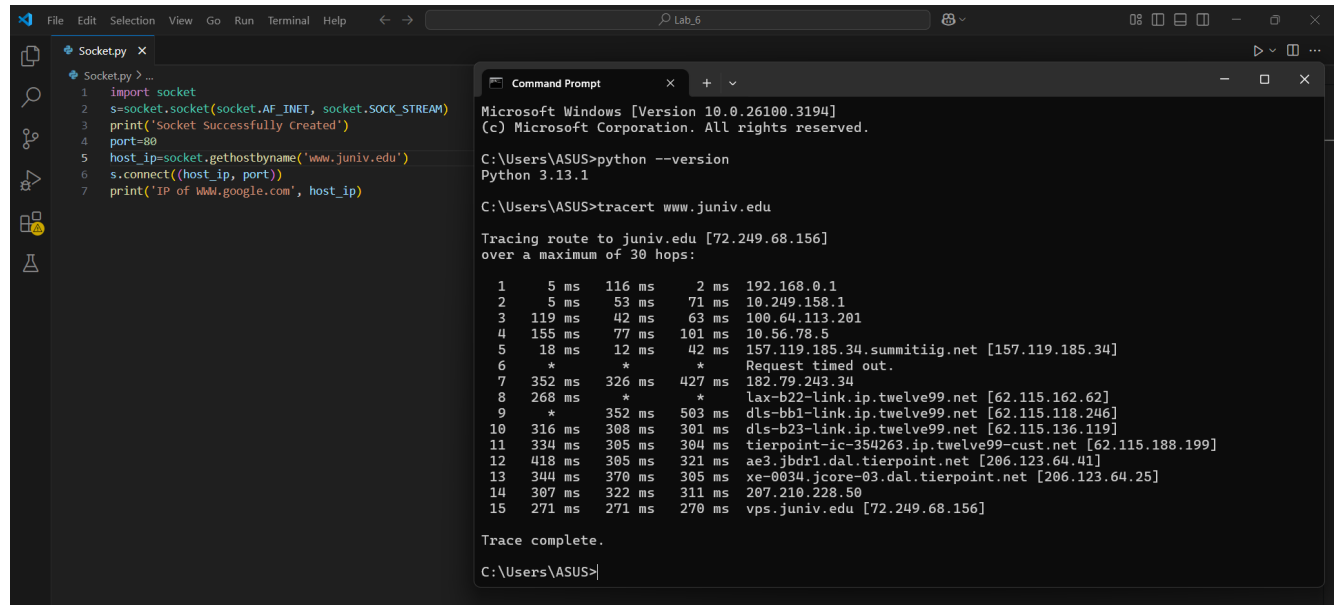


# Lab No :09

## Problem: 01(Socket Programming)



The screenshot shows a Visual Studio Code editor with a file named 'Socket.py' and a Windows Command Prompt window. The Python code in 'Socket.py' creates a socket, connects to 'www.juniv.edu' on port 80, and prints the IP address. The Command Prompt shows the execution of 'python --version' (Python 3.13.1) and 'tracert www.juniv.edu'. The traceroute output shows the path from the user's machine to juniv.edu, with a request timed out at the 5th hop.

```
1 import socket
2 s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
3 print('Socket Successfully Created')
4 port=80
5 host_ip=socket.gethostbyname('www.juniv.edu')
6 s.connect((host_ip, port))
7 print('IP of www.google.com', host_ip)
```

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS>python --version
Python 3.13.1

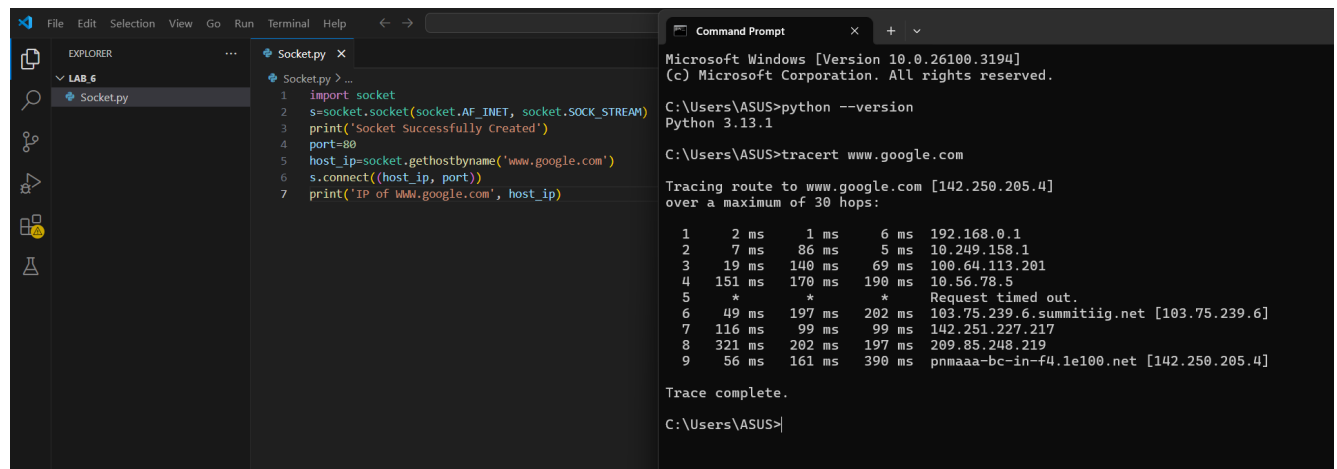
C:\Users\ASUS>tracert www.juniv.edu

Tracing route to juniv.edu [72.249.68.156]
over a maximum of 30 hops:

  0  5 ms  116 ms  2 ms  192.168.0.1
  1  5 ms  53 ms  71 ms  10.249.158.1
  2 119 ms  42 ms  63 ms  100.64.113.201
  3 155 ms  77 ms 101 ms  10.56.78.5
  4  18 ms  12 ms  42 ms  157.119.185.34.summitiig.net [157.119.185.34]
  5 * * * Request timed out.
  6 352 ms 326 ms 427 ms 182.79.243.34
  7 * * * lax-b22-link.ip.twelve99.net [62.115.162.62]
  8 * 352 ms 503 ms dls-bb1-link.ip.twelve99.net [62.115.118.246]
  9 316 ms 308 ms 301 ms dls-b23-link.ip.twelve99.net [62.115.136.119]
 10 334 ms 305 ms 304 ms tierpoint-ic-354263.ip.twelve99-cust.net [62.115.188.199]
 11 418 ms 305 ms 321 ms ae3.jbdr1.dal.tierpoint.net [206.123.64.41]
 12 344 ms 370 ms 305 ms xe-0034.jcore-03.dal.tierpoint.net [206.123.64.25]
 13 307 ms 322 ms 311 ms 207.210.228.50
 14 271 ms 271 ms 270 ms vps.juniv.edu [72.249.68.156]

Trace complete.

C:\Users\ASUS>
```



The screenshot shows a Visual Studio Code editor with a file named 'Socket.py' and a Windows Command Prompt window. The Python code in 'Socket.py' creates a socket, connects to 'www.google.com' on port 80, and prints the IP address. The Command Prompt shows the execution of 'python --version' (Python 3.13.1) and 'tracert www.google.com'. The traceroute output shows the path from the user's machine to google.com, with a request timed out at the 5th hop.

```
1 import socket
2 s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
3 print('Socket Successfully Created')
4 port=80
5 host_ip=socket.gethostbyname('www.google.com')
6 s.connect((host_ip, port))
7 print('IP of www.google.com', host_ip)
```

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS>python --version
Python 3.13.1

C:\Users\ASUS>tracert www.google.com

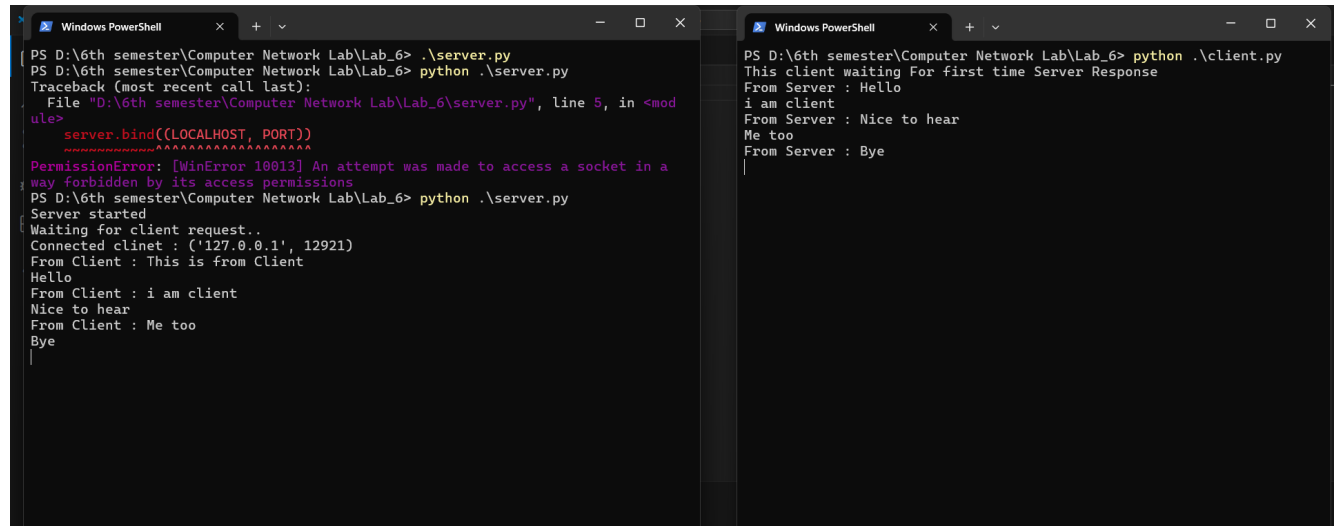
Tracing route to www.google.com [142.250.205.4]
over a maximum of 30 hops:

  0  2 ms  1 ms  6 ms  192.168.0.1
  1  7 ms  86 ms  5 ms  10.249.158.1
  2 19 ms 140 ms 69 ms 100.64.113.201
  3 151 ms 170 ms 190 ms 10.56.78.5
  4 * * * Request timed out.
  5 49 ms 197 ms 202 ms 103.75.239.6.summitiig.net [103.75.239.6]
  6 116 ms 99 ms 99 ms 142.251.227.217
  7 321 ms 202 ms 197 ms 209.85.248.219
  8 56 ms 161 ms 390 ms pnmaaa-bc-in-f4.1e100.net [142.250.205.4]

Trace complete.

C:\Users\ASUS>
```

## Problem: 02(Client Server Communications)



```
PS D:\6th semester\Computer Network Lab\Lab_6> .\server.py
PS D:\6th semester\Computer Network Lab\Lab_6> python .\server.py
Traceback (most recent call last):
  File "D:\6th semester\Computer Network Lab\Lab_6\server.py", line 5, in <module>
    server.bind((LOCALHOST, PORT))
PermissionError: [WinError 10013] An attempt was made to access a socket in a way forbidden by its access permissions
PS D:\6th semester\Computer Network Lab\Lab_6> python .\server.py
Server started
Waiting for client request..
Connected client : ('127.0.0.1', 12921)
From Client : This is from Client
Hello
From Client : i am client
Nice to hear
From Client : Me too
Bye
|
```

```
PS D:\6th semester\Computer Network Lab\Lab_6> python .\client.py
This client waiting For first time Server Response
From Server : Hello
i am client
From Server : Nice to hear
Me too
From Server : Bye
|
```