Practical - 13

Aim:

Implement your own ping program

CODE:

```
import socket
import time
import sys

def run_server (host = '127.0.0.1', port = 12345):
    with socket socket ( socket AF_inet, socket_DGRAM)
    as s:
        s- bind ((host, port))
        print (f" UDP server running on {host}:{port}")
        while True:
            data, addr = s. recvfrom (1024)
            s. sendto (b, 'pong', addr)

def run_client (host = 127.0.0.1', port = 12345)
    with socket. socket (socket. AF_INET, socket, SOCK_DGRAM)
    as s:
        s. settimeout (2)
        try:
            start= time.time()
            s. send to (b' ping', (host, port))
            data, addr = s.recvfrom (1024)
            end = time. time()
            print (f" pong from {addr} in {(end-start)
                * 1000 :.2f} ms")
```

```python
        except socket.timeout:
            print("Request timed out")

if __name__ == "__main__":
    if len(sys.argv) > 1 and sys.argv[1].lower() ==
    'server':
        run_server()
    else:
        run_client()
```

Result: Hence the ping program was executed successful