Final Project - cnMessage
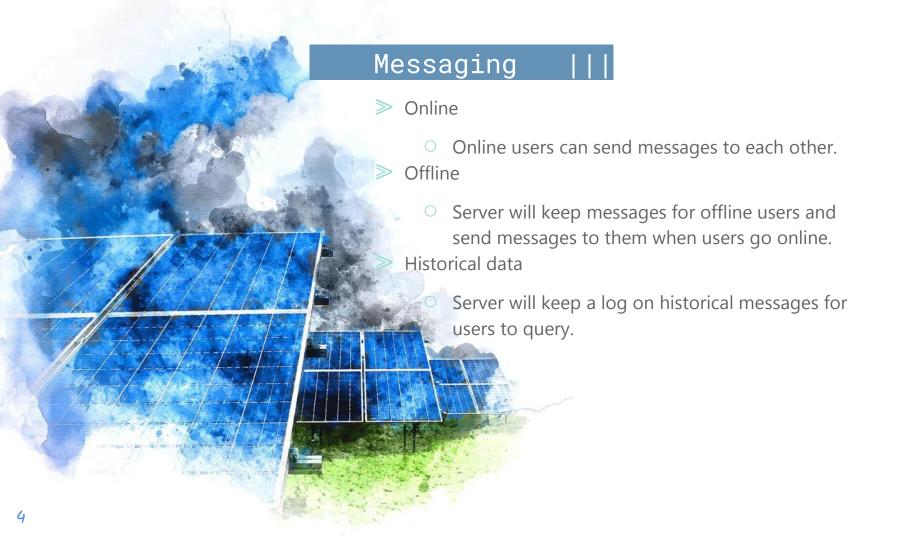
Computer Network 2019

Goal |||

≫ To build your own message system.

  ○ Design your own system architecture.

≫ You need to implement following functions:

  ○ Registration

  ○ Messaging

  ○ File transfer

  ○ User interface

≫ It's a team project.
  At most 3 members in a team.

Registration |||

≫ Signup

○ The username should be unique.

○ The password should be encrypted.
You can't store the password directly to the database.

≫ Sign in

○ By username and password

Messaging |||

≫ Online

○ Online users can send messages to each other.

≫ Offline

○ Server will keep messages for offline users and send messages to them when users go online.

≫ Historical data

○ Server will keep a log on historical messages for users to query.

4

File Transfer |||

≫ Online user can send/ receive files to/ from others.

○ Offline users can't send or receive files.

○ No need to store transferred files as users' historical data.

≫ More than one file can be transferred at the same time.

≫ File size

○ At most 10MB

■ https://reurl.cc/W4blLx (mp3)

■ https://reurl.cc/k5pD0b (jpg)

■ https://reurl.cc/24a586 (txt)

User Interface ⫾⫾⫾

≫ Be usable and simple.

○ You will not get extra credits but a smile from TA for a fancy UI. 🙂

≫ Both command line and graphical interface are acceptable.

Technical Requirements |||

≫ You may use any programming language.

≫ You can assume server and clients use public IP.

≫ Welcome to use libraries.

≫ You should provide a build script.

≫ If you have any other question not mentioned above, feel free to ask TAs.

Grading Policy |||

≫ 5 mins DEMO to get credits for the following functions :

- ○ Registration (10%)

- ○ Messaging (20%)

- ○ File Transfer (20%)

- ○ User Interface (10%)

- ○ Build Script (10%)

- ○ Bonus (at most 20%, each for 5%)

  - ■ Encryption、Auto reconnect、other interesting ideas…

○ Report (30%) **.pdf**

  ■ Please use the following template to write your report.

    ● https://reurl.cc/Qp28nq

  ■ Don't modify the order.

Demo : 2020.1.18(Sat.)

https://reurl.cc/rlkNZb **(group sheet, close at 12/3 23:59)**

Submission Deadline : 2020.1.19(Sun.) 23:59

Late submission will not be accepted.

You should upload your **.zip** file named [teamID_final] including a **folder**[teamID_final] that contains:

- src(folder)/<all source files>
- build.sh or makefile
- Report.pdf

to ceiba.

Any question?