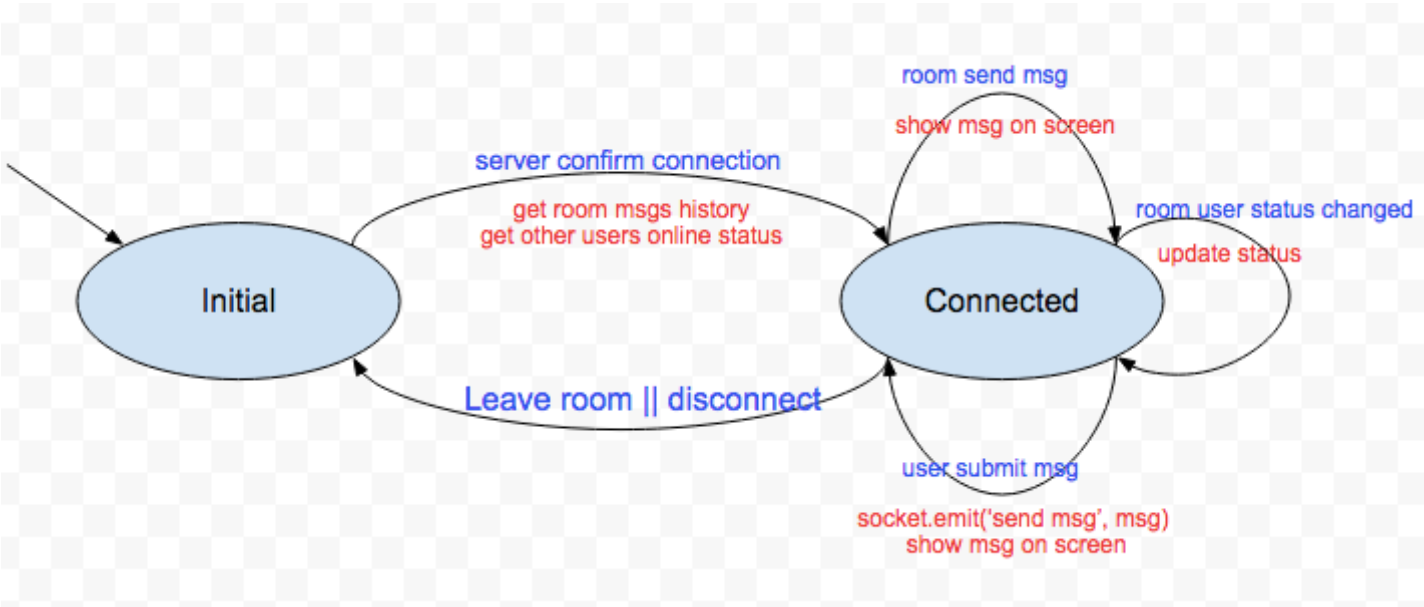
徐嘉琪	B03705041	Frontend(UI, Simple socket.io (http://socket.io))
林祐萱	B03902055	Backend(Message, user status)

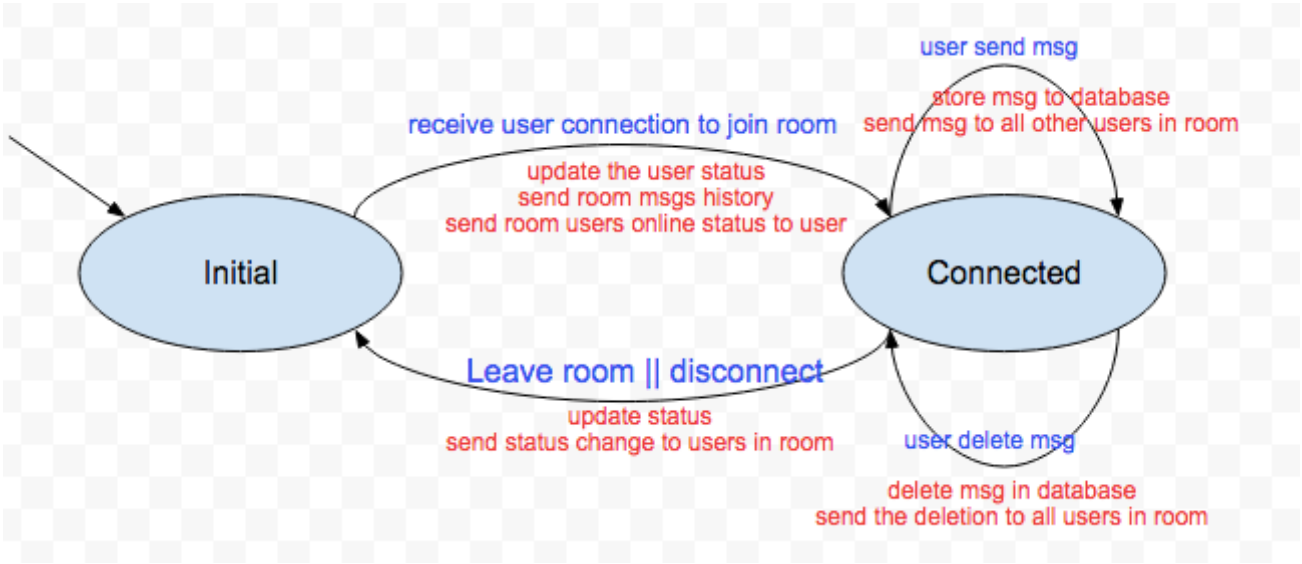
Protocol

Message transfer

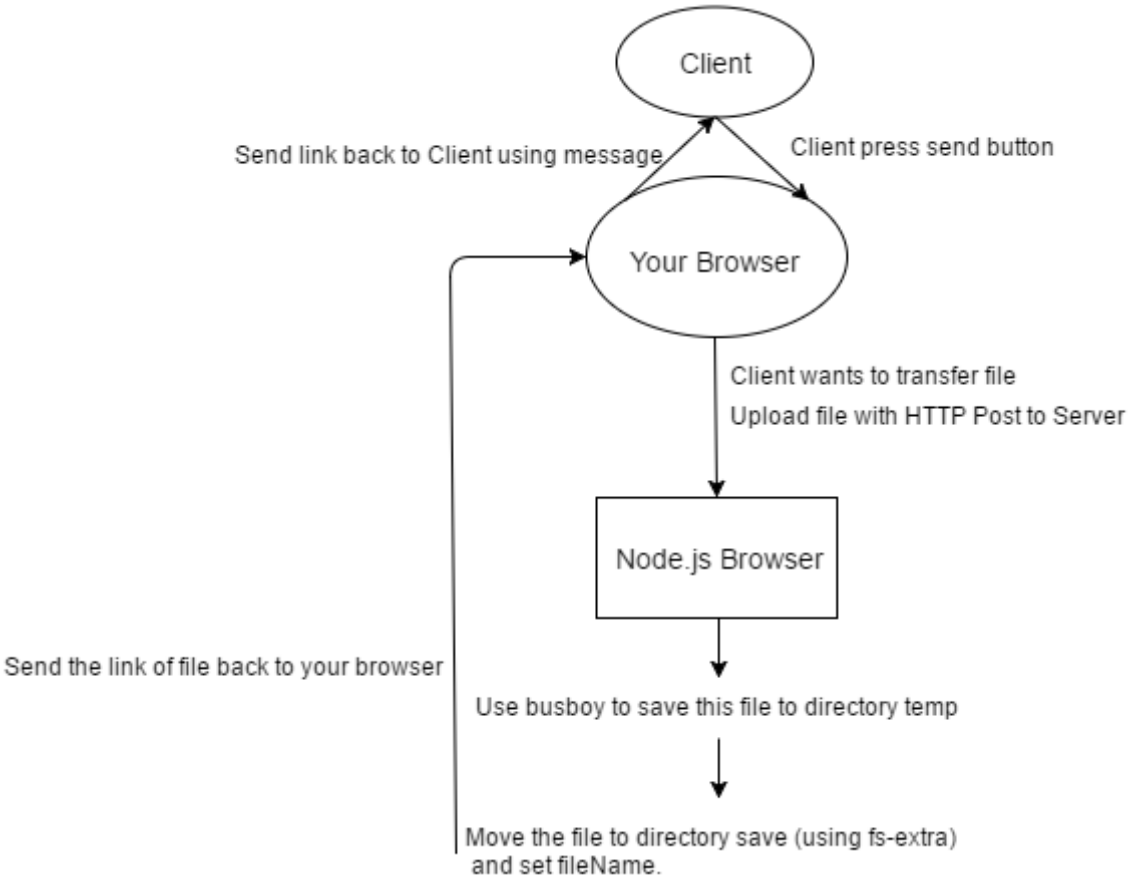
Client



Server

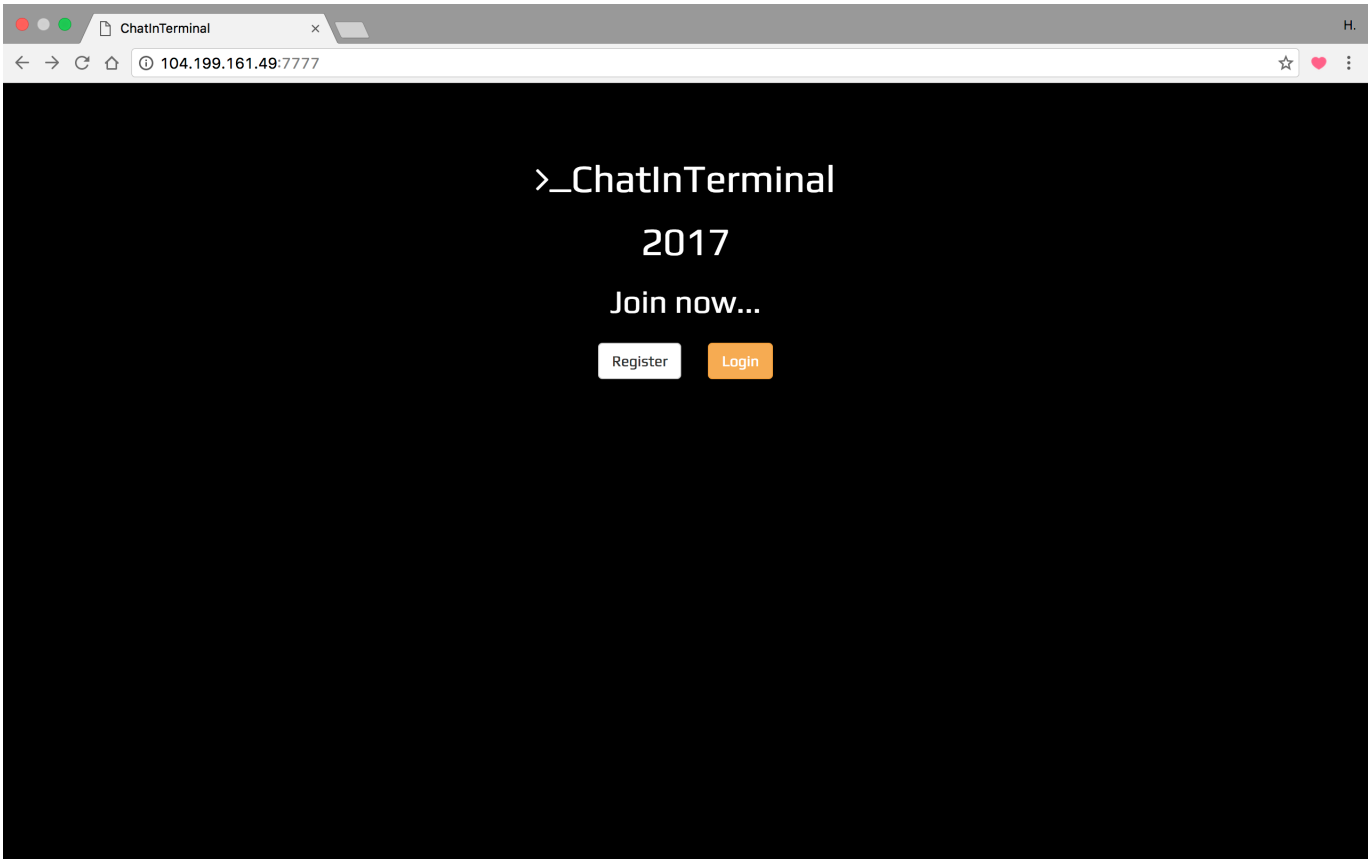


File transfer (White)

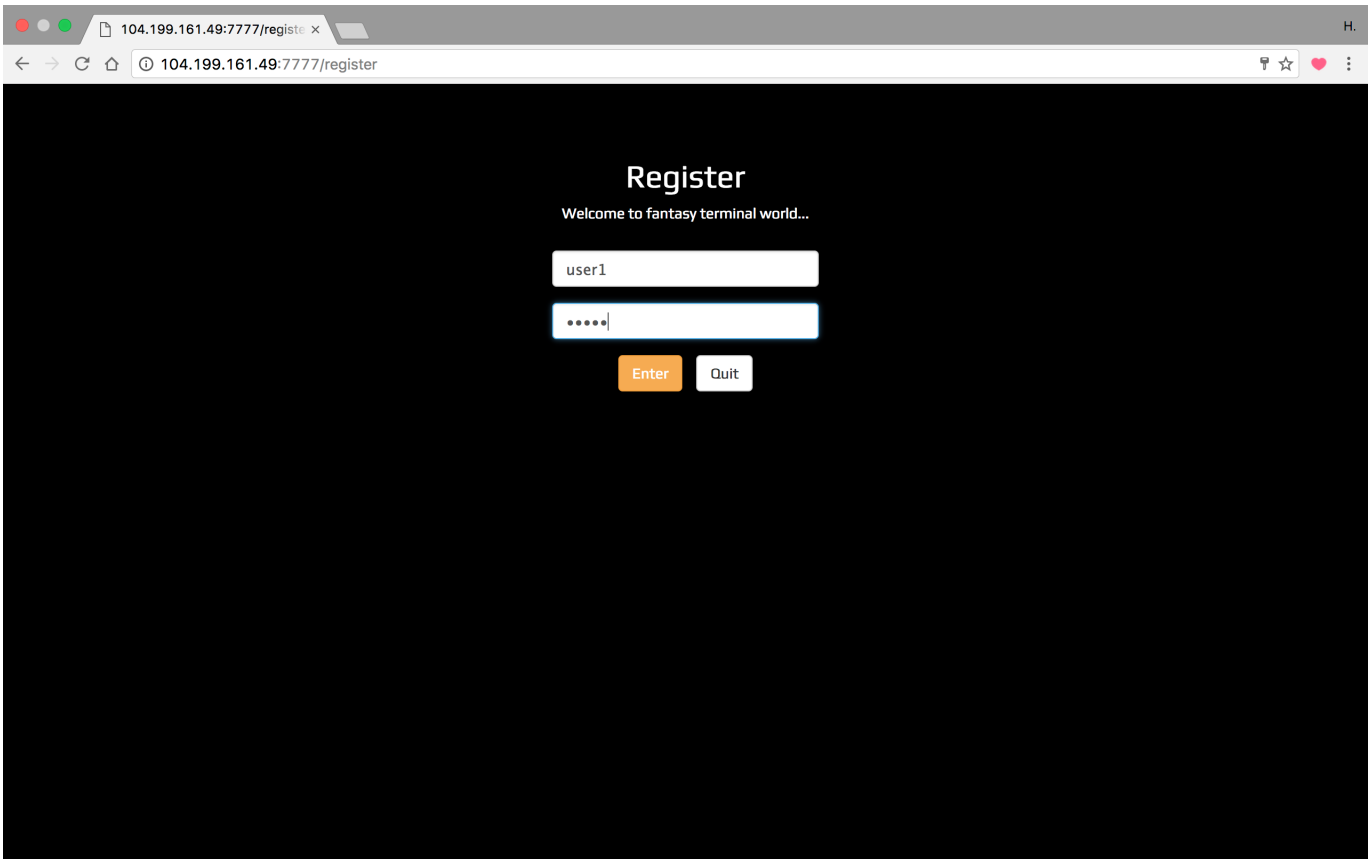


User & Operator Guide

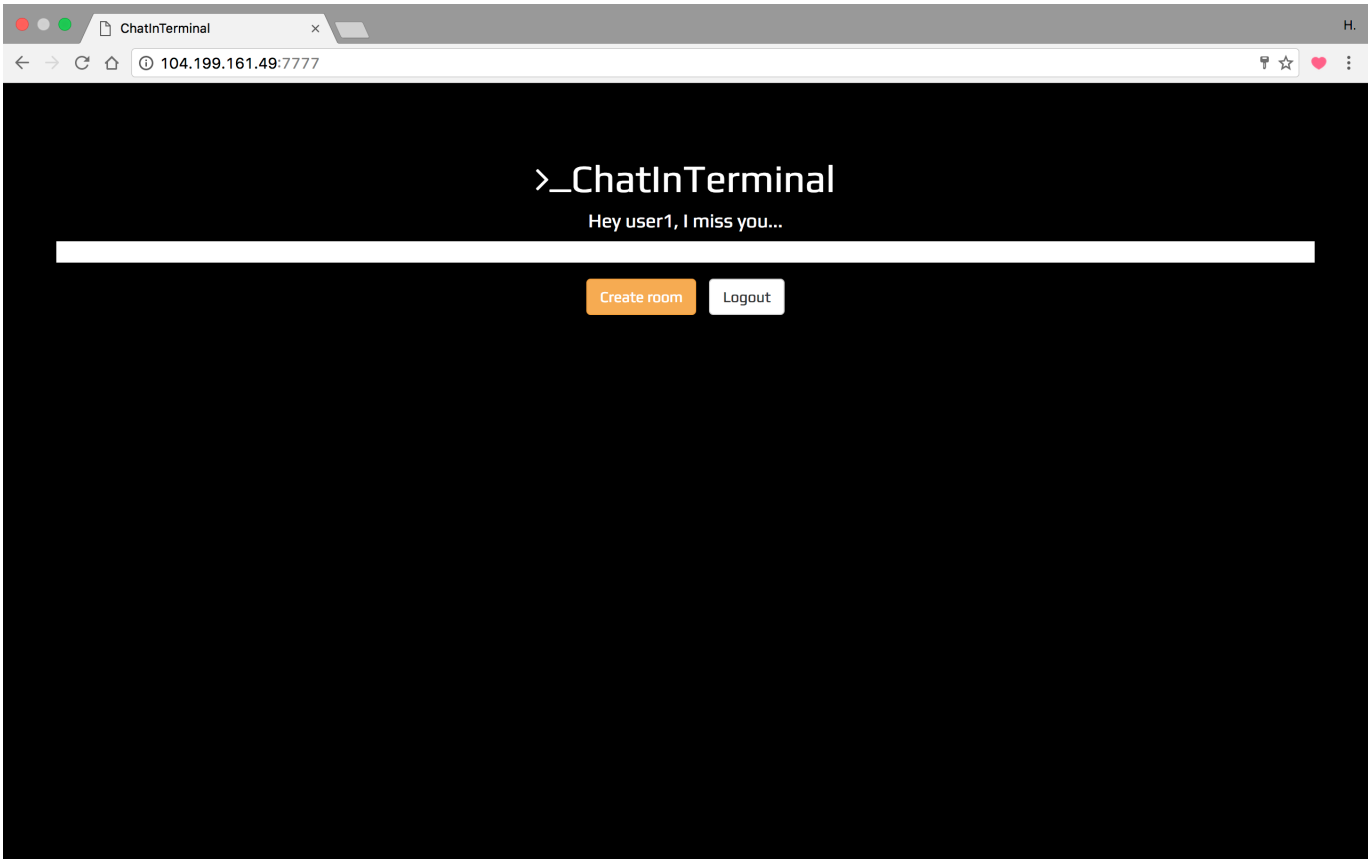
1. Click “Register” to create an account

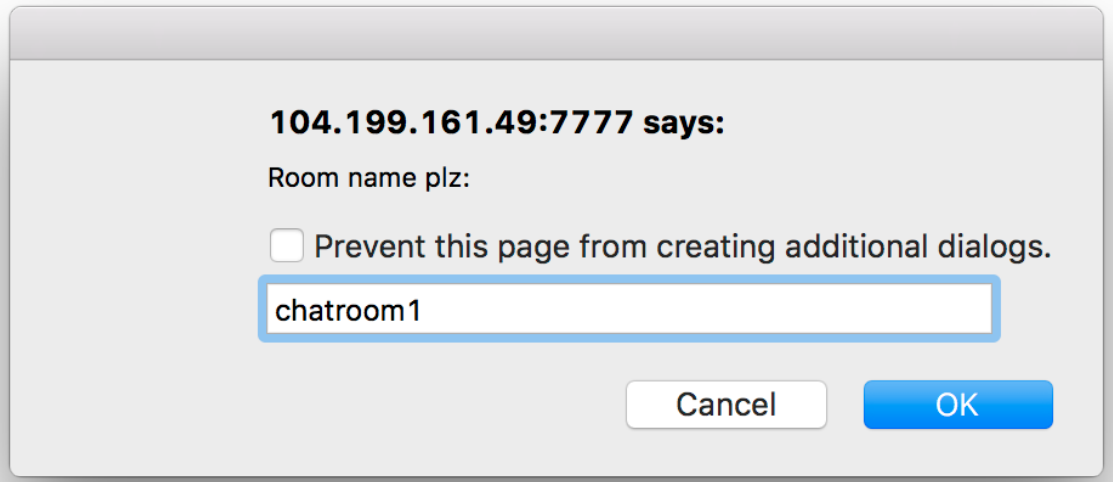


2. Input ID and passwaord

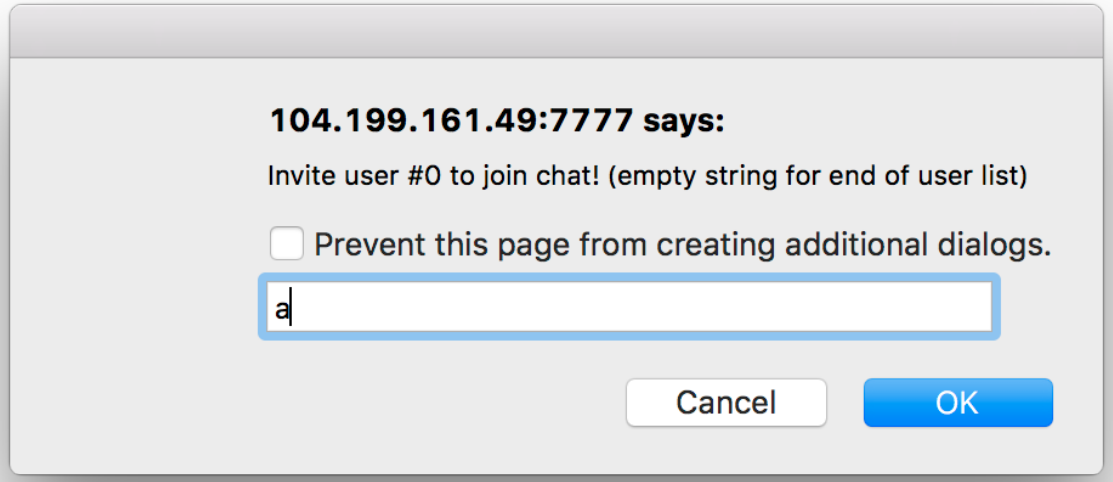


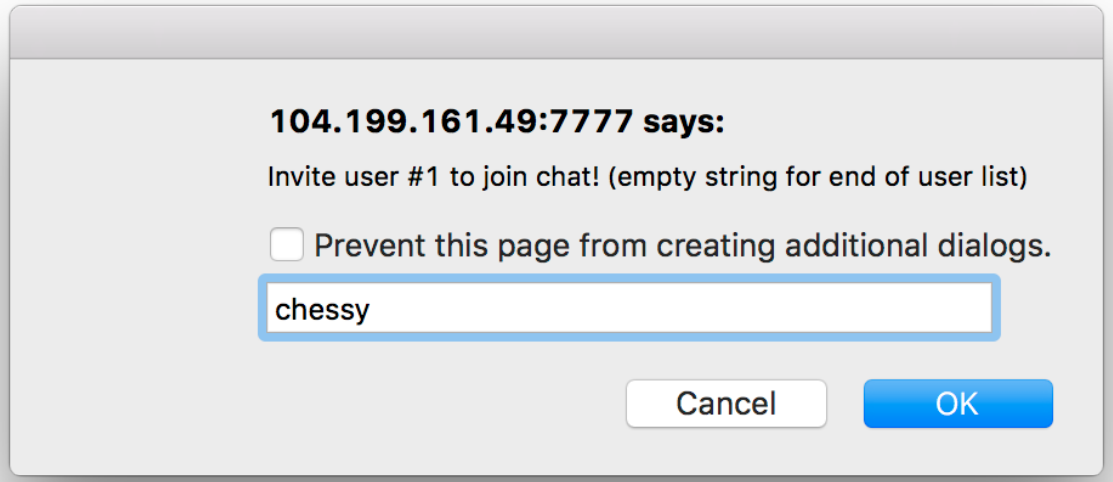
3. Click “Create room” to creat a chatroom





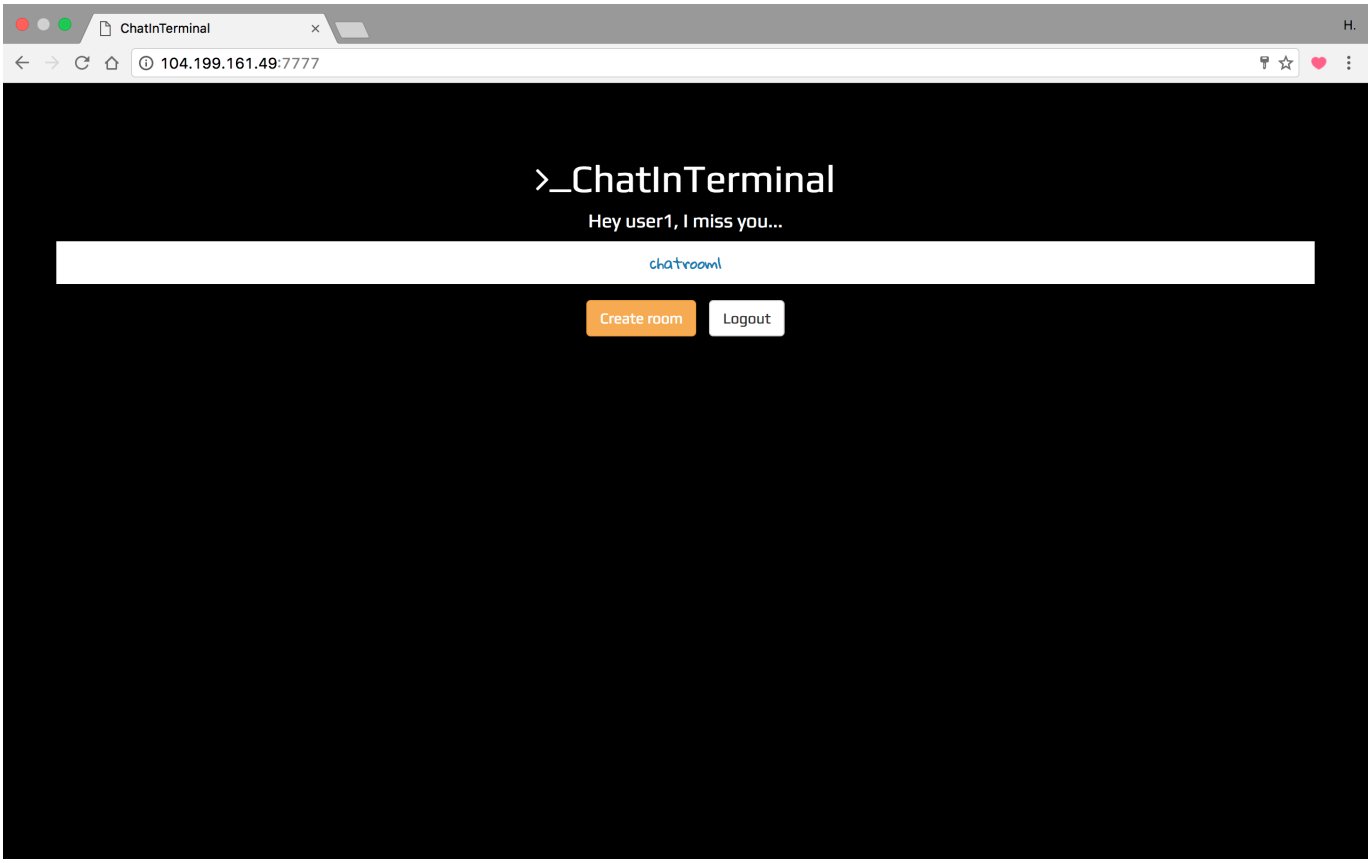
4. Add friend “a” and “chessy”



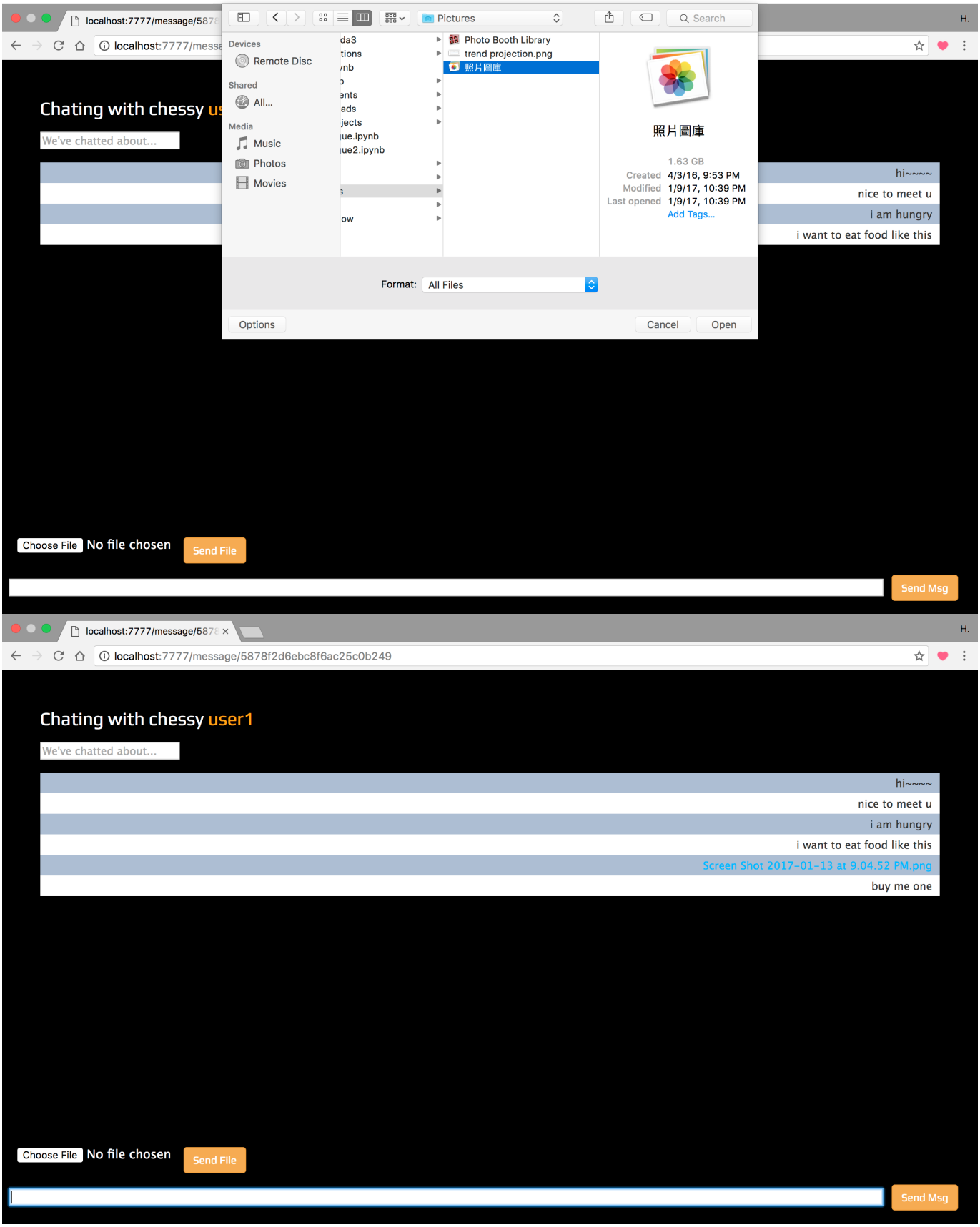


5. Press enter when finishing adding friend

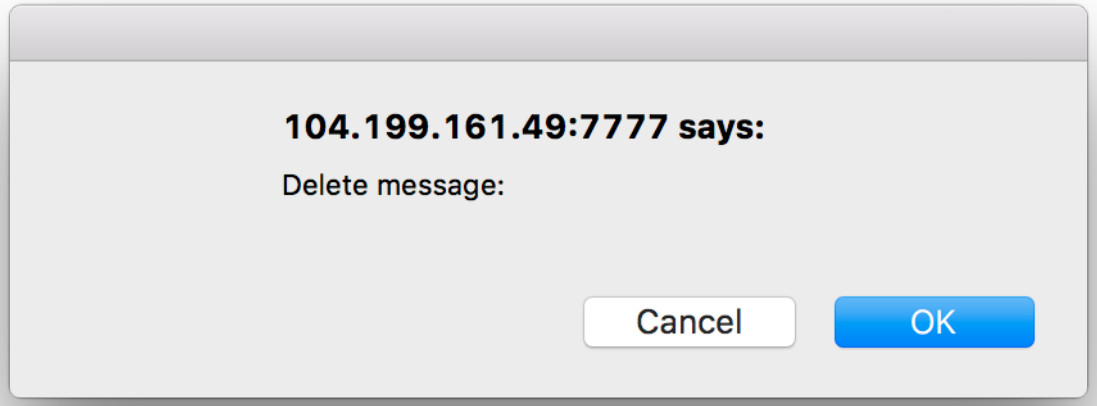
6. Click chatroom to start chating



7. Start chatting and sending file



8. Double click the message to delete it



Run server & clients

Server

Our server needs node (tested under v4.5.0), therefore we need `npm` & `node` installed. And we proposed the convenient way: nvm (https://github.com/creationix/nvm)

1. Install node & npm

```
curl -o- https://raw.githubusercontent.com/creationix/nvm/v0.33.0/install.sh | bas

nvm install node # To install newest version of node.
```

2. Install mongoDB
   Go to mongoDB website (https://docs.mongodb.com/manual/administration/install-community/) and download the version suitable for you OS.

3. Install modules needed

```
cd [project directory root/src]
npm install
```

4. All set! Let's run server

```
node app.js
```

Then the server is running and listening to port 7777.

Client

Open your browser and navigate to `IP:7777` , where IP is whatever your machine has.

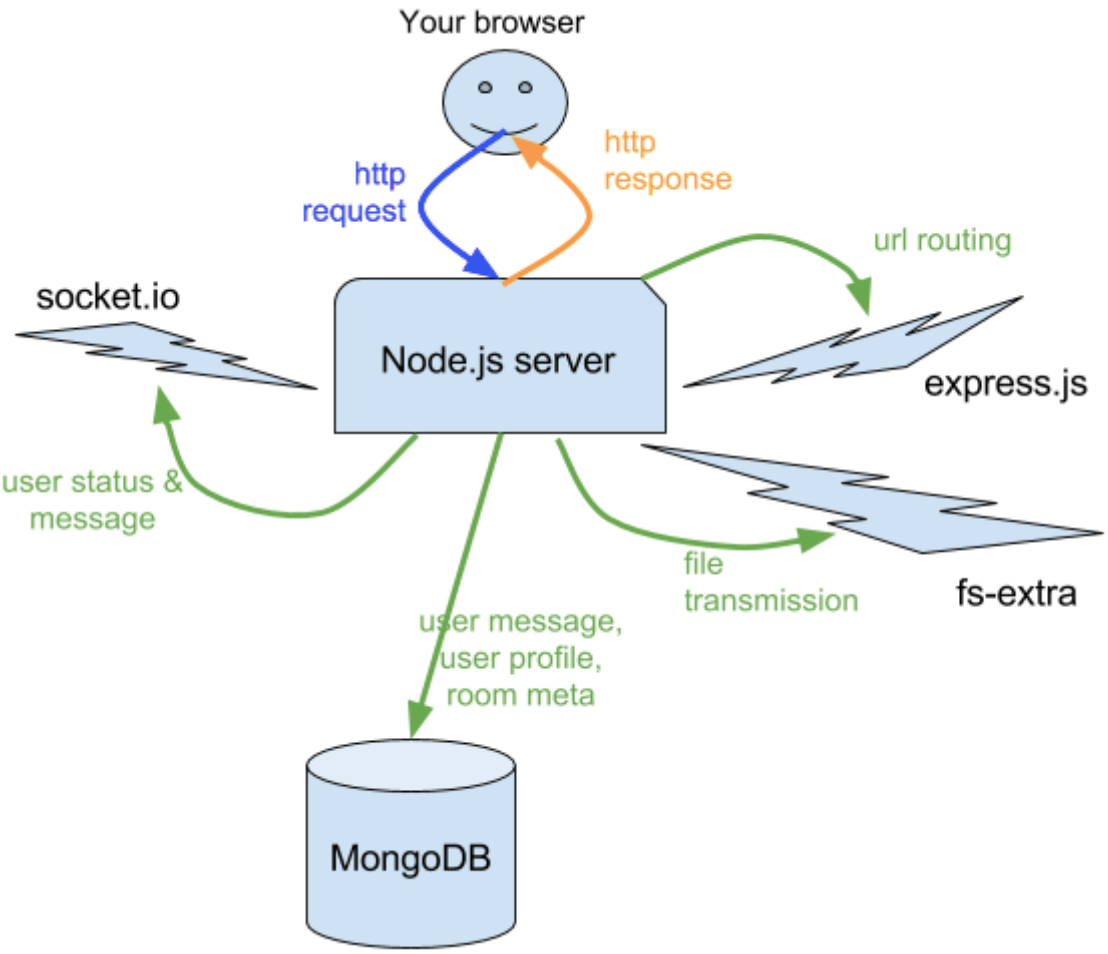
System & Program Design

Language: Javascript

Tool used

1. Node.js
2. Socket.io (http://Socket.io)
3. JQuery
4. MongoDB
5. Express.js
6. Fs-extra

System design



Bonus

1. Message can be deleted by sender
    - The security check is provided (must be sender)
    - How?
      a. Double click on the message
      b. click alert window to confirm
2. On/Offline status
    - The status of users in given chatroom is provided.
    - Automatically update if someone leaves the website and room.
3. Message search
    - Messages in chatroom can be searched
    - How?
      a. Type query in search input box.
      b. Press ‘Enter’ to submit.
      c. And you’ll see the query result showned.
4. Password encryption
    - Password is encrypted in database
5. Auto reconnect
    - When you loss connection and later reconnected, as long as you’re still in the page of chatroom, you’ll be automatically reconnected.
6. Multiple clients in room