

Brian Spier

CS 372

01 December 2024

Traceroute Portfolio Project

This program is simple to run. All that is required is that the user runs a line of code similar to this one in the main function.

```
icmpHelperPing.sendPing("www.governo.it")
```

```
686
687 # Choose one of the following by uncommenting out the line
688 # icmpHelperPing.sendPing("www.cityoflondon.gov.uk")
689 icmpHelperPing.sendPing("www.governo.it")
690 # icmpHelperPing.sendPing("www.crunchyroll.com")
691 # icmpHelperPing.sendPing("www.google.com")
692 # icmpHelperPing.sendPing("gaia.cs.umass.edu")
693 # icmpHelperPing.traceRoute("164.151.129.20")
694 # icmpHelperPing.traceRoute("122.56.99.243")
695
696
697 if __name__ == "__main__":
698     main()
699
```

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```
self.__destinationIpAddress = gethostbyname(self.__icmpTarget.strip())
socket.gaierror: [Errno 11001] getaddrinfo failed
PS G:\CS_372\Traceroute> g:; cd 'g:\CS_372\Traceroute'; & 'c:\Users\bspie\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\bspie\.vscode\
debugpy\x5cadapter\..\..\x5cdebugpy\x5clauncher' '53987' '-' 'G:\x5cCS_372\x5cTraceroute\x5cIcmpHelperLibrary.py' ;0e0f5b05-15a1-446e-a65e-6b586528eebc
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 0, Recieved = 0
Packet ID Number: Valid = True, Sent = 28344, Recieved = 28344
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.governo.it) 95.100.98.104
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 1, Recieved = 1
Packet ID Number: Valid = True, Sent = 28344, Recieved = 28344
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.governo.it) 95.100.98.104
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 2, Recieved = 2
Packet ID Number: Valid = True, Sent = 28344, Recieved = 28344
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.governo.it) 95.100.98.104
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 3, Recieved = 3
Packet ID Number: Valid = True, Sent = 28344, Recieved = 28344
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

www.governo.it Ping Stats
Packets Sent: 4
Packets Recieved: 4
Loss Rate: 0%
rtt Stats: Min 159.15ms, Max 159.92ms, Avg 159.62ms
PS G:\CS_372\Traceroute>
```

```

679 #
680 #
681 #
682 # #####
683 def main():
684     icmpHelperPing = IcmpHelperLibrary()
685
686
687     # Choose one of the following by uncommenting out the line
688     # icmpHelperPing.sendPing("www.cityoflondon.gov.uk")
689     # icmpHelperPing.sendPing("www.governo.it")
690     # icmpHelperPing.sendPing("www.crunchyroll.com")
691     icmpHelperPing.sendPing("www.google.com")
692     # icmpHelperPing.sendPing("gaia.cs.umass.edu")
693     # icmpHelperPing.traceRoute("164.151.129.28")
694     # icmpHelperPing.traceRoute("122.56.99.243")
695
696
697 if __name__ == "__main__":
698     main()
699

```

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```

Packets Recieved: 4
Loss Rate: 0%
rtt Stats: Min 14.76ms, Max 19.76ms, Avg 17.13ms
PS G:\CS_372\Traceroute> g; cd g:\CS_372\Traceroute; & 'c:\Users\bspie\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\bspie\.vscode\extensions\ms-python.python-2023.12.0\python\python.exe'
Pinging (www.google.com) 142.251.211.228
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 0, Recieved = 0
Packet ID Number: Valid = True, Sent = 45532, Recieved = 45532
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.google.com) 142.251.211.228
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 1, Recieved = 1
Packet ID Number: Valid = True, Sent = 45532, Recieved = 45532
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.google.com) 142.251.211.228
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 2, Recieved = 2
Packet ID Number: Valid = True, Sent = 45532, Recieved = 45532
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

Pinging (www.google.com) 142.251.211.228
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 3, Recieved = 3
Packet ID Number: Valid = True, Sent = 45532, Recieved = 45532
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqstuvwxyz

www.google.com Ping Stats
Packets Sent: 4
Packets Recieved: 4
Loss Rate: 0%
rtt Stats: Min 17.11ms, Max 21.15ms, Avg 19.32ms
PS G:\CS_372\Traceroute>

```

```

681 #
682 # #####
683 def main():
684     icmpHelperPing = IcmpHelperLibrary()
685
686
687     # Choose one of the following by uncommenting out the line
688     # icmpHelperPing.sendPing("www.cityoflondon.gov.uk")
689     # icmpHelperPing.sendPing("www.governo.it")
690     icmpHelperPing.sendPing("www.crunchyroll.com")
691     # icmpHelperPing.sendPing("www.google.com")
692     # icmpHelperPing.sendPing("gaia.cs.umass.edu")
693     # icmpHelperPing.traceRoute("164.151.129.20")
694     # icmpHelperPing.traceRoute("122.56.99.243")
695
696
697 if __name__ == "__main__":
698     main()
699

```

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```

Packets Recieved: 4
Loss Rate: 0%
rtt Stats: Min 159.15ms, Max 159.92ms, Avg 159.62ms
PS G:\CS_372\Traceroute> g;; cd 'g:\CS_372\Traceroute'; & 'c:\Users\bspie\AppData\Local\Programs\Python\Python311\python.exe' 'c:\U
Pinging (www.crunchyroll.com) 104.18.34.202
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 0, Recieved = 0
Packet ID Number: Valid = True, Sent = 21104, Recieved = 21104
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx

Pinging (www.crunchyroll.com) 104.18.34.202
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 1, Recieved = 1
Packet ID Number: Valid = True, Sent = 21104, Recieved = 21104
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx

Pinging (www.crunchyroll.com) 104.18.34.202
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 2, Recieved = 2
Packet ID Number: Valid = True, Sent = 21104, Recieved = 21104
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx

Pinging (www.crunchyroll.com) 104.18.34.202
Valid icmp Reply Packet: True
Sequence Number: Valid = True, Sent = 3, Recieved = 3
Packet ID Number: Valid = True, Sent = 21104, Recieved = 21104
Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx, Recieved = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuwx

www.crunchyroll.com Ping Stats
Packets Sent: 4
Packets Recieved: 4
Loss Rate: 0%
rtt Stats: Min 14.76ms, Max 19.76ms, Avg 17.13ms
PS G:\CS_372\Traceroute>

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686
687     # Choose one of the following by uncommenting out the line
688     icmpHelperPing.sendPing("www.cityoflondon.gov.uk")
689     # icmpHelperPing.sendPing("www.www.governo.it.com")
690     # icmpHelperPing.sendPing("www.crunchyroll.com")
691     # icmpHelperPing.sendPing("www.google.com")
692     # icmpHelperPing.sendPing("gaia.cs.umass.edu")
693     # icmpHelperPing.traceRoute("164.151.129.20")
694     # icmpHelperPing.traceRoute("122.56.99.243")
695
696
697 if __name__ == "__main__":
698     main()
699

```

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```

PS G:\CS_372\Traceroute> & 'c:\Users\bspie\AppData\Local\Programs\Python\Python311\python.exe' 'c:\User
Pinging (www.cityoflondon.gov.uk) 172.67.142.25463409ef
Valid icmp Reply Packet: True
    Sequence Number: Valid = True, Sent = 0, Recieved = 0
    Packet ID Number: Valid = True, Sent = 36488, Recieved = 36488
    Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxy, Recieved = ABCDEFGHI
Pinging (www.cityoflondon.gov.uk) 172.67.142.254
Valid icmp Reply Packet: True
    Sequence Number: Valid = True, Sent = 1, Recieved = 1
    Packet ID Number: Valid = True, Sent = 36488, Recieved = 36488
    Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxy, Recieved = ABCDEFGHI
Pinging (www.cityoflondon.gov.uk) 172.67.142.254
Valid icmp Reply Packet: True
    Sequence Number: Valid = True, Sent = 2, Recieved = 2
    Packet ID Number: Valid = True, Sent = 36488, Recieved = 36488
    Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxy, Recieved = ABCDEFGHI
Pinging (www.cityoflondon.gov.uk) 172.67.142.254
Valid icmp Reply Packet: True
    Sequence Number: Valid = True, Sent = 3, Recieved = 3
    Packet ID Number: Valid = True, Sent = 36488, Recieved = 36488
    Data: Valid = True, Sent = ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxy, Recieved = ABCDEFGHI
www.cityoflondon.gov.uk Ping Stats
    Packets Sent: 4
    Packets Recieved: 4
    Loss Rate: 0%
    rtt Stats: Min 15.00ms, Max 20.03ms, Avg 17.99ms
PS G:\CS_372\Traceroute>

```