Practical - 13

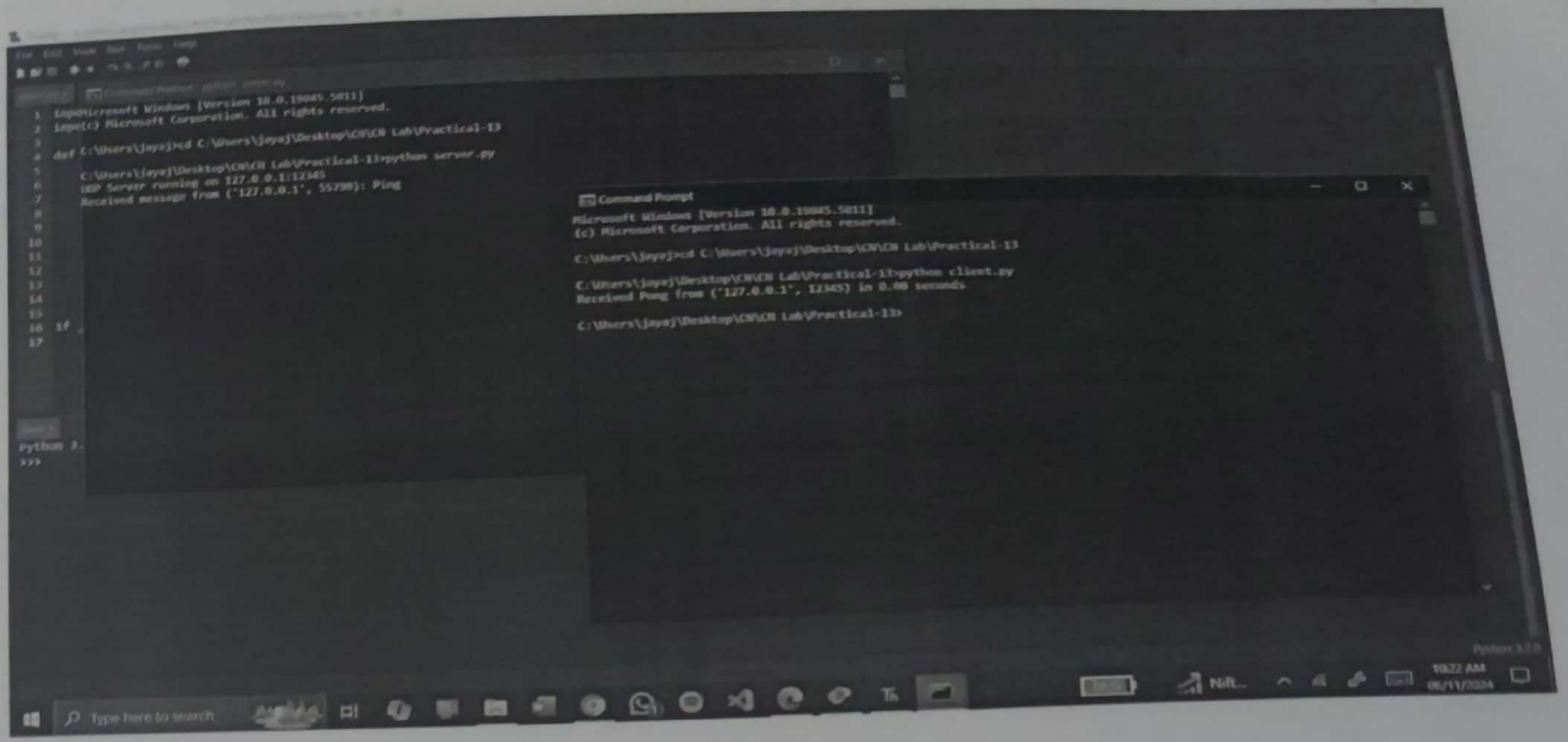
Aim: Implement your own ping program

Server.py

```
import socket
def start_server(host='127.0.0.1',
    port=12345):
with socket.socket(socket.AF_INET,
    socket.SOCK_DGRAM) as s:
    s.bind((host, port))
print(f"UDP server running on {host}:
    {port}")
while true:
    data, addr = s.recvfrom(1024)
print(f"Received message from
    {addr}: {data.decode()}")
    s.sendto(b'pong', addr)
start_server()
```

client.py:

```
import socket
import time
def ping(server(host='127.0.0.1',
    port=12345):
with socket.socket(socket.AF_INET,
    socket.SOCK_DGRAM) as s:
try:
    s.settimeout(2)
    start = time.time()
    s.sendto(b'ping'), (host, port))
    data, addr = s.recvfrom(1024)
    end = time.time()
print(f"Received {data.decode()}
    from {addr} in {end-start:.4f}
    seconds"),
```



except socket.timeout:
print ("Request timed out")
ping - server 1)

Output

Result:
Thus the program is successfully executed and output is verified.