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10.3.141.1 (f54101056)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MUXExec Tunneling Packages Settings Help

Quick connect...
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Name
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f54101056.b
lab_03.py
Remote monitoring
Follow terminal folk

MobaXterm Personal Edition
(SSH client, X server and netC:\Windows\system32\cmd.exe
C:\Users\User\Desktop\pratices>python client.py
Connected to 10.3.141.1:8000
please input message: CD
send:CD
echo:CD
please input message: SDS
send:SDS
echo:SDS
please input message: DSDS
send:DSDS
echo:DSDS
please input message: EXIT
send:EXIT
echo:EXIT
please input message: Traceback (most recent call last):
File "C:\Users\User\Desktop\pratices\client.py", line 12, in <module>
outdata = input('please input message:')
KeyboardInterrupt
C:\Users\User\Desktop\pratices>python client.py
Traceback (most recent call last):
File "C:\Users\User\Desktop\pratices\client.py", line 9, in <module>
s.connect((HOST, PORT))
ConnectionRefusedError: [WinError 10061] 無法連線，因為目標電腦拒絕連線。
C:\Users\User\Desktop\pratices>python client.py
Connected to 10.3.141.1:8000
please input message: hi
send:hi
echo:hi
please input message: hi
send:hi
echo:hi
please input message: EXIT
send:EXIT
Closed connection.
C:\Users\User\Desktop\pratices>

Linux raspberrypi 5.15.76-v7+ #1597 SMP Fri Nov 4
The programs included with the Debian GNU/Linux system
the exact distribution terms for each program are
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY,
permitted by applicable law.
Last login: Mon Nov 28 14:17:17 2022
f54101056@raspberrypi:~$ python server.py
server start at: 10.3.141.1:8000
wait for connection...
connected by ('10.3.141.103', 11089)
('10.3.141.103', 11089):hi
('10.3.141.103', 11089):hi
('10.3.141.103', 11089):EXIT
client closed connection.
```

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raspberrypi
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f54101056@raspberrypi:~$ ping -c
PING 192.168.43.236 (192.168.43.236) 56(84) bytes of data.
64 bytes from 192.168.43.236: icmp_seq=1 ttl=64 time=0.219 ms
64 bytes from 192.168.43.236: icmp_seq=2 ttl=64 time=0.122 ms
64 bytes from 192.168.43.236: icmp_seq=3 ttl=64 time=0.095 ms
64 bytes from 192.168.43.236: icmp_seq=4 ttl=64 time=0.097 ms
64 bytes from 192.168.43.236: icmp_seq=5 ttl=64 time=0.091 ms
64 bytes from 192.168.43.236: icmp_seq=6 ttl=64 time=0.128 ms
64 bytes from 192.168.43.236: icmp_seq=7 ttl=64 time=0.102 ms
64 bytes from 192.168.43.236: icmp_seq=8 ttl=64 time=0.103 ms
64 bytes from 192.168.43.236: icmp_seq=9 ttl=64 time=0.085 ms
64 bytes from 192.168.43.236: icmp_seq=10 ttl=64 time=0.089 ms
64 bytes from 192.168.43.236: icmp_seq=11 ttl=64 time=0.103 ms
^C
--- 192.168.43.236 ping statistics ---
11 packets transmitted, 11 received, 0% packet loss, time 10397ms
rtt min/avg/max/mdev = 0.085/0.112/0.219/0.036 ms
f54101056@raspberrypi:~$ ping google.com
PING google.com (tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e)) 56 data bytes
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=1 ttl=114 time=37.3 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=2 ttl=114 time=54.6 ms (DUP!)
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=3 ttl=114 time=62.4 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=4 ttl=114 time=63.5 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=5 ttl=114 time=58.7 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=6 ttl=114 time=47.9 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=7 ttl=114 time=53.4 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=8 ttl=114 time=179 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=9 ttl=114 time=44.9 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=10 ttl=114 time=124 ms
64 bytes from tsa01s11-in-x0e.1e100.net (2404:6800:4012:2::200e): icmp_seq=11 ttl=114 time=42.2 ms
^C
--- google.com ping statistics ---
11 packets transmitted, 11 received, +1 duplicates, 0% packet loss, time 10014ms
rtt min/avg/max/mdev = 37.336/67.074/178.654/40.160 ms
f54101056@raspberrypi:~$ traceroute google.com
-bash: traceroute: command not found
f54101056@raspberrypi:~$ traceroute google.com
traceroute to google.com (172.217.163.46), 30 hops max, 60 byte packets
1 192.168.43.1 (192.168.43.1) 2.585 ms 4.196 ms 3.998 ms
```

C:\Windows\system32\cmd.exe

Windows IP 設定

乙太網路卡 乙太網路 2:

媒體狀態 : 媒體已中斷連線
連線特定 DNS 尾碼 :

無線區域網路介面卡 區域連線* 1:

媒體狀態 : 媒體已中斷連線
連線特定 DNS 尾碼 :

無線區域網路介面卡 區域連線* 10:

媒體狀態 : 媒體已中斷連線
連線特定 DNS 尾碼 :

無線區域網路介面卡 Wi-Fi:

連線特定 DNS 尾碼 : ncku.edu.tw
連結-本機 IPv6 位址 : fe80::d187:57bf:e43:d5f2%13
IPv4 位址 : 10.6.207.108
子網路遮罩 : 255.255.255.0
預設閘道 : 10.6.207.253

C:\Users\User>ping google.com

Ping google.com [142.251.42.238] (使用 32 位元組的資料):

回覆自 142.251.42.238: 位元組=32 時間=156ms TTL=112
回覆自 142.251.42.238: 位元組=32 時間=26ms TTL=112
回覆自 142.251.42.238: 位元組=32 時間=15ms TTL=112
回覆自 142.251.42.238: 位元組=32 時間=13ms TTL=112

142.251.42.238 的 Ping 統計資料:

封包: 已傳送 = 4, 已收到 = 4, 已遺失 = 0 (0% 遺失),
大約的來回時間 (毫秒):
最小值 = 13ms, 最大值 = 156ms, 平均 = 52ms

C:\Users\User>tracert google.com

9	342 ms	152 ms	79 ms	192.192.61.203
10	75 ms	115 ms	173 ms	72.14.202.60
11	219 ms	33 ms	99 ms	172.253.64.127
12	966 ms	410 ms	135 ms	209.85.142.121
13	69 ms	32 ms	63 ms	tsa01s11-in-f14.1e100.net [142.251.42.238]

hackmd.io/@MCAS/Student_Lab09#ping

C:\Windows\system32\cmd.exe

Microsoft Windows [版本 10.0.19045.2251]
(c) Microsoft Corporation. 著作權所有，並保留一切權利。
C:\Users\User>ping google.com
Ping 要求找不到主機 google.com。請檢查名稱，然後再試一次。
C:\Users\User>
C:\Users\User>ping google.com
Ping 要求找不到主機 google.com。請檢查名稱，然後再試一次。
C:\Users\User>ping google.com
Ping google.com [142.251.43.14] (使用 32 位元組的資料):
回響自 142.251.43.14: 位元組=32 時間=31ms TTL=112
回響自 142.251.43.14: 位元組=32 時間=41ms TTL=112
回響自 142.251.43.14: 位元組=32 時間=49ms TTL=112
回響自 142.251.43.14: 位元組=32 時間=23ms TTL=112
142.251.43.14 的 Ping 統計資料:
封包: 已傳送 = 4, 已收到 = 4, 已遺失 = 0 (0% 遺失),
大約的來回時間 (毫秒):
最小值 = 23ms, 最大值 = 69ms, 平均 = 41ms
C:\Users\User>

3. 將手機連上AP，測試是否可以連到手機

4. 給電腦設定一個固定IP:10.3.141.xx(與原本DHCP配發的IP相同即可)

5. 查看從此電腦(10.3.141.xx)到google.com的路徑為何

3. Socket programming (70%, 要先完成第2題才會算分)
