College of Engineering,Trivandrum

Experiment 17

Network Programming Lab

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1 Concurrent File Server

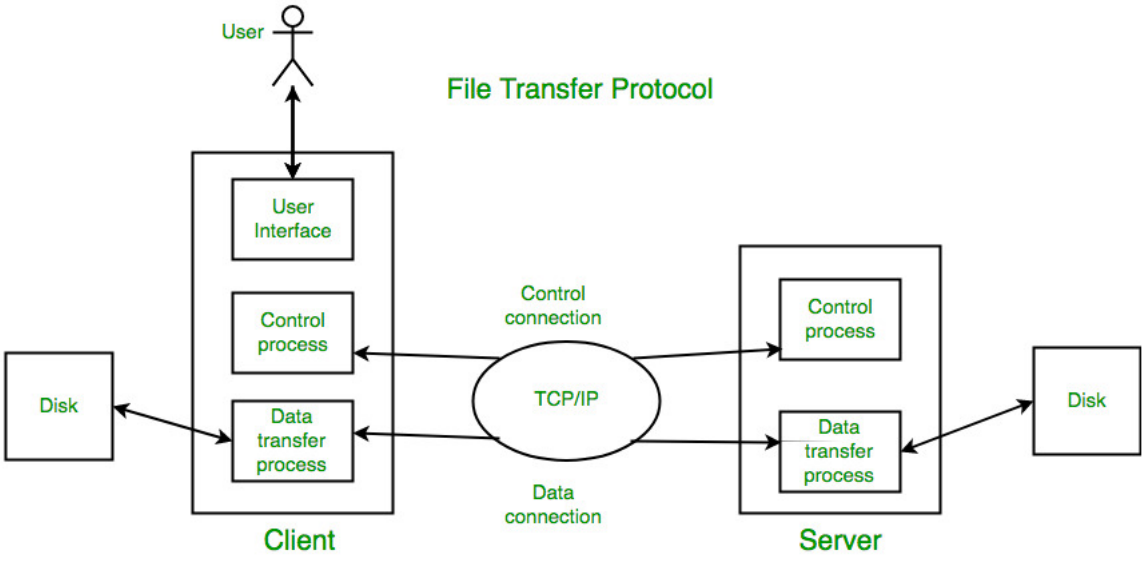
1.1 Aim

Implementing Concurrent server

1.2 Theory

1.2.1 FTP

The File Transfer Protocol (FTP) is a standard network protocol used for the transfer of computer files between a client and server on a computer network. FTP is built on a client-server model architecture and uses separate control and data connections between the client and the server.[1] FTP users may authenticate themselves with a clear-text sign-in protocol, normally in the form of a username and password, but can connect anonymously if the server is configured to allow it.



1.3 Program

1.3.1 File Server

```
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

port=8080

s.bind(('',port))

s.listen(5)

while True:
    c,addr=s.accept()
    filename=c.recv(1024)
    print "Finding file : "+filename+"....."
    print ('Got Connection from',addr)
    try:
        file = open(filename,'rb')
        c.send('Found')
        print "File Found"
        data = file.read(1024)
        print "Reading File...."
        print "Sending..."
        while(data):
            c.send(data)
            data = file.read(1024)
        file.close()
        print "File closed"
        break
    except:
        c.send('No File')
        print "No file found"
        break
c.close()
```

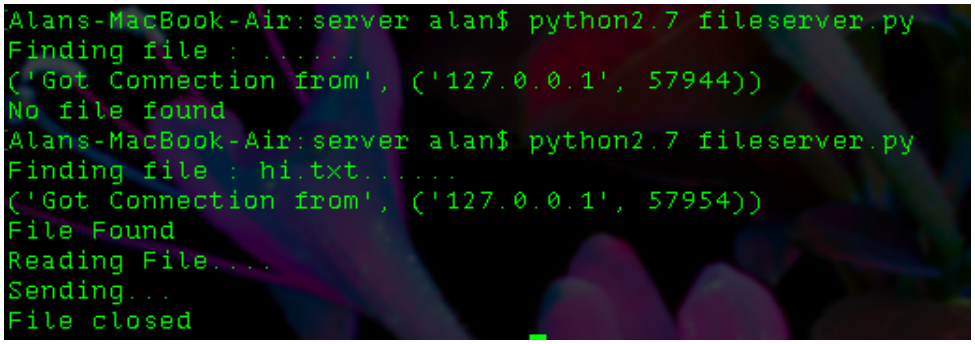
1.3.2 File Client

```
import socket
import sys

s= socket.socket(socket.AF_INET, socket.SOCK_STREAM)
```

```
port = 8080
s.connect(('localhost',port))
s.send(sys.argv[1])
response = s.recv(1024)
print response
if(response =='Found'):
    file = open('recieve_'+ sys.argv[1] ,'wb')
    print "Recieving File....."
    while True:
        data = s.recv(1024)
        if not data:
            break
        file.write(data)
    file.close()
    print "File written at recieve_"+sys.argv[1]
else:
    print "File Not Found"

s.close()
```

2 Output

2.1 File Server



2.2 File Client

3 Result

File server and client was implemented using python and the required output was obtained.