

## CSE1004 LAB2

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1)

### **Server:**

```
import socket
```

```
HOST = 'localhost'
```

```
PORT= 50007
```

```
s= socket.socket()
```

```
s.bind((HOST,PORT))
```

```
s.listen(1);
```

```
print("server listenting..")
```

```
MAC=["AB:12:34:2:DE","1A:AE:23:56:7F","12:45:59:ab:cd:67","1:34:7:ef:bc:d2","12:23:56:24:a  
b:e2","1:e:34:56:34:32","54:e2:f4:d4:fd:e1","21:38:23:12:ab:4","11:23:45:34:11:2e"]
```

```
IP=["10.20.30.40","1.23.34.35","10.45.67.78","21.76.34.56","11.43.45.56","10.5.67.234","12.34.62  
.3","23.6.5.98","11.34.45.67"]
```

```
conn,addr=s.accept()
```

```
print('connected by',addr)
```

```
while True:
```

```
    data = conn.recv(1024)
```

```
    for i in range (0,10) :
```

```
        if IP[i]==data.decode():
```

```
            m2="MAC is: "
```

```
            conn.sendall(m2.encode()+MAC[i].encode())
```

```
    if i==9:
```

```
        m1="sorry MAC not found"
```

```
        conn.sendall(m1.encode())
```

```
    if not data:
```

```
        break
```

```
conn.close()
```

### **Client:**

```
import socket
```

```
HOST = 'localhost'
```

```
PORT = 50007
```

```
s = socket.socket()
```

```
s.connect((HOST, PORT))
```

```
msg=input("Enter the IP Address: ")
```

```
s.sendall(msg.encode())
data = s.recv(1024)
s.close()
print(data.decode())
```

## OUTPUTS:

Test Case1:

server-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_server.py
server listenting..
connected by ('127.0.0.1', 60708)
```

client-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_client.py
Enter the IP Address: 10.5.67.234
MAC is: 1:e:34:56:34:32
```

Test Case2:

server-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_server.py
server listenting..
connected by ('127.0.0.1', 60710)
```

client-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_client.py
Enter the IP Address: 11.34.45.67
MAC is: 11:23:45:34:11:2e
```

TestCase3:

server-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_server.py
server listenting..
connected by ('127.0.0.1', 60742)
```

client-

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_1_client.py
Enter the IP Address: 11.22.44.55
sorry MAC not found
```

2)

Server:

```
import socket
```

```
HOST = 'localhost'
```

```
PORT= 50007
```

```
s= socket.socket()
```

```
s.bind((HOST,PORT))
```

```
s.listen(1);
```

```
print("server listenting..")
```

```

DOMAIN=["www.google.com","www.gmail.com","www.linkedin.com","www.youtube.com","ww
w.vit.ac.in","www.india.gov.in","www.researchgate.in","www.yahoo.com","www.facebook.com"]
IP=["10.20.30.40","1.23.34.35","10.45.67.78","21.76.34.56","11.43.45.56","10.5.67.234","12.34.62
.3","23.6.5.98","11.34.45.67"]
conn,addr=s.accept()

```

```

print('connected by',addr)
while True:

```

```

    data = conn.recv(1024)
    for i in range (9) :
        if not data:
            break
        if DOMAIN[i]==data.decode():
            m2="IP is: "
            conn.sendall(m2.encode()+IP[i].encode())

        if i==8 :
            m1="sorry Domain not found"
            conn.sendall(m1.encode())

```

```

conn.close()

```

Client:

```

import socket

```

```

HOST = 'localhost'
PORT = 50007
s = socket.socket()
s.connect((HOST, PORT))
msg=input("Enter the Domain Name: ")
s.sendall(msg.encode())
data = s.recv(1024)
s.close()
print(data.decode())

```

TestCase1:

server:

```

shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_server.py
server listening..
connected by ('127.0.0.1', 60730)

```

client:

```

shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_client.py
Enter the Domain Name: www.vit.ac.in
IP is: 11.43.45.56

```

TestCase2:

server:

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_server.py
server listenting..
connected by ('127.0.0.1', 60728)
```

client:

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_client.py
Enter the Domain Name: www.google.com
IP is: 10.20.30.40
```

TestCase3:

server:

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_server.py
server listenting..
connected by ('127.0.0.1', 60740)
```

client:

```
shivam23@shivam23-HP-EliteBook-840-G1:~/Desktop/netlab$ python3 lab2_2_client.py
Enter the Domain Name: linkedin.com
sorry Domain not found
```