

## 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())

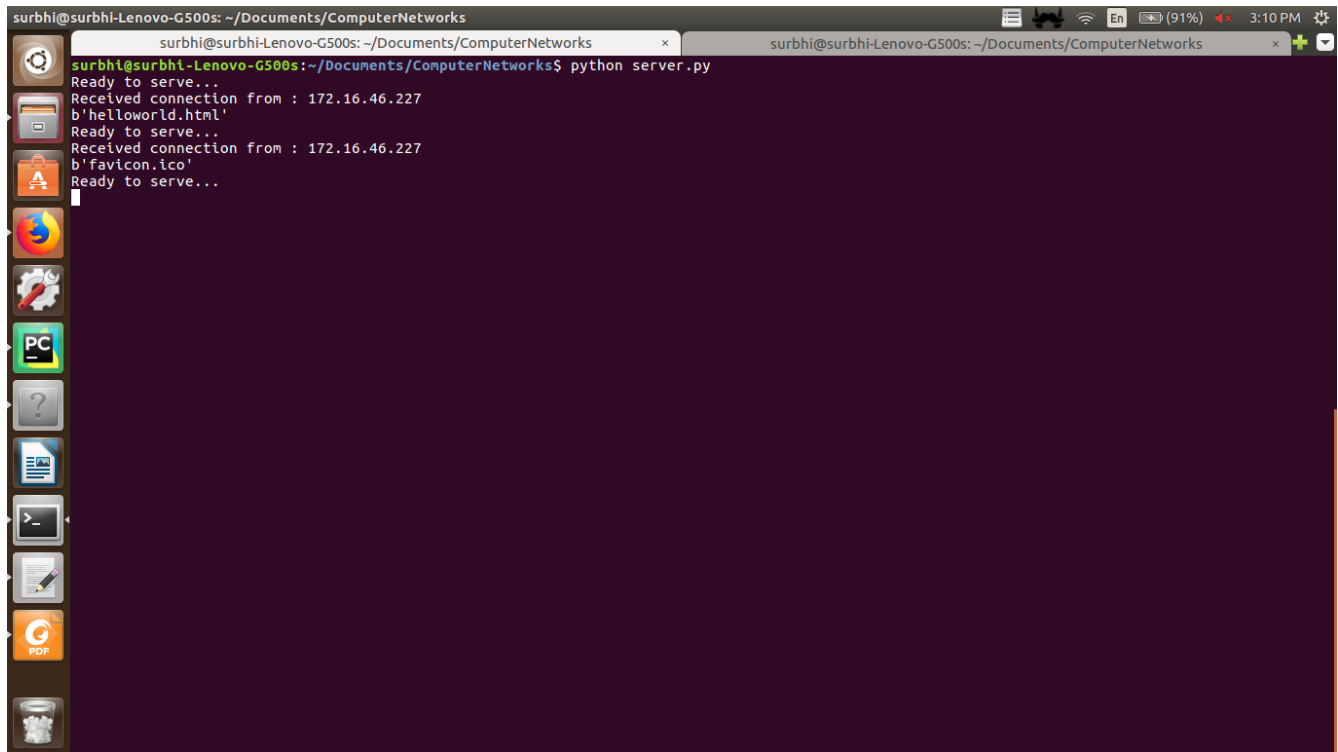
        connectionSocket.close()
    except IOError:
        #Send response message for file not found

        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()
```

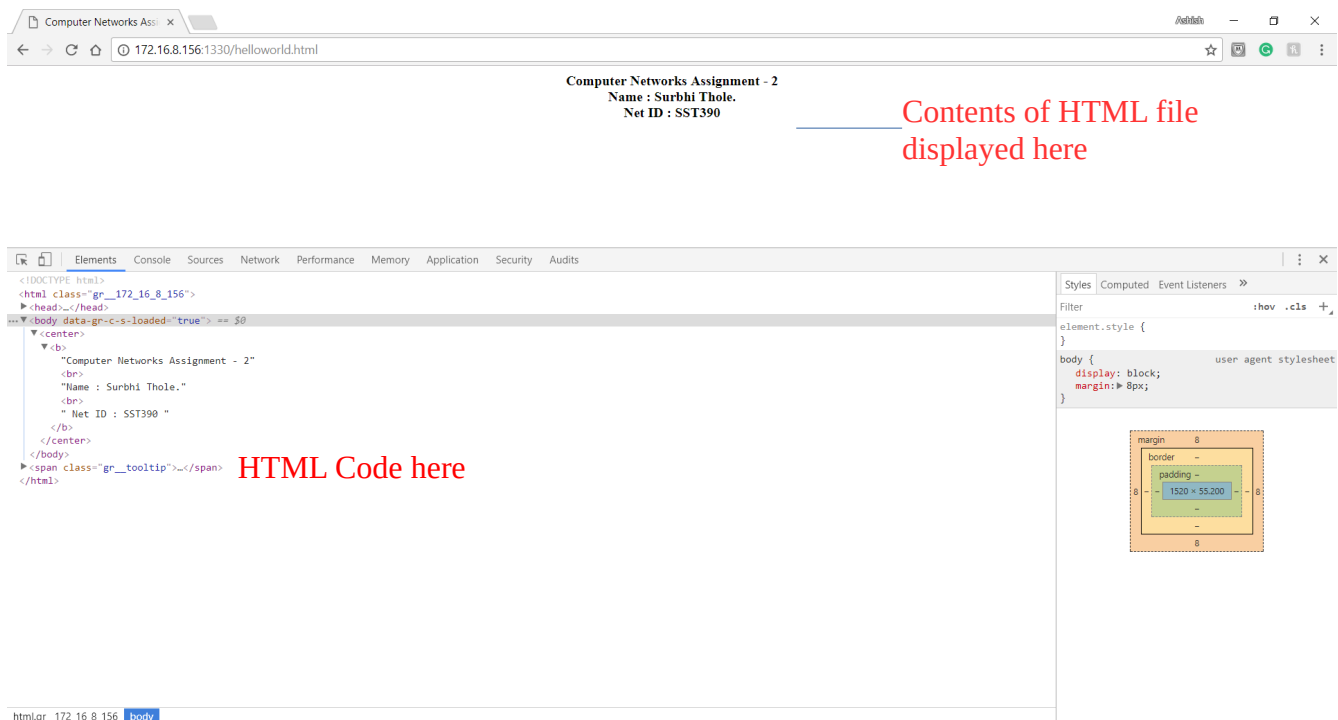
## Output is as follows:

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



```
surbhi@surbhi-Lenovo-G500s: ~/Documents/ComputerNetworks
surbhi@surbhi-Lenovo-G500s:~/Documents/ComputerNetworks$ python server.py
Ready to serve...
Received connection from : 172.16.46.227
b'helloworld.html'
Ready to serve...
Received connection from : 172.16.46.227
b'favicon.ico'
Ready to serve...
```

2) Client requesting for HTML file:



Computer Networks Assignment - 2  
Name : Surbhi Thole.  
Net ID : SST390

Contents of HTML file displayed here

HTML Code here

```
<!DOCTYPE html>
<html class="gr_172_16_8_156">
<head>...</head>
<body data-gr-c-s-loaded="true"> == $0
  <center>
    <b>
      "Computer Networks Assignment - 2"
    <br>
    "Name : Surbhi Thole."
    <br>
    " Net ID : SST390 "
    </b>
  </center>
</body>
<span class="gr_tooltip">...</span>
</html>
```

Styles Computed Event Listeners

Filter

element.style {

body {

display: block;

margin: 8px;

}

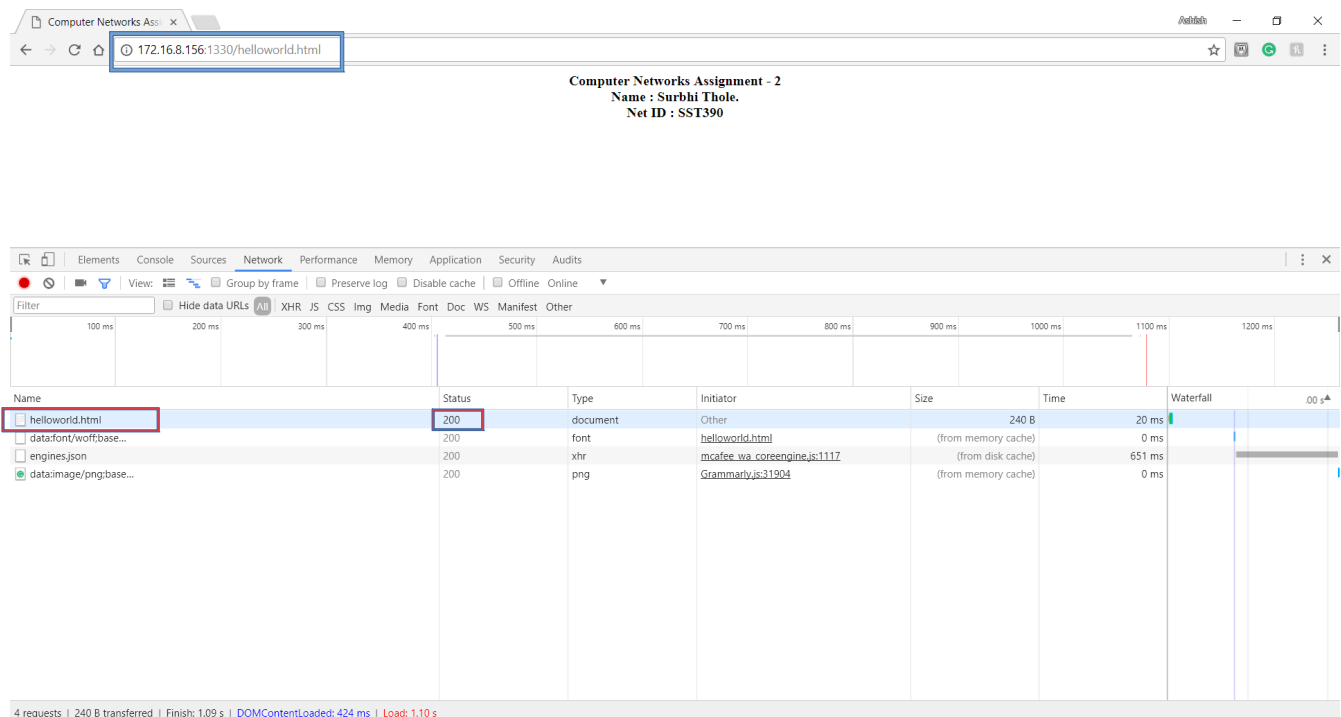
margin: 8px

border: 1px solid black

padding: 5px

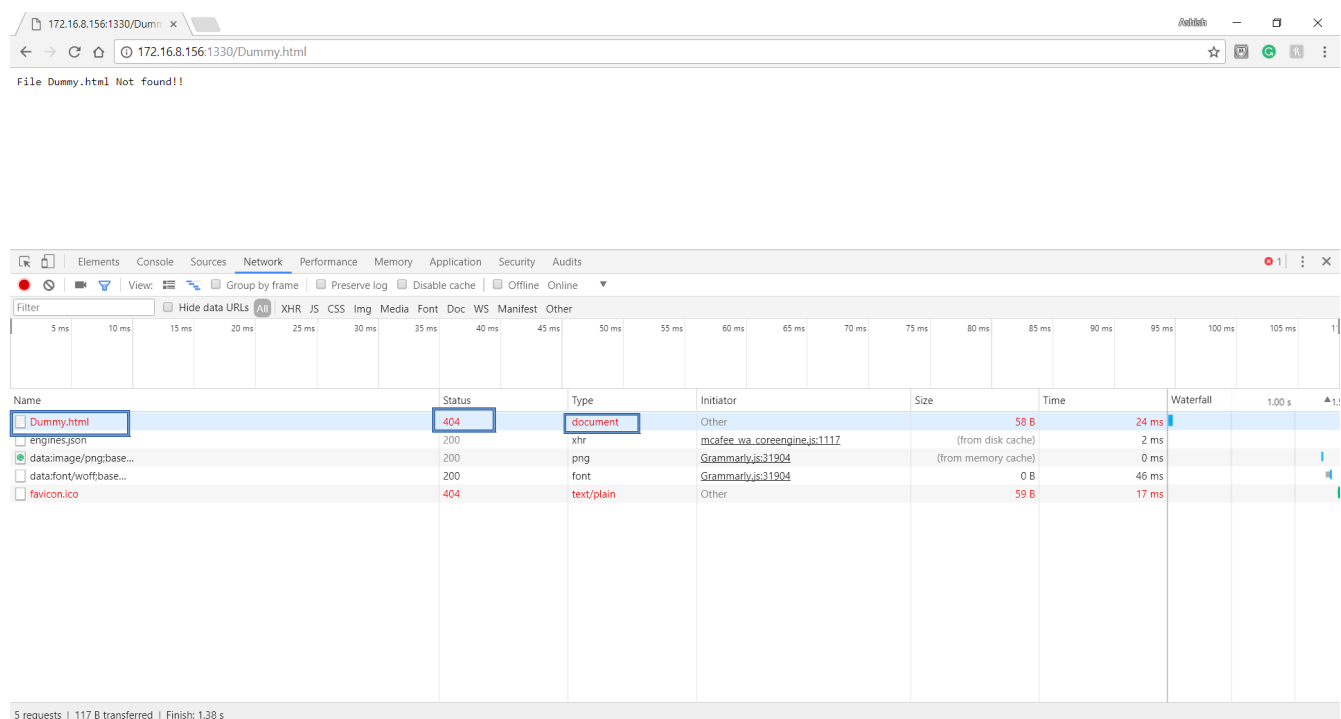
1520 x 55.200

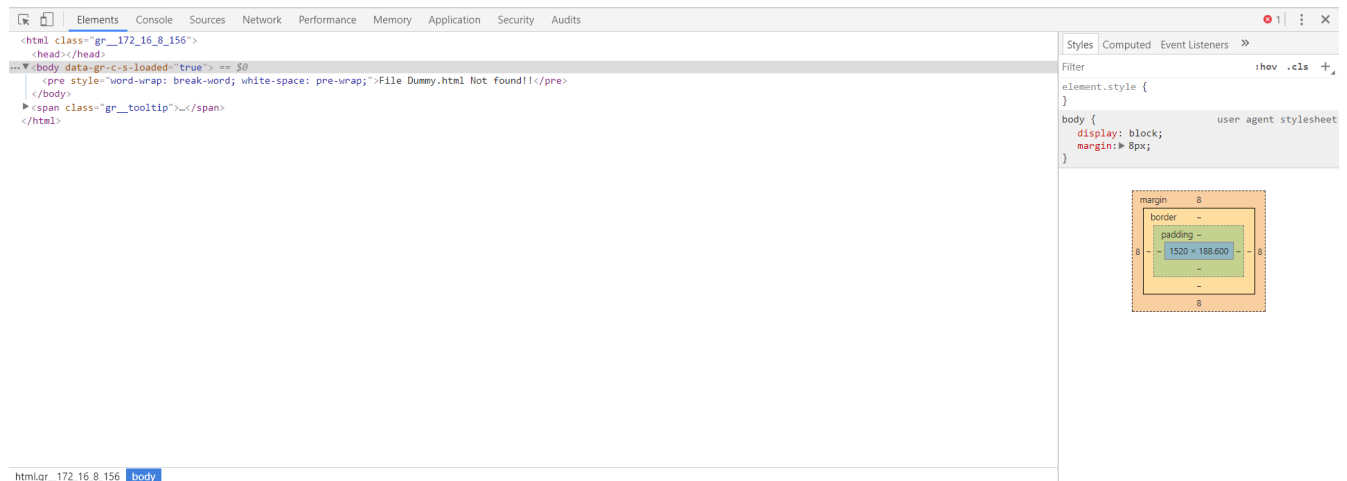
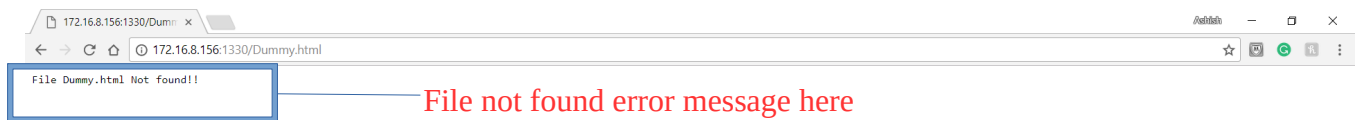
3) Below Image shows the “HTTP 200 OK” response and the file name that is being executed:



4) HTTP “404 Page not found error” Message:

- Consist of dummy filename which was requested by client.
- 404 Page Not found Error Message.





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

