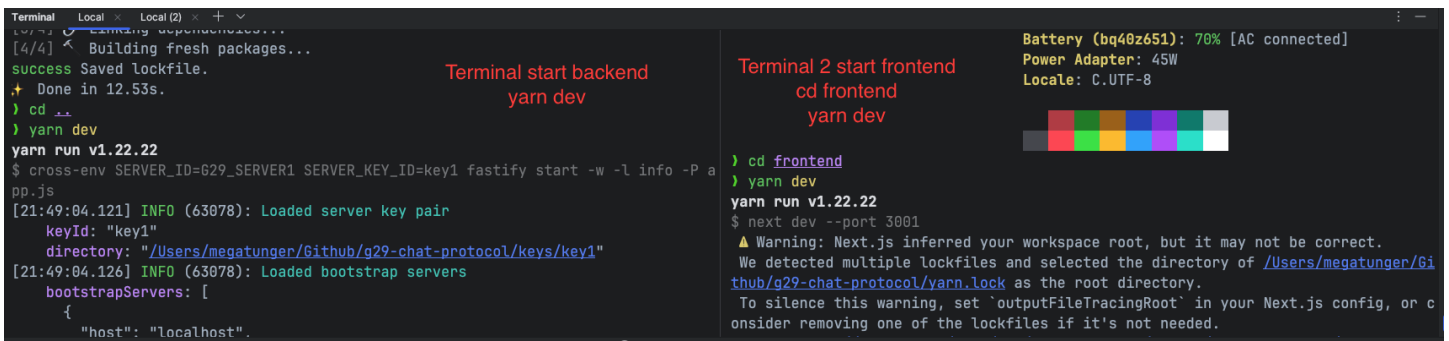


How To Test Group 29 Chat

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A. Setting up

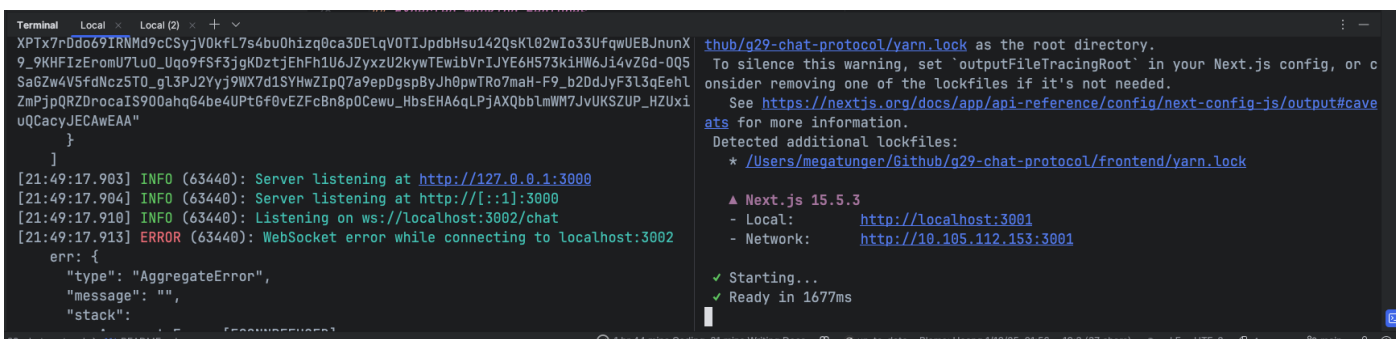
1. Make sure you follow the commands on README
2. You should start 2 terminal, one for backend, one for frontend



```
Terminal Local x Local (2) x +
[4/4] Building fresh packages...
success Saved lockfile.
+ Done in 12.53s.
) cd ..
) yarn dev
yarn run v1.22.22
$ cross-env SERVER_ID=G29_SERVER1 SERVER_KEY_ID=key1 fastify start -w -l info -P app.js
[21:49:04.121] INFO (63078): Loaded server key pair
keyId: "key1"
directory: "/Users/megatunger/Github/g29-chat-protocol/keys/key1"
[21:49:04.126] INFO (63078): Loaded bootstrap servers
bootstrapServers: [
  {
    "host": "localhost".

Terminal 2 start frontend
cd frontend
yarn dev
yarn run v1.22.22
$ next dev --port 3001
Warning: Next.js inferred your workspace root, but it may not be correct.
We detected multiple lockfiles and selected the directory of /Users/megatunger/Gi
thub/g29-chat-protocol/yarn.lock as the root directory.
To silence this warning, set 'outputFileTracingRoot' in your Next.js config, or c
onsider removing one of the lockfiles if it's not needed.
```

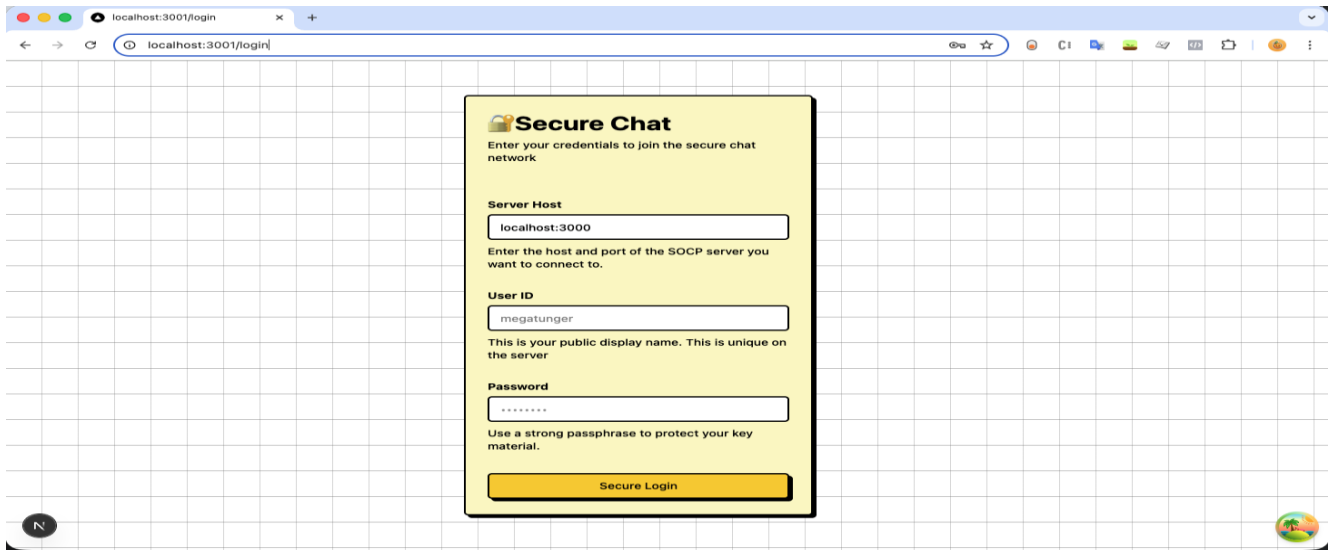
This will be the expectation (Server listening on...)



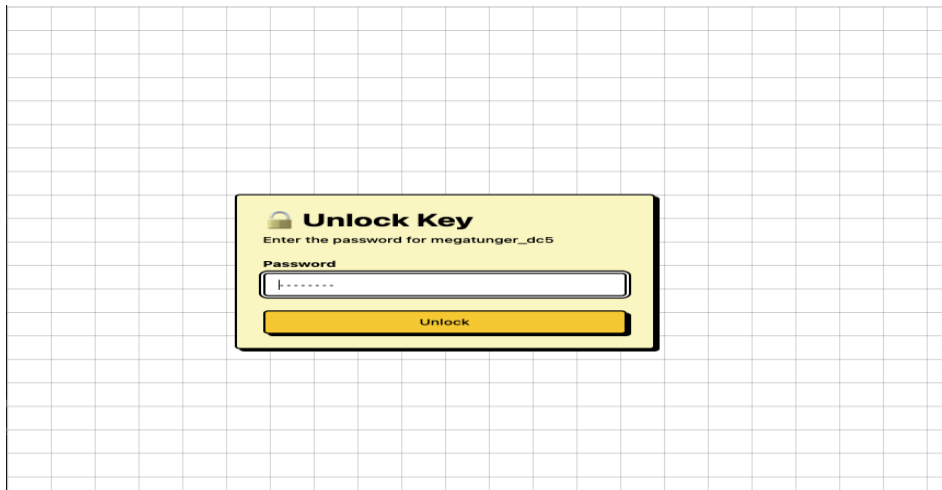
```
Terminal Local x Local (2) x +
XPTx7rDdG69IRNmd9ccSyjV0kfL7s4bu0hizq0ca3DElqV0TIJpdbHsu142QsKl02wIo33UfqWUEBjJnunX
9_9KHFizEromU7Lu0_Uqo9fSf3jgKDztjEhFh1U6JZyxzU2kywTEwibVrIJE6HS73kiHW6Ji4vZGd-QQS
Sa6Zw4V5fdNcz5T0_gL3PJ2Yvj9WX7d1SYHwZIpQ7a9epDgspByJh0pwTRo7mah-F9_b2DdJyF3L3qEehL
ZmPjpQRZDrocaIS900ahqG64be4UPt6f0vEZFcBn8p0Cewu_HbsEHA6qLPjAXQbbLmWM7JvUKSZUP_HZUxi
uQCacyJECawEAA"
}
}
[21:49:17.903] INFO (63440): Server listening at http://127.0.0.1:3000
[21:49:17.904] INFO (63440): Server listening at http://[::]:1:3000
[21:49:17.910] INFO (63440): Listening on ws://localhost:3002/chat
[21:49:17.913] ERROR (63440): WebSocket error while connecting to localhost:3002
err: {
  "type": "AggregateError",
  "message": "",
  "stack":
}

thub/g29-chat-protocol/yarn.lock as the root directory.
To silence this warning, set 'outputFileTracingRoot' in your Next.js config, or c
onsider removing one of the lockfiles if it's not needed.
See https://nextjs.org/docs/app/api-reference/config/next-config-js/output#cave
ats for more information.
Detected additional lockfiles:
* /Users/megatunger/Github/g29-chat-protocol/frontend/yarn.lock
^ Next.js 15.5.3
- Local: http://localhost:3001
- Network: http://10.105.112.153:3001
Starting...
Ready in 1677ms
```

3. On the browser, open the link localhost:3001. Enter user ID, password. Keep the server host is 3000 as it is, because we gonna test same server first

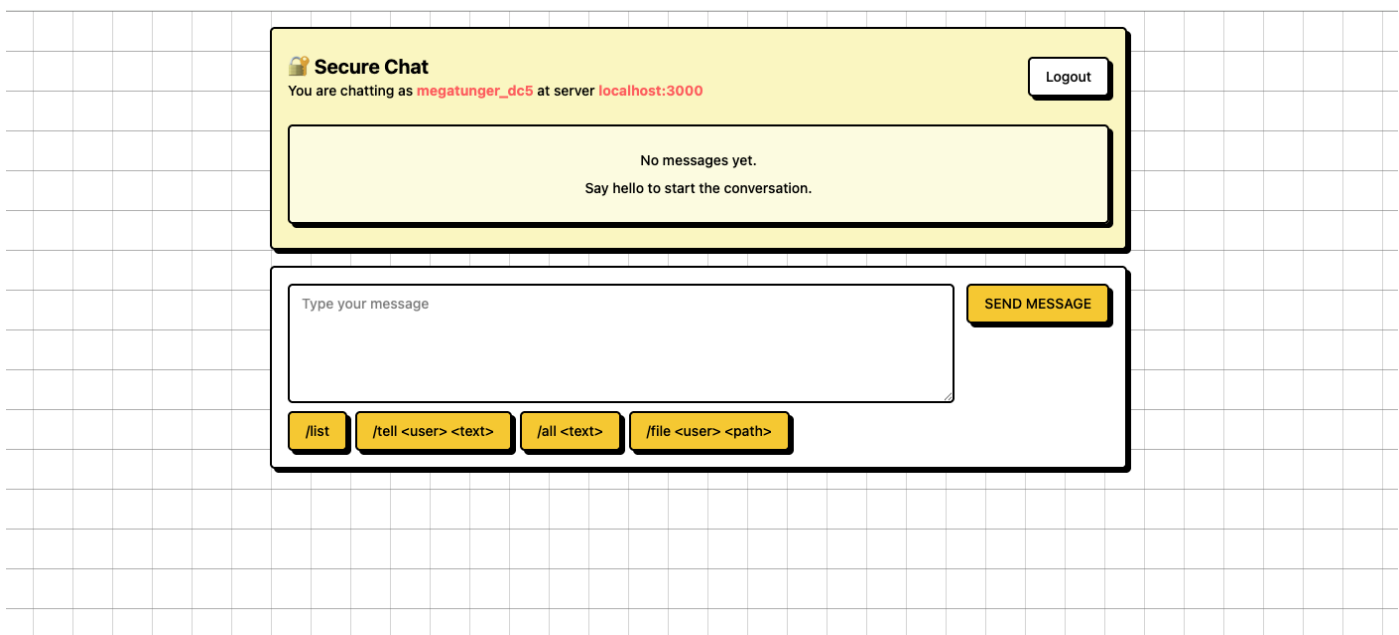


4. Enter the password again to start use the app



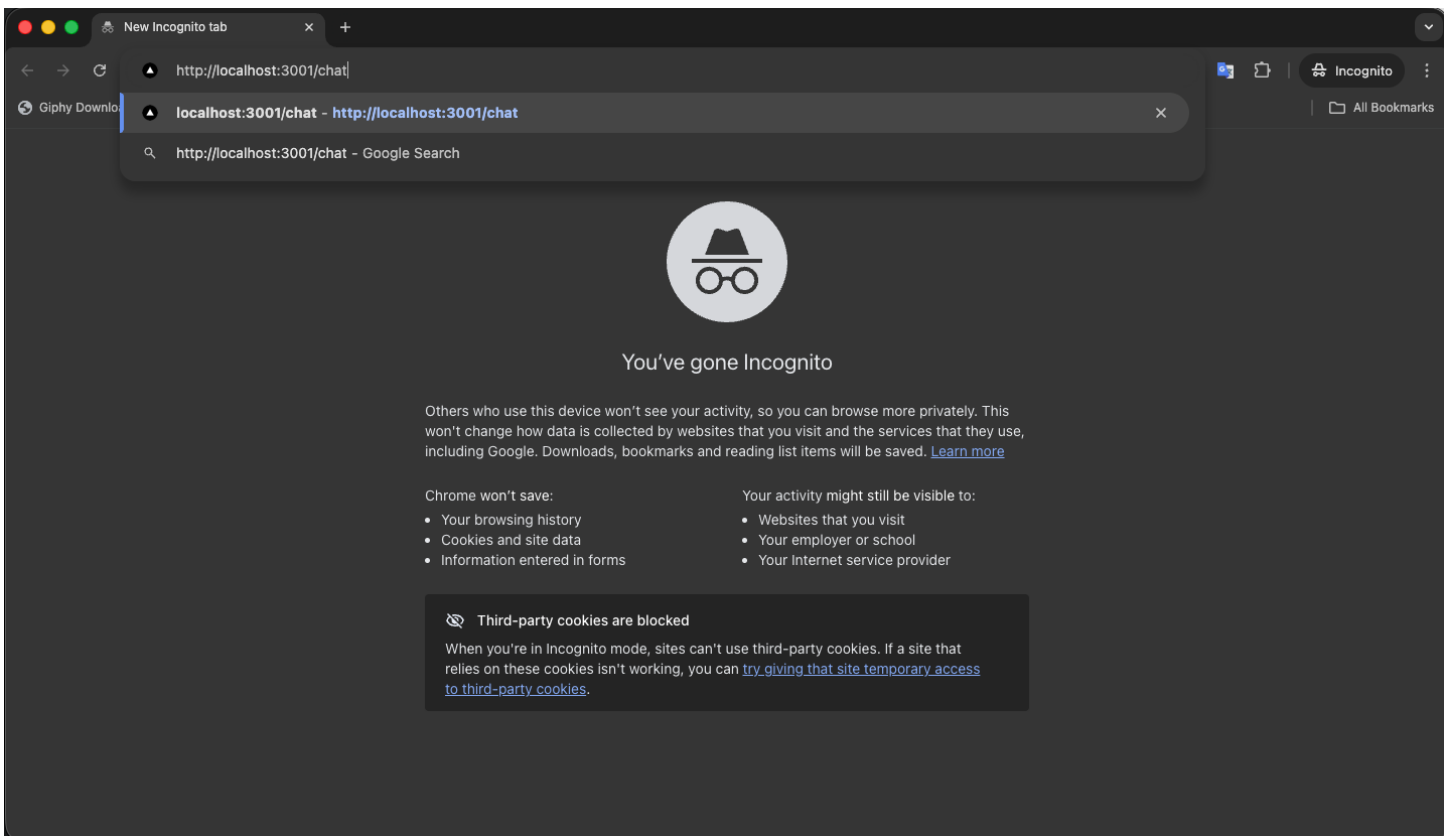
5. UI the app

You can click on the commands to start using

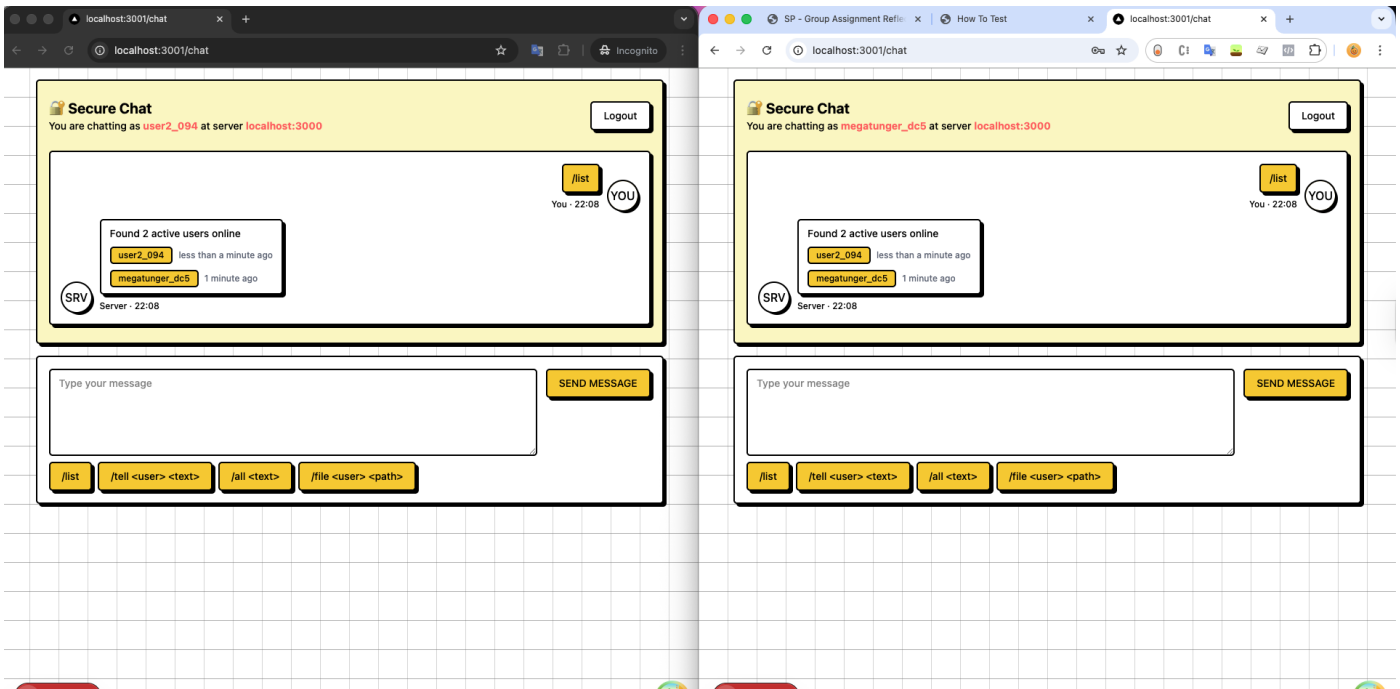


B. Test send direct messages between users on the same server

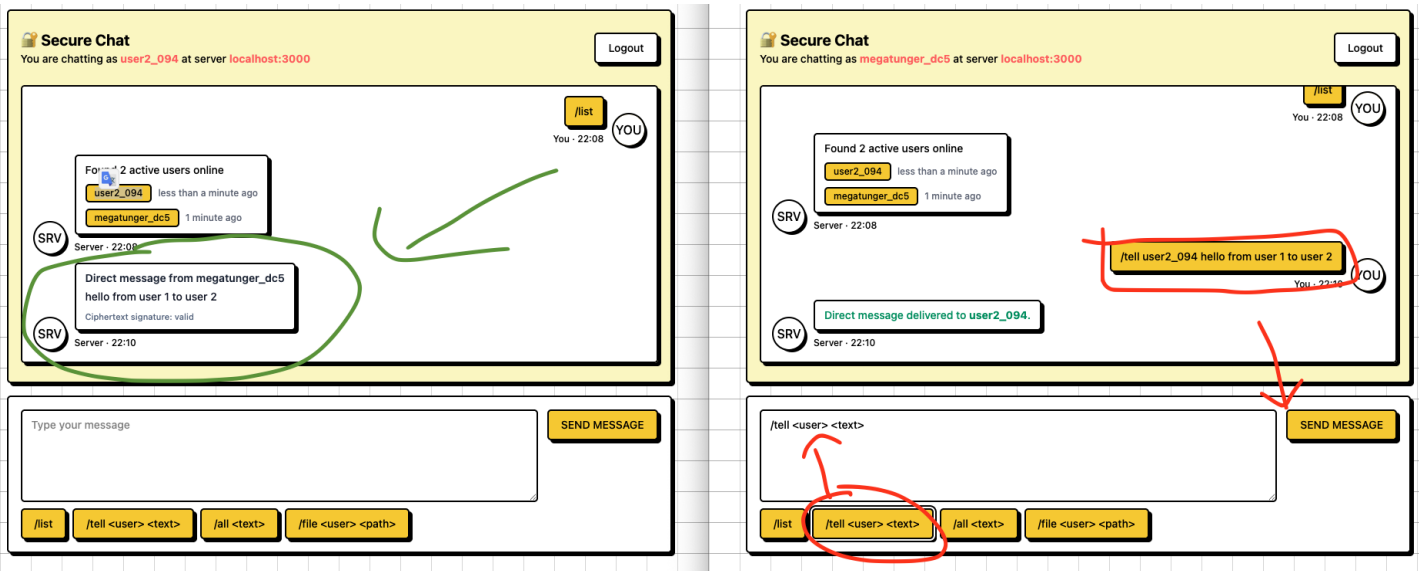
1. Keep the above window, open a new incognito tab and open the frontend again. **You should use different browser or using incognito mode because user credentials (private key, password is stored in local storage), so you won't messed up with the session**



2. Follow the same login steps above
3. After that, you will have 2 different users connect to same server. You can type /list to see 2 users is online



4. Let's try to send a message from 1 person to another

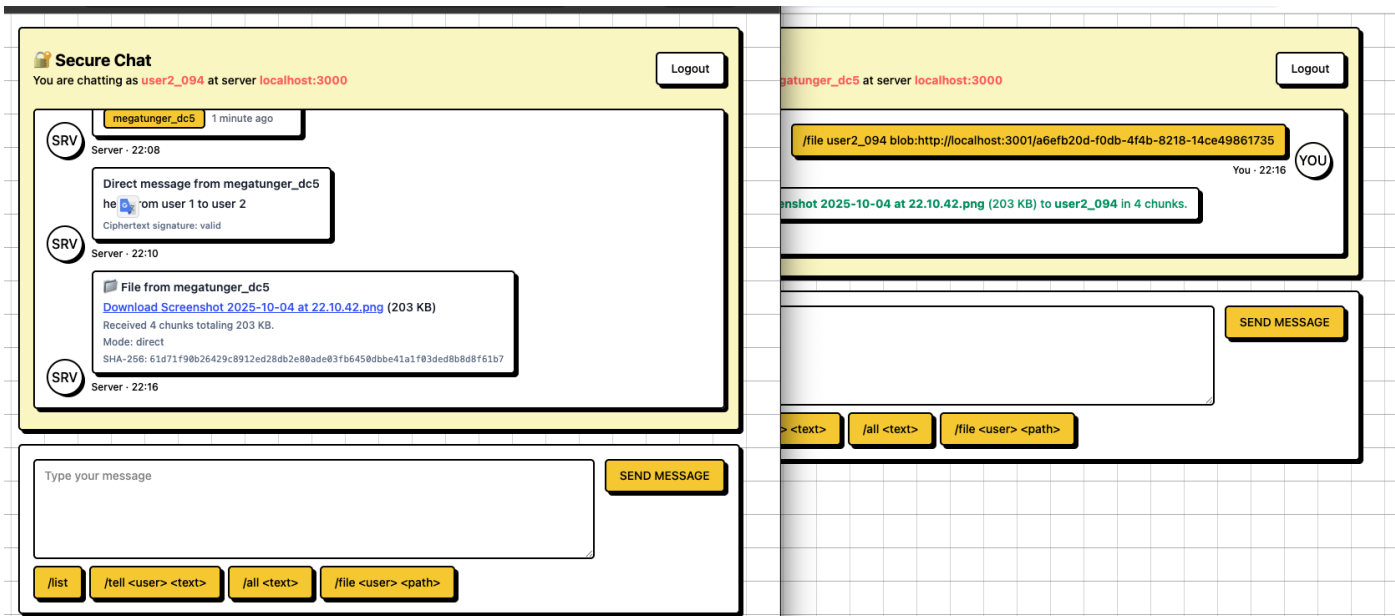


To send message, press on /tell to quickly fill in text box. Then grab the username you want to send to and the message, separated by a SPACE.

You should expect to receive the message, as the green annotation

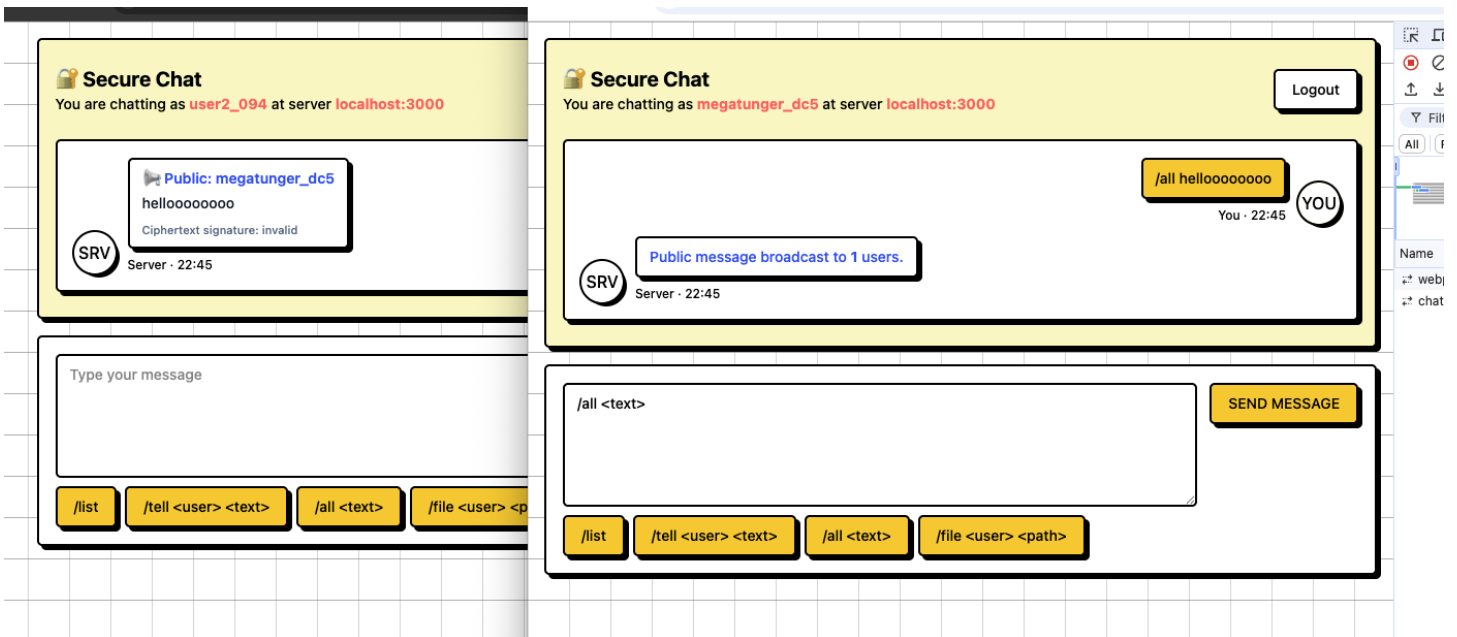
C. Sending a file

1. Press on /file button, you should be prompted to select a file



D. Public Channel messaging

Using the command /all

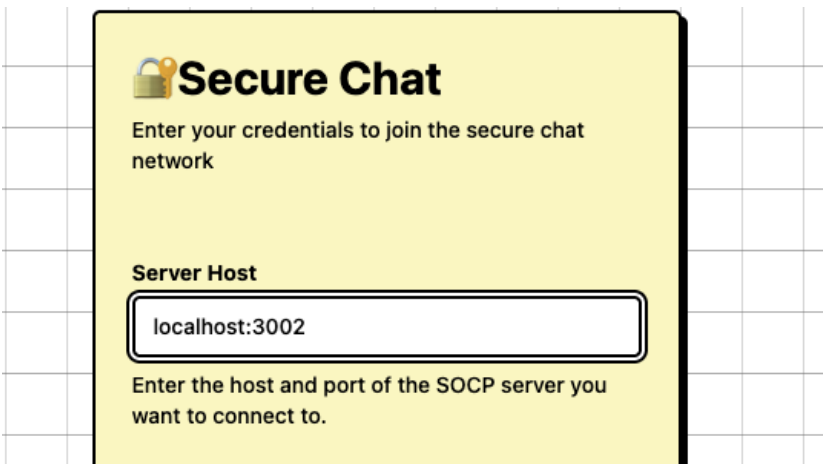


The public channel feature is limited implement to the protocol. It may miss some advanced part on upgrade channel keys, put acceptable secure.

E. Server-Server Tests

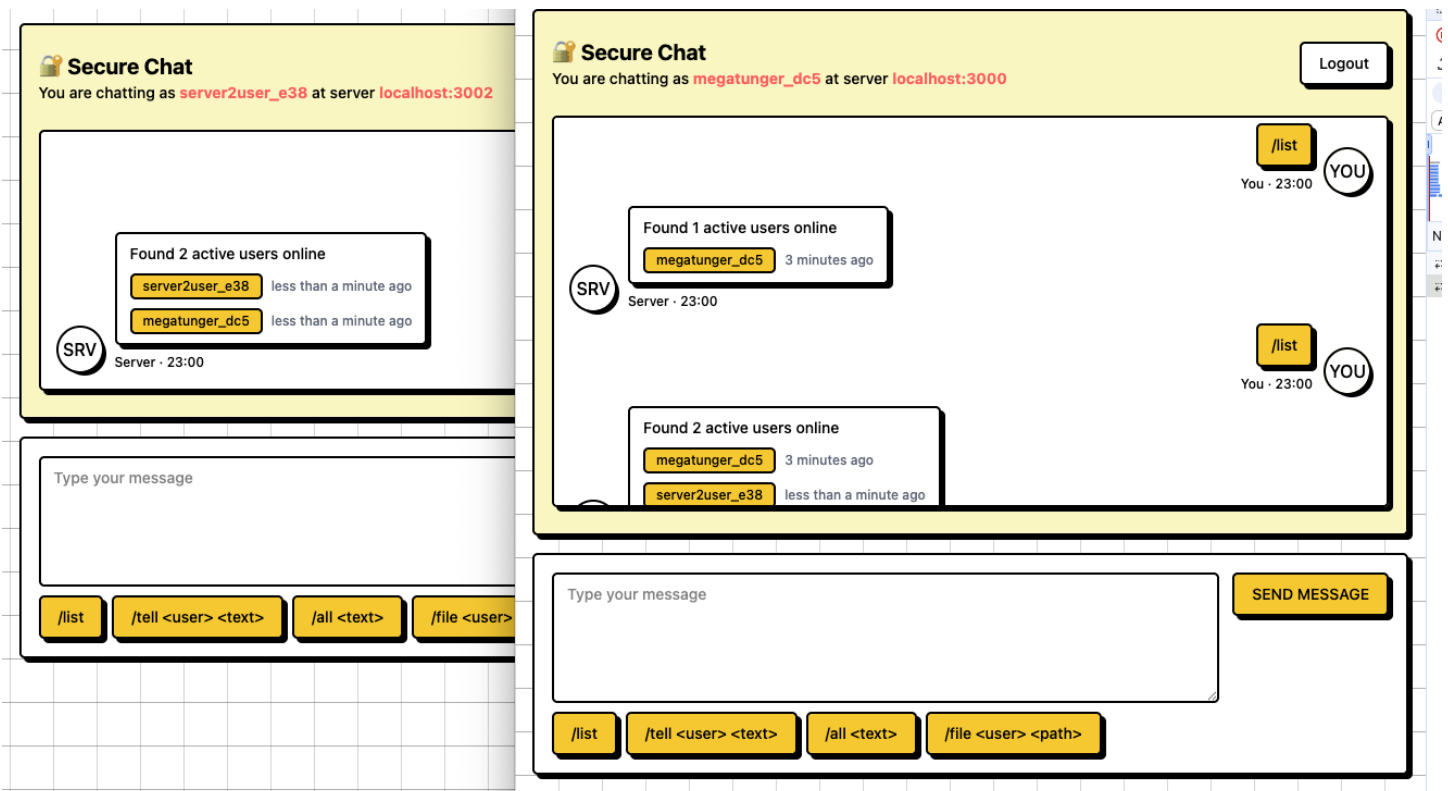
Due to bugs, the server-server is expected to run on 2 features: List down the users on both server and sending a direct message of users that on different servers. This interoperability was tested by running another instance of our code

1. To start 2nd server, you should **duplicate** the code folder, make sure
 - Clear database (yarn prisma migrate reset) on 2nd folder
 - Generate new private key (yarn generate:key). **Grab the public key**
 - **Replace the public key in bootstrap.yaml, below port:3002 on both folder (the 2nd server expect to run at localhost:3002)**
 - Restart the server 1, then start the server 2 (**yarn dev:server2**)
2. You can reuse the opened browser window, but changing server host need to **logout**.

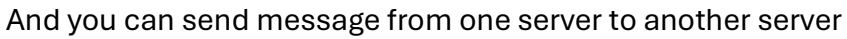


Make sure you put localhost:3002

3. Then you can expect, when /list you should see users from both server.



This is a known bug: you may need to /list 2 times to see correct users list



And you can send message from one server to another server