

Ex NO:13

PING PROGRAM

DATE: 27.09.25

Aim:

To implement our own ping program

a) Server

```
import socket
```

```
def start_server(host = '127.0.0.1', port = 12345):
```

```
    with socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
```

```
        s.bind((host, port))
```

```
        print(f'UDP Ping servers running on {host}:{port}')
```

```
(object).recvfrom(1024)
```

```
while True:
```

```
    data, addr = s.recvfrom(1024)
```

```
    print(f'Received from {addr}: {data.decode()}')
```

```
s.sendto(b'Pong', addr)
```

```
(object) : rawall() bring
```

```
start_server()
```

b) Client

```
import socket
```

```
import time
```

```
def start_client(host, '127.0.0.1', port = 12345, count=5):
```

```
    with socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
```

```
        s.settimeout(2)
```

```
for i in range(count):
```

```
    start = time.time()
```

```
s.sendto(b'Ping', (host, port))
```

```
try:
```

```
    data, addr = s.recvfrom(1024)
```

```
end = time.time()
```

```
rtt = (end - start) * 1000
```

```
print(f'Reply from {addr}: {data.decode()}')
```

RTT = rtt / 2 "ms"

except socket.timeout:

```
print("Request timed out.")
```

time.sleep(5) → 5 sec delay

start-client()

Output:

Server:

UDP Ping Server is running on 127.0.0.1:12345
Received from ('127.0.0.1', 52735): Ping
Received from ('127.0.0.1', 52735): Ping
Received from ('127.0.0.1', 52735): Ping

client:

Reply from ('127.0.0.1', 12345): Pong | RTT = 0.56 ms
Reply from ('127.0.0.1', 12345): Pong | RTT = 0.58 ms
Reply from ('127.0.0.1', 12345): Pong | RTT = 1.82 ms

"1101" = main function

"d" = directory file

"q37" = user directory

"m" = directory file

"900" = user directory

"laptop" record "U" = main directory

{"main_directory": "laptop"} thing

{"q37": "q37 record"} thing

{"q37tab": "q37 record tab"} thing

{**"**} thing

(0:0x0, {"q37": null}, {bed2hs_tab: 0}, {"7-16": woff}) pins

Result:

The program has been executed successfully.

13/01/22