

EX.NO:4

CUSTOMIZED PING COMMAND TO TEST SERVER CONNECTIVITY

AIM:

To develop a customized ping command in python server connectivity.

ALGORITHM:

- 1.Import subprocess,platform and time.
- 2.Define a function custom-ping(host,count,timeout).
- 3.Detect the os and set the base ping command with appropriate parameters.
- 4.Initialize counters for packets sent,received,and a list for RTT values.
- 5.for each pack:
 - i) Record start time
 - ii) Execute ping command
 - iii) Record end time
 - iv) If success,calculate RTT,store it,print reply
 - v) Else,print request time out
- 6.print summary statistics
- 7.compute and display min,avg,max matrix.

CODE:

```
import socket, time
```

```
host = "google.com"
```

```
port = 80
```

```
count = 4
```

```
times = []
```

```
for i in range(count):
    try:
        s = socket.socket()
        start = time.time()
        s.connect((host, port))
        end = time.time()
        s.close()
        rtt = (end - start) * 1000
        times.append(rtt)
        print(f'Reply from {host}: time={rtt:.2f} ms')
    except:
        print("Request timed out")
```

```
if times:
    print("\nMin RTT =", min(times), "ms")
    print("Max RTT =", max(times), "ms")
    print("Avg RTT =", sum(times)/len(times), "ms")
```

OUTPUT:

The screenshot shows a Windows Command Prompt window titled "Command Prompt". The window contains the following text output:

```
Microsoft Windows [Version 10.0.26100.6584]
(c) Microsoft Corporation. All rights reserved.

C:\Users\vkdh>cd C:\Users\vkdh\OneDrive\Documents

C:\Users\vkdh\OneDrive\Documents>python ping.py2
Reply from google.com: time=219.31 ms
Reply from google.com: time=46.21 ms
Reply from google.com: time=38.44 ms
Reply from google.com: time=128.44 ms

Min RTT = 38.442373275756836 ms
Max RTT = 219.3124294281006 ms
Avg RTT = 108.10291767120361 ms

C:\Users\vkdh\OneDrive\Documents>python ping.py2
Reply from google.com: time=1108.76 ms
Reply from google.com: time=126.26 ms
Reply from google.com: time=100.48 ms
Reply from google.com: time=100.94 ms

Min RTT = 100.48341751098633 ms
Max RTT = 1108.7646484375 ms
Avg RTT = 359.11160707473755 ms

C:\Users\vkdh\OneDrive\Documents>
```

RESULT:

Therefore customized ping commands was implemented and server connectivity was tested.

NAME :DHARANI K

ROLL NO : 241901025

DEPARTMENT:CSE-CYBER SECURITY