Computer Networks Assignment 2
Net Id – sst390

Socket Programming Assignment 1: Web Server

Below is the sample code of Socket Programming using the skeleton code provided.

```
#import socket module
from socket import *
serverSocket = socket(AF_INET, SOCK_STREAM)

#prepare a socket
serverSocket.bind(('0.0.0.0', 1330))
serverSocket.listen(1)

while True:
#Establish the connection
        print ('Ready to serve...')
        connectionSocket, addr = serverSocket.accept()
        try:
                print ("Received connection from : " + str(addr[0]))
                message = connectionSocket.recv(1024)        #####
                filename = message.split()[1]
                print (filename[1:])
                f = open(filename[1:])
                outputdata = f.read()
                f.close()

#Send one HTTP header line into socket
                connectionSocket.send(b'HTTP/1.1 200 OK\r\n\r\n')

#Send the content of the requested file to the client
                for i in range(0, len(outputdata)):
                        connectionSocket.send(outputdata[i].encode())

                connectionSocket.close()
        except IOError:
#Send response message for file not found

                connectionSocket.send(b'HTTP/1.0 404 Page Not Found\r\n\r\n')
                connectionSocket.send(b'File ' + filename[1:] + b' Not found!!')
                connectionSocket.close()
#Close client socket
                #connectionSocket.close()
serverSocket.close()
```
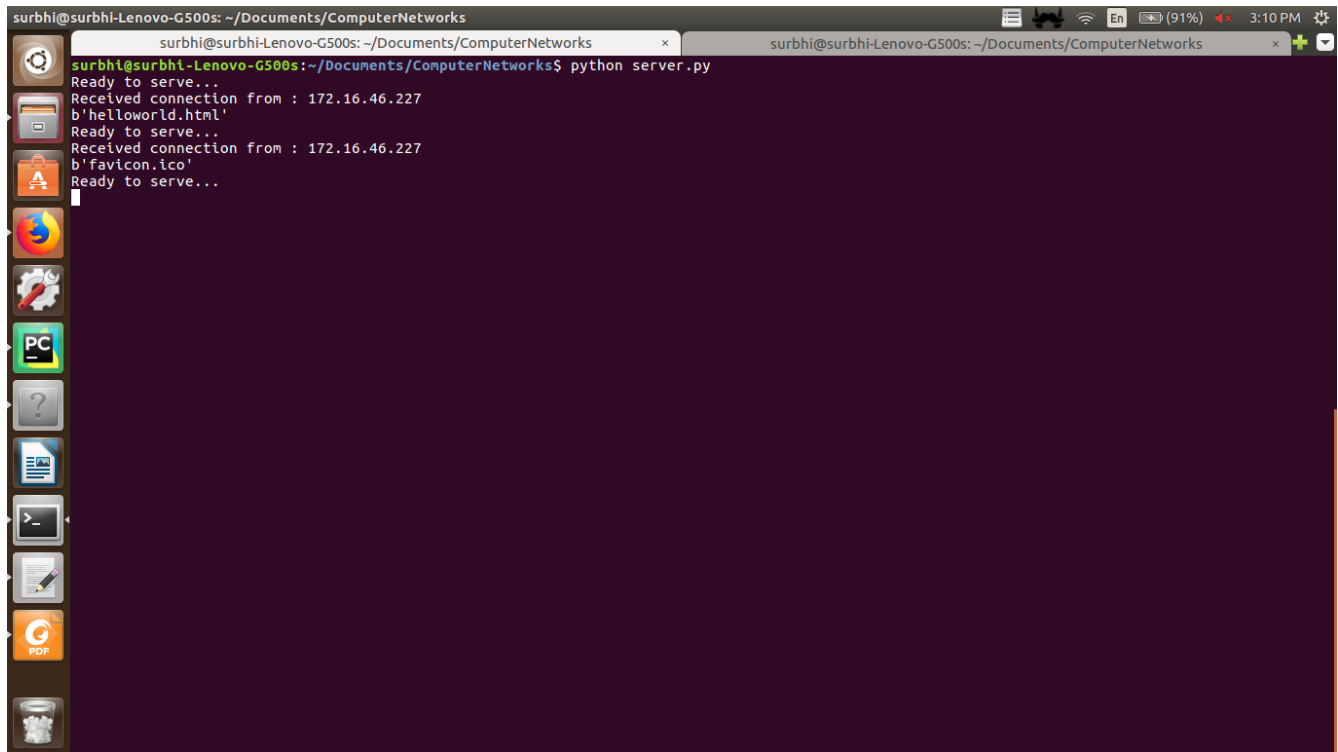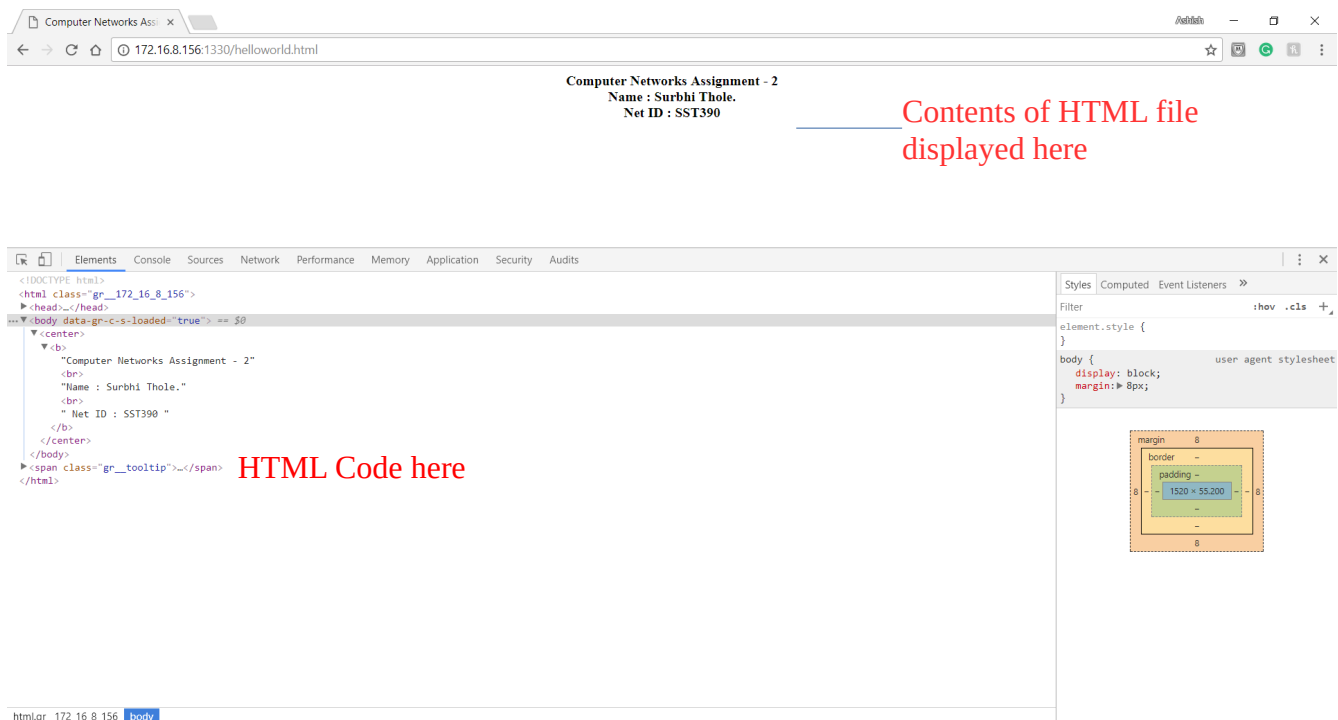
Output is as follows:

1) When the code is executed, the server waiting for client call:
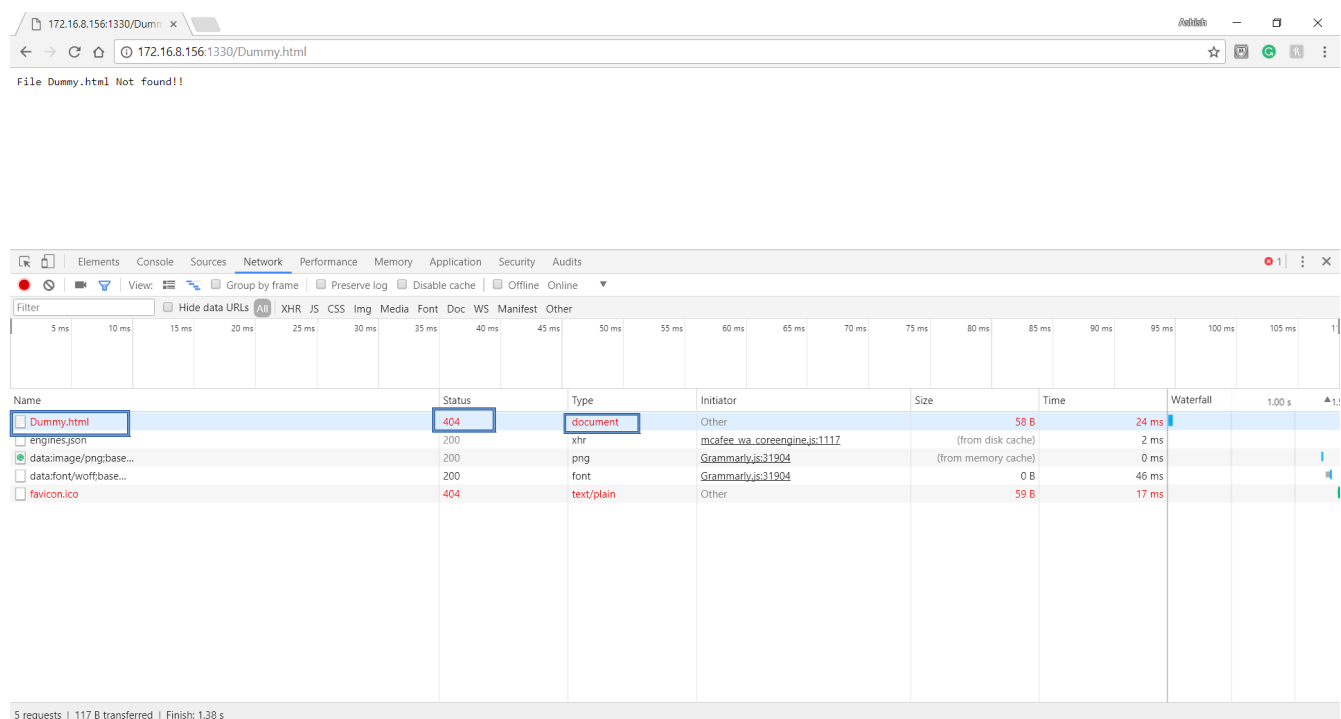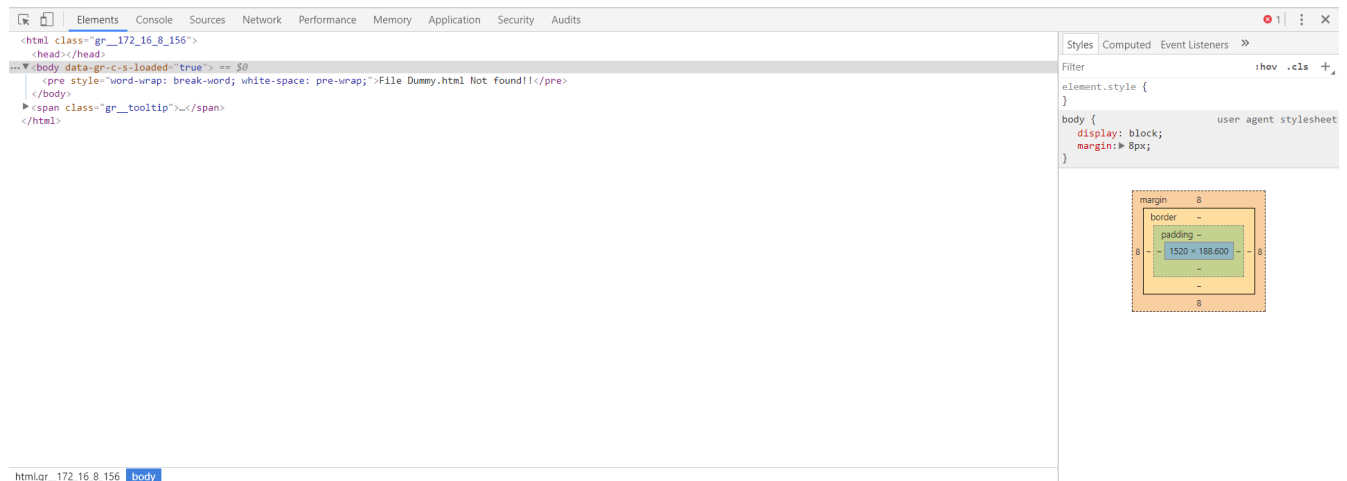
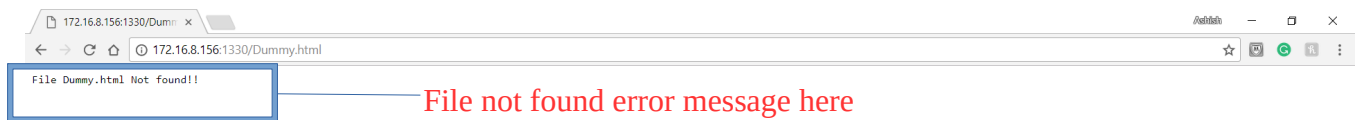

2) Client requesting for HTML file:

3) Below Image shows the "HTTP 200 OK" response and the file name that is being executed:
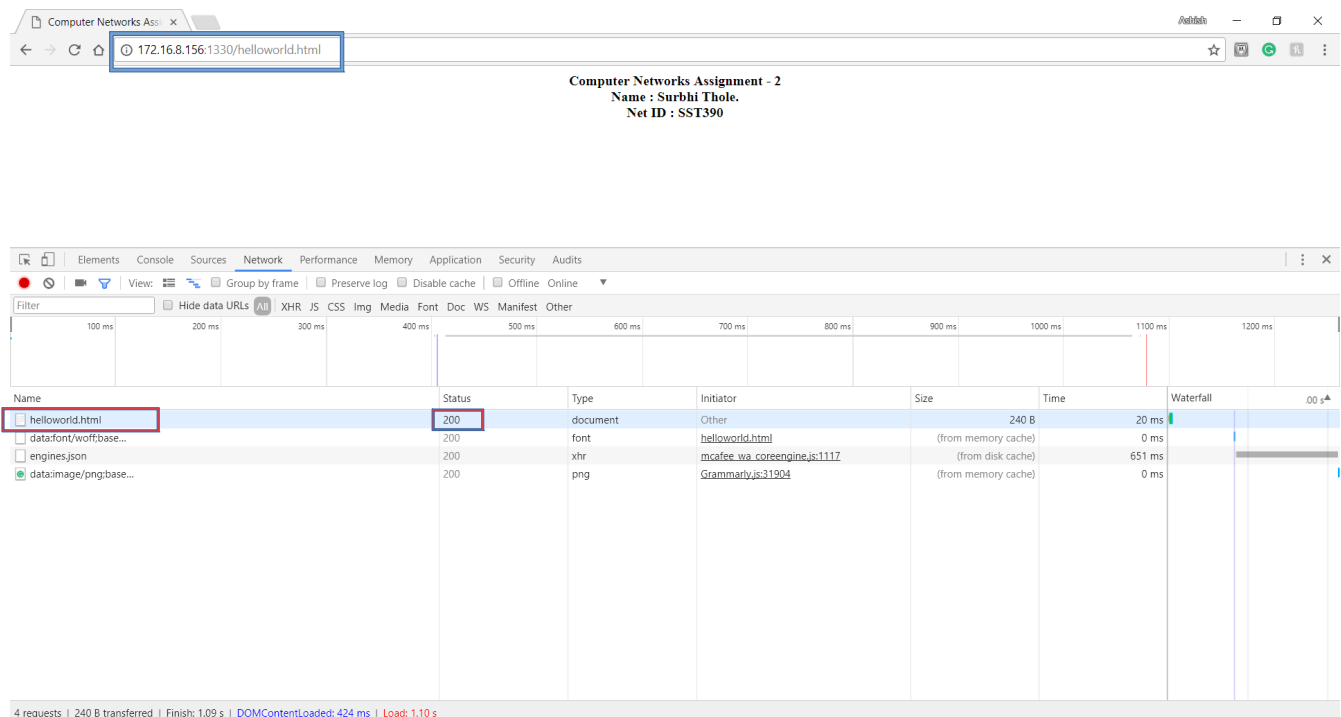
4) HTTP "404 Page not found error" Message:
- Consist of dummy filename which was requested by client.
- 404 Page Not found Error Message.

File not found error message here

5) IP address of the HOST from which the client call was made: