Assignment 6

Peer to Peer File Sharing Through Socket Programming

R.Sri Charan Reddy 14CS10037
G.Sai Bharath Chandra 14CS10020

Computer Networks Laboratory

FILES SUBMITTED

There are three files in total:

1) *FIS_multiserver.c*
2) *Peer_multiserver.c*
3) *Peer_multiclient.c*

CODE EXPLANATION

FIS_multiserver.c:

Select a server/machine and keep this file running over that machine , set up ip address of this machine as *#define SERVER_IP* ipaddr in *Peer_multiclient.c* .

Default port number which is used is taken as *12000*.

This FIS (file information server) can respond to multiple requests from various client.

Add more entries to the file table by adding file names to *file[num]* and corresponding machine

ipaddress where the respective files are stored in *ip[num]* in the code

General format of filetable------>>*(file[num],ip[num])* in the code.

PEER_multiserver.c :

Select a bunch of peer systems and keep this file running over those machines.

Default port number which is used is taken as *13000* in all machines.

This Peer server can respond to multiple requests from various peer clients.

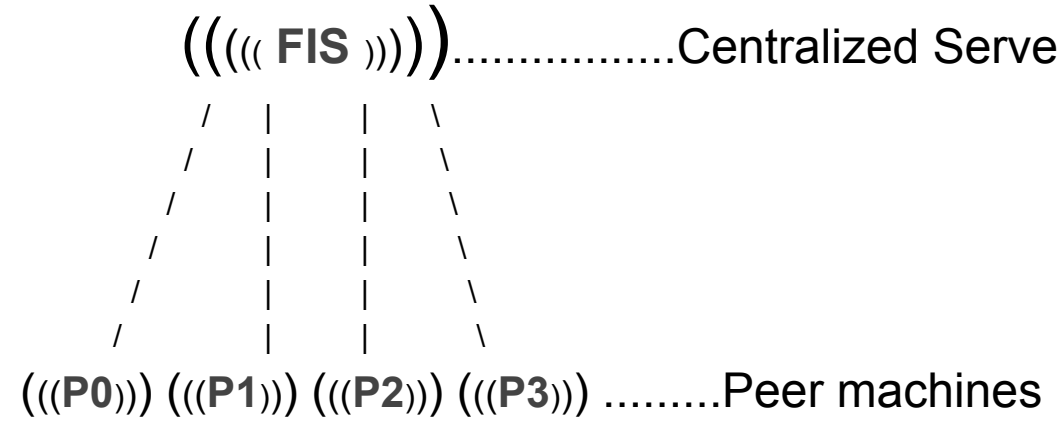
PEER_multiclient.c :

Keep this file stored in all machines along with the above c file.

This is to be run whenever you want to download some file from a peer system - server.

But as we don't know which server our desired file reside ,we pass a request to FIS which send back the server ip of peer machine of our desired file.

After getting the desired ip of peer machine we pass a request to the respective machine's ip address and get our file downloaded.



All communications between FIS and peers take place using *(UDP)* protocol using *(SOCK_DGRAM)*, whereas those between peers use (TCP) protocol using *(SOCK_STREAM)*.