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CPE 138 – 03

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23 April 2023

SOCKET PROGRAMMING ASSIGNMENT 3 – WEB SERVER

In this programming assignment, the task is to develop a simple Web server in Python. Below is the code for the webserver.py and index.html.

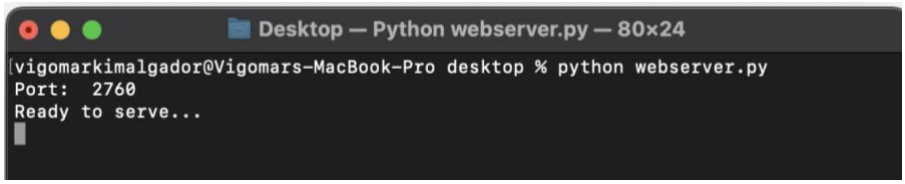
```
# Vigomar Kim Algador
# CSC138_04
# Socket Programming #03
#import socket module
from socket import *
import sys
serverSocket = socket(AF_INET, SOCK_STREAM)
#Prepare a sever socket
serverPort = 2760
serverSocket.bind(('',serverPort))
serverSocket.listen(1)
print "Port: ", serverPort

while True:
     #Establish the connection
     print('Ready to serve...')
     connectionSocket, addr = serverSocket.accept()
     try:
          message = connectionSocket.recv(1024)
          filename = message.split()[1]
          f = open(filename[1:])
          outputdata = f.read()
          #Send one HTTP header line into socket
          connectionSocket.send('HTTP/1.0 200 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.send("\r\n".encode())
          connectionSocket.close()
     except IOError:
          #Send response message for file not found
          connectionSocket.send('HTTP/1.1 404 Not Found\r\n\r\n')
          #Close client socket
          connectionSocket.close()
serverSocket.close()
sys.exit()
```

Figure 1. webserver.py

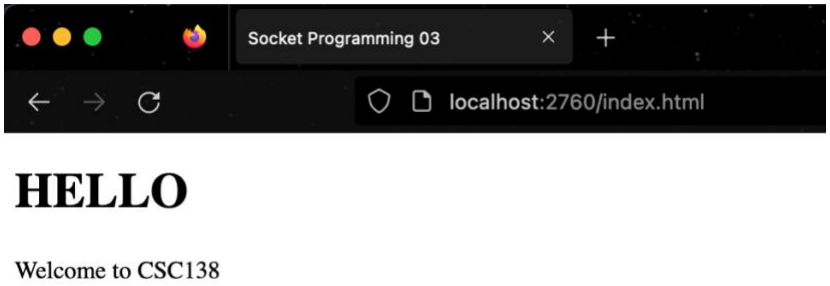
```html
<!DOCTYPE html>
<html>
     <head>
          <title>Socket Programming 03</title>
     </head>
     <body>
          <h1>HELLO</h1>
          <p>Welcome to CSC138</p>
     </body>
</html>
```

Figure 2. index.html

After creating the webserver.py and index.html, I was able to run the server and test it. Below is the output the running server.

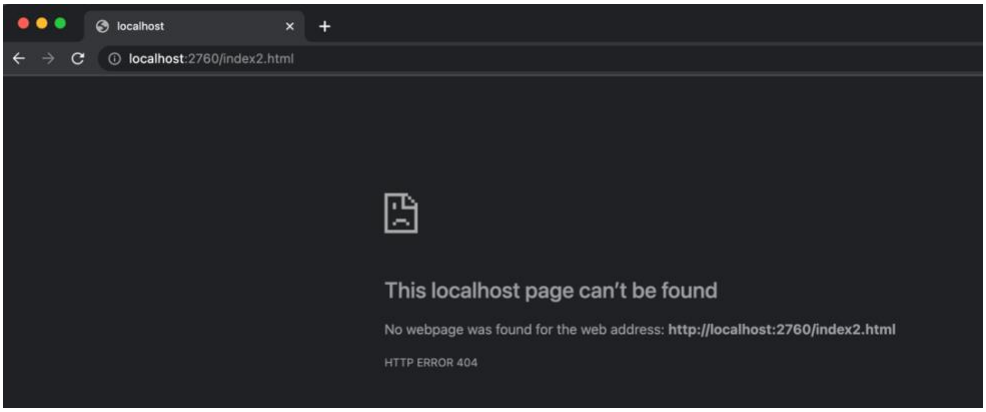


Screenshot of running webserver.py



Screenshot of the index.html

On the other hand, trying to get a file that is not presented in the server gave an error message shown below.



Screenshot of the index2.html