

Programming Assignment#1

A Simple Napster Style Peer to Peer File Sharing System

Evaluation
Jinyang Li
A20317851

Compute the average response time per client search request by measuring the response time seen by a client, such as 1000 sequential requests.

When not concurrently making requests:

During its life circle: Register 44 Times, using total 68ms, Average: 1ms
Search 32 Times, using total 51ms, Average: 1ms
Download 2 Times, using total 9ms, Average: 4ms
ListFiles 89 Times, using total 285ms, Average: 3ms

measure the response times when multiple clients are concurrently making requests to the indexing server

When concurrently making requests:

During its life circle: Register 49 Times, using total 37ms, Average: 0
Search 3 Times, using total 3ms, Average: 1
Download 3 Times, using total 17ms, Average: 5
ListFiles 141 Times, using total 3225ms, Average: 22

Conclusion

As I copied those data from result, we can see that when perform concurrently requesting, the ListFiles average cost time increase significantly.

To List All Available Files in a server, the AVG time is 0.028s, this is exclude from any internet delay problems since we are at local machine. So my conclusion is my system is running nicely when clients are making request solely. But when clients making request concurrently, the performance would drop significantly when client asks for list all available files.

Also, checkAlive can cost a lot of time if the checked peer is offline.