Socket

```python
import socket



ip = socket.gethostbyname('localhost')
print(ip)


```

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```
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python server.py
127.0.0.1
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ 
```

```python
1    import socket
2
3
4
5    ip = socket.gethostbyname('localhost')
6    print(ip)
7
8
9    Name=socket.gethostname()
10   print(Name)
11
12   Name2=socket.gethostbyaddr(str(ip))
13   print(Name2)
14
15   port=socket.getservbyport(80)
16   print(port)
17
18   port2=socket.getservbyname("ftp")
19   print(port2)
20
```

user@user-HP-Laptop-15-bs1xx: ~/Desktop/fcis/Second Semester/Net_Prog

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```
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python server.py
127.0.0.1
user-HP-Laptop-15-bs1xx
('localhost', [], ['127.0.0.1'])
http
21
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ 
```

```python
1   import socket
2
3
4
5   ip = socket.gethostbyname('www.google.com')
6   print(ip)
7
8
9   Name=socket.gethostname()
10  print(Name)
11
12  Name2=socket.gethostbyaddr(str(ip))
13  print(Name2)
14
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16  print(port)
17
18  port2=socket.getservbyname("ftp")
19  print(port2)
20
```

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```
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python server.py
216.58.211.196
user-HP-Laptop-15-bs1xx
('www.google.com', [], ['216.58.211.196'])
http
21
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$
```

server.py

```python
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
s.bind((Host,Port))
```

server.py

```python
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
s.bind((Host,Port))
s.listen(5)
while True:
    Comunication_socket,address=s.accept()
```

server.py

```python
s.listen(5)
while True:
    Comunication_socket,address=s.accept()

    print(f"Connection to {address} established")
```

server.py

```python
s.listen(5)
while True:
    Comunication_socket,address=s.accept()

    print(f"Connection to {address} established")

    message=Comunication_socket.recv( 1024).decode('utf-8')

    print(f"msg from client : {message} ")
```

server.py

```python
s.listen(5)
while True:
    Comunication_socket,address=s.accept()

    print(f"Connection to {address} established")

    message=Comunication_socket.recv( 1024).decode('utf-8')

    print(f"msg from client :  {message} ")

    Comunication_socket.send(( "Hi client , I'm server sending u a
msg").encode('utf-8'))

    Comunication_socket.close()

    print(f"comm ended ")
```

server.py

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import socket
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
s.bind((Host,Port))
s.listen(5)
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    print(f"msg from client : {message} ")

    Comunication_socket.send(("Hi client , I'm server sending u a msg").encode('utf-8'))

    Comunication_socket.close()

    print(f"comm ended ")
```
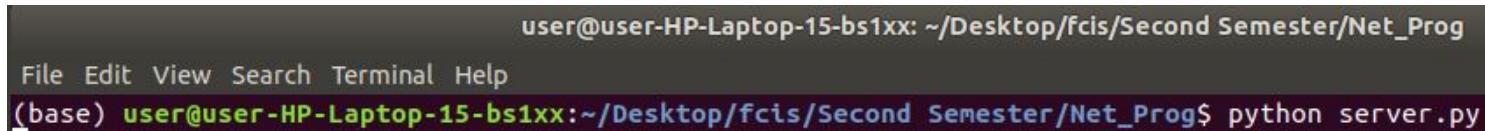
client.py

```python
import socket

socket_client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
socket_client.connect((Host,Port))

socket_client.send(("Hi server , I'm the Client").encode('utf-8'))

message=socket_client.recv(1024).decode('utf-8')

print(f"msg from the server : {message}")
```

```python
import socket

socket_client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
socket_client.connect((Host,Port))

socket_client.send(("Hi server , I'm the Client").encode('utf-8'))

message=socket_client.recv(1024).decode('utf-8')

print(f"msg from the server : {message}")
```

RUN : Server.py

Run : client.py


```
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(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python server.py
Connection to ('127.0.0.1', 60674) established
msg from client : Hi server , I'm the Client
comm ended
```

```
user@user-HP-Laptop-15-bs1xx: ~/Desktop/fcis/Second Semester/Net_Prog
File  Edit  View  Search  Terminal  Help
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python client.py
msg from the server : Hi client , I'm server sending u a msg
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$
```

RUN : client.py

```python
import socket

socket_client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
Host=socket.gethostname()
Port=1234
socket_client.connect((Host,Port))

socket_client.send(("Hi server , I'm the Client").encode('utf-8'))

message=socket_client.recv(1024).decode('utf-8')

print(f"msg from the server : {message}")
```

```
user@user-HP-Laptop-15-bs1xx: ~/Desktop/fcis/Second Semester/Net_Prog
File  Edit  View  Search  Terminal  Help
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python client.py
msg from the server : Hi client , I'm server sending u a msg
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$
```

```python
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
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    Comunication_socket,address=s.accept()

    print(f"Connection to {address} established")

    message=Comunication_socket.recv(1024).decode('utf-8')

    print(f"msg from client : {message} ")

    Comunication_socket.send(("Hi client , I'm server sending u a msg").encode('utf-8'))

    Comunication_socket.close()

    print(f"comm ended ")
```

```
                         user@user-HP-Laptop-15-bs1xx: ~/Desktop/fcis/Second Semester/Net_Prog

File  Edit  View  Search  Terminal  Help
(base) user@user-HP-Laptop-15-bs1xx:~/Desktop/fcis/Second Semester/Net_Prog$ python server.py
Connection to ('127.0.0.1', 60674) established
msg from client : Hi server , I'm the Client
comm ended
```