

System Programming MP3

Deadline: Nov 24 / 2015

Overview

IO Multiplexing on servers

File Download

Synchronize between clients (Bonus)

Sub-Assignment 1

IO Multiplexing on servers

1. Client C1 connected to the server.
2. Client C2 connected to the server.
3. C1, C2 can synchronize their files with the server respectively.
 - C1 and C2 are different users.

You are allowed to use `select()`, `poll()`, `epoll()`.

Sub-Assignment 2

File Download

1. User A connected to the server and sends some files to the server.
2. User A disconnected from the server and deleted his files.
3. User A connected the the server and received the files he send to the server in the previous session.

Bonus

Synchronize between clients

1. User A connected to the server with Client C1, Client C2.
2. C1 sended file F to the server.
3. C2 received file F to the server.

Bonus

Bouncing Problem

1. The user updates files on client C1.
2. `inotify` event on client C1 is triggered.
3. Client C1 updates to server
4. Server pushes changes to client C2
5. Client C2 updates file
6. `inotify` event on client C2 is triggered.

Gratings

1. Test 1-1: 2 clients from different users (4 points)
 2. Test 1-2: 5 clients from different users (2 points)
 3. Test 2-1: 1 client & download (4 points)
 4. Test 2-2: 2 clients from different users & download (2 points)
 5. Bonus: 2 clients from the same user (6 points)
- You can use anything in the suggested solution of MP2.
 - We will test your program with **regular files** and **directories** only.

TA Hours

1. Tuesday 13:00~14:00
2. Wednesday 17:00~18:00
3. Friday 13:00~14:00

No TA hour on **November 25th (Wednesday)**.