Experiment 13

(a)

Aim:- Implement Your own Ping Program.

Algorithm:-

(1) Create a UDP Socket
(2) Set a timeout of 2 seconds
(3) Record Start time.
(4) Send the message 'ping' to the Server
(5) Wait to receive a reponse from the Server
> If received, record end time and display the reply with round-trip time.
> If timeout occurs, print "Request time out".
(6) Close the Socket

Input:-

```
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:.2f} seconds")
    except socket.timeout:
            print("Request timed out")
```

```
if __name__ == "__main__":
    ping_sevesly
```

Output:

Received Ping from ('127.0.0.1', 12345) in 0.00 second

Request timed out