CNline

2018 Final Project

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Intro

- Build your own messaging system.
- 2 members in a team

Requirement

- Registration
- Messaging
- File transfer
- User interface

Registration

- Signup
- Login with username and password
- Users are identified by their username

Messaging

- **Online** — online users can send messages to each other.

- **Offline** — server will store messages for offline users, and sends them when users go online.

- **Historical** — server keeps a log on sent and received messages for users to query.

- Messages must persist after server restarts, you may store them into files.

File Transfer

- ▶ Online user can send/receive files to/from others.

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

- ▶ Don't store transmitted files as users' historical Messages.

User Interface

- It has to be usable and simple.
- Both command line and graphical interface are acceptable.
- You will not get extra credits for a fancy UI.

Technical Requirements

- C/C++ programming language
- Design your system architecture and protocol
- Don't use out-of-box messaging libraries
- Provide a build script

Report

PDF file with following

▶ Protocol Specification

▶ User & Operator Guide

▶ Instructions on how to run server & clients

▶ System & Program Design

▶ Other things you want to say if any

Bonus

- ▶ Encryption
- ▶ Auto reconnect
- ▶ Add Friend
- ▶ Or other ideas
- ▶ Each bonus credits for 5%

Grading

5 mins demo to TA to get the credits for the following items:

Registration (15%)

Messaging (15%)

File transfer (15%)

User interface (10%)

Report (20%)

Build Script(5%)

Bonus (at most 25%)

Submission

Your source files and report should be stored in the following hierarchy, and then submit to CEIBA in ".tgz" or ".zip" compressed form.(ex: r06922045_final.zip)

src/<all source files>

Build.sh or makefile

Report.pdf

Deadline

2019 1/4 (Fri)