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CSCI 351
Homework 2
3/1/2025

Example Run of my_ping.py

```
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py
usage: my_ping.py [-h] [-c COUNT] [-i WAIT] [-s PACKETSIZE] [-t TIMEOUT] destination
my_ping.py: error: the following arguments are required: destination
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com
56 bytes from 142.251.41.14, delay: 23.2ms
56 bytes from 142.251.41.14, delay: 22.7ms
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
Ping interrupted.
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com -c 3
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com -c 3 -i 2
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
56 bytes from 142.251.41.14, delay: 23.0ms
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com -c 3 -i 2 -s 10
10 bytes from 142.251.41.14, delay: 23.0ms
10 bytes from 142.251.41.14, delay: 22.6ms
10 bytes from 142.251.41.14, delay: 23.0ms
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com -c 3 -i 2 -s 10 -t 0.1
10 bytes from 142.251.41.14, delay: 23.0ms
10 bytes from 142.251.41.14, delay: 23.0ms
10 bytes from 142.251.41.14, delay: 22.9ms
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_ping.py google.com -c 3 -i 2 -s 10 -t 0.001
Ping request timed out.
```

Example run of my_traceroute.py (not working properly, see README for details)

```
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/my_traceroute.py google.com -q 3 -s
traceroute to google.com (142.251.41.14), 30 hops max, 3 probes per hop
 1 * * *
 2 * * *
 3 * * *
 4 * * *
 5 * * *
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 * * *
13 * * *
14 * * *
15 * * *
16 * * *
17 * * *
18 * * *
19 * * *
20 * * *
21 * * *
22 * * *
23 * * *
24 * * *
25 * * *
26 * * *
27 * * *
28 * * *
29 * * *
30 * * *
PS C:\Users\panka\repos\Ping-Traceroute> |
```

Just to see how an implementation using exclusively ICMP packets would have looked working properly, here is the output of the AI generated implementation, which I studied but could not fully understand, and which I did not submit.

```
PS C:\Users\panka\repos\Ping-Traceroute> & C:/Users/panka/anaconda3/python.exe c:/Users/panka/repos/Ping-Traceroute/deepseek_traceroute.py google.
traceroute to google.com (142.251.41.14), 30 hops max, 3 probes per hop
1 host-87-1.nyamvor.amherst.ny.us.clients.pavlovmedia.net (68.180.87.1) 0.0ms host-87-1.nyamvor.amherst.ny.us.clients.pavlovmedia.net (68.180.87
2 173.230.5.21 (173.230.5.21) 0.3ms 173.230.5.21 (173.230.5.21) 0.3ms 173.230.5.21 (173.230.5.21) 0.3ms (0 probes unanswered)
3 host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.
4 * * * (3 probes unanswered)
5 v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 22.9ms v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 23.0ms v3503.edge2.nylga1.pavl
1 host-87-1.nyamvor.amherst.ny.us.clients.pavlovmedia.net (68.180.87.1) 0.0ms host-87-1.nyamvor.amherst.ny.us.clients.pavlovmedia.net (68.180.87
2 173.230.5.21 (173.230.5.21) 0.3ms 173.230.5.21 (173.230.5.21) 0.3ms 173.230.5.21 (173.230.5.21) 0.3ms (0 probes unanswered)
3 host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.
4 * * * (3 probes unanswered)
5 v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 22.9ms v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 23.0ms v3503.edge2.nylga1.pavl
6 host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.
3 host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.pavlovmedia.net (66.253.252.18) 23.5ms host-252-18.nynycolo.
4 * * * (3 probes unanswered)
5 v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 22.9ms v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 23.0ms v3503.edge2.nylga1.pavl
6 host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.
4 * * * (3 probes unanswered)
5 v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 22.9ms v3503.edge2.nylga1.pavlovmedia.net (173.230.125.67) 23.0ms v3503.edge2.nylga1.pavl
6 host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.
7 142.251.225.87 (142.251.225.87) 24.0ms 142.251.225.87 (142.251.225.87) 23.5ms 142.251.225.87 (142.251.225.87) 23.5ms (0 probes unanswered)
6 host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.pavlovmedia.net (66.253.252.21) 25.1ms host-252-21.nynycolo.
7 142.251.225.87 (142.251.225.87) 24.0ms 142.251.225.87 (142.251.225.87) 23.5ms 142.251.225.87 (142.251.225.87) 23.5ms (0 probes unanswered)
8 142.251.53.149 (142.251.53.149) 23.0ms 142.251.53.149 (142.251.53.149) 23.0ms 142.251.53.149 (142.251.53.149) 23.0ms (0 probes unanswered)
9 lga34s40-in-f14.1e100.net (142.251.41.14) 23.4ms lga34s40-in-f14.1e100.net (142.251.41.14) 23.4ms lga34s40-in-f14.1e100.net (142.251.41.14) 2
3.4ms (0 probes unanswered)
PS C:\Users\panka\repos\Ping-Traceroute> 
```