

F14106155

第一題:

測試是否可以上網

查看隨便一個網址(e.g. google.com, apple.com, etc.)的 ip

查看到那個網頁的路徑

```
F14106155@raspberrypi:~ $ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=112 time=8.67 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=112 time=8.49 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=112 time=8.60 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=112 time=8.70 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=112 time=8.79 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=112 time=8.91 ms
^C
--- 8.8.8.8 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5052ms
rtt min/avg/max/mdev = 8.491/8.693/8.906/0.132 ms
F14106155@raspberrypi:~ $ ping google.com
PING google.com (142.251.42.238) 56(84) bytes of data.
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=1 ttl=112 time=8.55 ms
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=2 ttl=112 time=8.48 ms
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=3 ttl=112 time=8.39 ms
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=4 ttl=112 time=8.65 ms
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=5 ttl=112 time=8.63 ms
64 bytes from tsa01s11-in-f14.1e100.net (142.251.42.238): icmp_seq=6 ttl=112 time=8.62 ms
^C
--- google.com ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5013ms
rtt min/avg/max/mdev = 8.392/8.553/8.647/0.091 ms
F14106155@raspberrypi:~ $ traceroute google.com
traceroute to google.com (172.217.160.110), 30 hops max, 60 byte packets
 1 LAPTOP-MF7JB4TM.mshome.net (192.168.137.1)  2.700 ms * *
 2 * * *
 3 140.116.123.253 (140.116.123.253)  2.128 ms  2.173 ms  2.220 ms
 4 140.116.243.33 (140.116.243.33)  2.407 ms  2.328 ms  2.376 ms
 5 140.116.243.193 (140.116.243.193)  3.298 ms  3.030 ms  2.692 ms
 6 140.116.243.177 (140.116.243.177)  3.688 ms  3.521 ms  5.194 ms
 7 192.192.61.146 (192.192.61.146)  4.989 ms  4.531 ms  4.802 ms
 8 192.192.61.32 (192.192.61.32)  6.892 ms 192.192.61.24 (192.192.61.24)  7.821 ms  7.346 ms
 9 192.192.61.184 (192.192.61.184)  7.803 ms  8.672 ms  8.750 ms
10 192.192.61.203 (192.192.61.203)  8.604 ms  8.968 ms  8.889 ms
11 72.14.202.60 (72.14.202.60)  8.979 ms  8.855 ms  8.785 ms
12 * * *
13 108.170.244.65 (108.170.244.65)  10.516 ms  10.348 ms 142.251.226.170 (142.251.226.170)  8.433 ms
14 tsa03s06-in-f14.1e100.net (172.217.160.110)  8.599 ms 108.170.244.45 (108.170.244.45)  9.230 ms 108.170.225.177 (108.170.225.177)  9.450 ms
F14106155@raspberrypi:~ $
```

第二題:

➤ 更改 Hotspot 名稱&密碼

Hotspot

Basic

Security

Advanced

Logging

Basic settings

Interface

wlan0

SSID

yenhsun

Wireless Mode

802.11g - 2.4 GHz

Channel

1

Save settings

Stop hotspot

Restart hotspot

Hotspot

Basic

Security

Advanced

Logging

Security settings

Security type

WPA2

Encryption Type

CCMP

PSK

0908008904

➤ 測試是否可以上網

```
Microsoft Windows [版本 10.0.19044.2251]  
(c) Microsoft Corporation. 著作權所有，並保留一切權利。
```

```
C:\Users\User>ping 8.8.8.8
```

```
Ping 8.8.8.8 (使用 32 位元組的資料):  
回覆自 8.8.8.8: 位元組=32 時間=13ms TTL=112  
回覆自 8.8.8.8: 位元組=32 時間=8ms TTL=112  
回覆自 8.8.8.8: 位元組=32 時間=8ms TTL=112  
回覆自 8.8.8.8: 位元組=32 時間=8ms TTL=112
```

```
8.8.8.8 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 = 8ms, 最大值 = 13ms, 平均 = 9ms
```

```
C:\Users\User>
```

➤ 測試是否可以連到手機

```
C:\Users\User>ping 10.3.141.53
```

```
Ping 10.3.141.53 (使用 32 位元組的資料):  
回覆自 10.3.141.53: 位元組=32 時間=22ms TTL=64  
回覆自 10.3.141.53: 位元組=32 時間=27ms TTL=64  
回覆自 10.3.141.53: 位元組=32 時間=33ms TTL=64  
回覆自 10.3.141.53: 位元組=32 時間=56ms TTL=64
```

```
10.3.141.53 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 = 22ms, 最大值 = 56ms, 平均 = 34ms
```

```
C:\Users\User>_
```

➤ 給電腦設定一個固定 IP

DHCP Server

Server settingsAdvancedStatic LeasesClient listLogging

### Static leases

Clients with a particular hardware MAC address can always be allocated the same IP address. This option adds `dhcp-host` entries to the dnsmasq configuration.

a2:c1:81:78:66:ed	10.3.141.51	laptop	
MAC address	IP address	Optional comment	

### Restrict access

☐ Limit network access to static clients

Enable this option if you want RaspAP to **ignore any clients** which are not specified in the static leases list. This option adds `dhcp-ignore` to the dnsmasq configuration.

Save settingsStop dnsmasq

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

```
C:\Users\User>tracert google.com

在 30 個躍點上
追蹤 google.com [142.251.42.238] 的路由:

 1  <1 ms    <1 ms    <1 ms    10.3.141.1
 2   1 ms     1 ms     1 ms     140.116.123.253
 3   1 ms     1 ms     3 ms     140.116.243.33
 4   2 ms     2 ms     1 ms     140.116.243.193
 5  114 ms    30 ms    25 ms    140.116.243.177
 6   4 ms     3 ms     3 ms     192.192.61.146
 7   6 ms     6 ms     6 ms     192.192.61.32
 8   8 ms     7 ms     7 ms     192.192.61.188
 9   7 ms    49 ms     7 ms     192.192.61.203
10   8 ms    11 ms     9 ms     72.14.202.60
11  10 ms     9 ms     9 ms     172.253.64.127
^C
C:\Users\User>
```