Socket Programming 1 Screenshots

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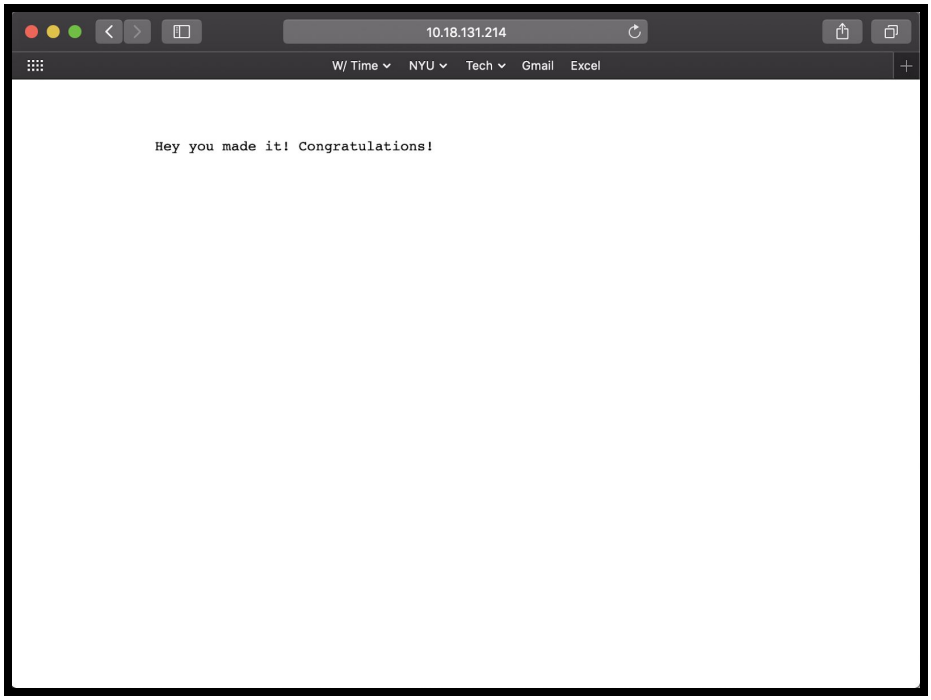
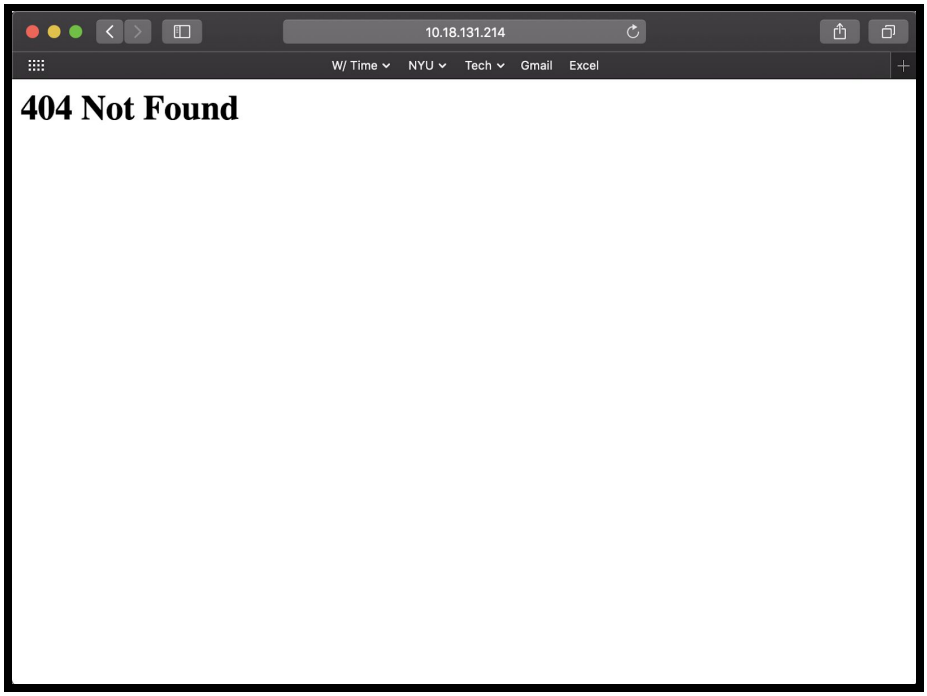
IP Configuration Screenshot:

```
10-18-131-214:~ ginajoerger$ ifconfig |grep inet
        inet 127.0.0.1 netmask 0xff000000
        inet6 ::1 prefixlen 128
        inet6 fe80::1%lo0 prefixlen 64 scopeid 0x1
        inet6 fe80::aede:48ff:fe00:1122%en5 prefixlen 64 scopeid 0x7
        inet6 fe80::44e:b53:eeed:1076%en0 prefixlen 64 secured scopeid 0x8
        inet 10.18.131.214 netmask 0xffff0000 broadcast 10.18.255.255
        inet6 fe80::e889:78ff:fe39:aedb%awdl0 prefixlen 64 scopeid 0xa
        inet6 fe80::e03f:8ed2:84f8:49c7%utun0 prefixlen 64 scopeid 0x10
        inet6 fe80::e11e:76:ff6a:9625%utun1 prefixlen 64 scopeid 0x11
```

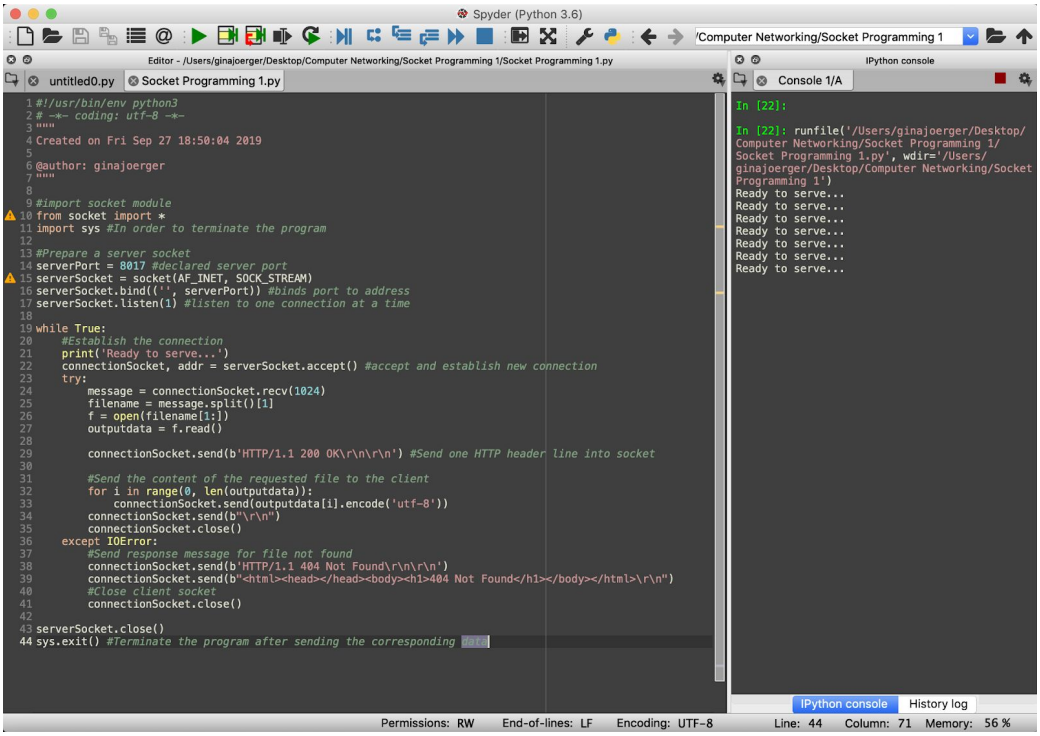
File Found Successfully:



File Not Found Successfully:



Server Running Successfully:




```
#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""
Created on Fri Sep 27 18:50:04 2019

@author: ginajoerger
"""

#import socket module
from socket import *
import sys #In order to terminate the program

#Prepare a server socket
serverPort = 8017 #declared server port
serverSocket = socket(AF_INET, SOCK_STREAM)
serverSocket.bind(('', serverPort)) #binds port to address
serverSocket.listen(1) #listen to one connection at a time

while True:
    #Establish the connection
    print('Ready to serve...')
    connectionSocket, addr = serverSocket.accept() #accept and establish new connection
    try:
        message = connectionSocket.recv(1024)
        filename = message.split()[1]
        f = open(filename[1:])
        outputdata = f.read()

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

        #Send the content of the requested file to the client
        for i in range(0, len(outputdata)):
            connectionSocket.send(outputdata[i].encode('utf-8'))
        connectionSocket.send(b"\r\n")
        connectionSocket.close()
    except IOError:
        #Send response message for file not found
        connectionSocket.send(b'HTTP/1.1 404 Not Found\r\n\r\n')
        connectionSocket.send(b"<html><head></head><body><h1>404 Not Found</h1></body></html>\r\n")
        #Close client socket
        connectionSocket.close()

serverSocket.close()
sys.exit() #Terminate the program after sending the corresponding data
```