Report:

Out of my initial 10 websites, 3 of them timed out (amazon.com, janestreet.com, and hudsonrivertrading.com) so I had to replace them.

Now to speak a bit about my script and how I got the Data below and the Plot below. The script architecture was pretty straightforward: First read in the target websites and collect the IPs. Then for each website/ip pair, send a probe packet until either 5 attempts have been made with no response or there is a successful response. If there was a successful response that wasn't from an unrelated source, then I would collect the RTT, count the number of hops and the number of bytes in the response. This was done for all 10 sites. After collecting all the data, I simply formatted everything into a json to save and plotted the data as a scatter plot according to the rubric. Both the Json Data and the Plot are shown down below under Data and Plot respectively.

Now to talk about the Plot. When looking at the hop_count vs RTT plot (shown below), there really isn't a correlation between the number of hops and RTT. Maybe if you were optimistic you could maybe find some sort of very slight trend but I think that would just be stretching it. Re-running the script multiple times the RTT vs Hops really seems arbitrary, sometimes there might be a more positive correlation but also sometimes for some reason it might seem slightly negative. Also a lot of the time there are heavy outliers that would skew any sort of maybe correlation you could find (in this instance it's apple.com but every different run seems to have a different outlier).

Some possible explanations for the lack of correlation:
1) code is being run through a VPN and a VM, could have implications on RTT/Hops
2) Because a lot of these websites are heavily heavily visited, lots of different paths a packet could take to route to these sites which means very very high variance in measured RTT/Hops

Data:

```
[
  {
    "schneier.com": {
      "ip": "199.16.173.239",
      "RTT": 0.8993148803710938,
      "Hops": 11
    }
  },
  {
    "facebook.com": {
      "ip": "31.13.66.35",
      "RTT": 1.0139942169189453,
      "Hops": 12
    }
  },
  {
    "leetcode.com": {
      "ip": "104.18.35.28",
      "RTT": 1.0418891906738281,
      "Hops": 9
    }
  },
  {
    "apple.com": {
      "ip": "17.253.144.10",
      "RTT": 2.005338668823242,
      "Hops": 9
    }
  },
  {
    "teamblind.com": {
      "ip": "54.192.30.50",
      "RTT": 0.9350776672363281,
      "Hops": 14
    }
  },
  {
    "google.co.jp": {
      "ip": "142.250.73.227",
      "RTT": 1.2149810791015625,
      "Hops": 13
    }
```

```json
  },
  {
    "deepmind.com": {
      "ip": "216.239.34.21",
      "RTT": 1.352071762084961,
      "Hops": 11
    }
  },
  {
    "nianticlabs.com": {
      "ip": "216.239.36.21",
      "RTT": 1.0857582092285156,
      "Hops": 11
    }
  },
  {
    "hltv.org": {
      "ip": "104.18.3.89",
      "RTT": 1.0216236114501953,
      "Hops": 9
    }
  },
  {
    "wuxiaworld.com": {
      "ip": "104.26.15.174",
      "RTT": 1.1286735534667969,
      "Hops": 9
    }
  }
]
```

Plot: