Project 2 Conclusions

General information:

Command to run program: sudo python3 distMeasurement.py

Websites are in targets.txt

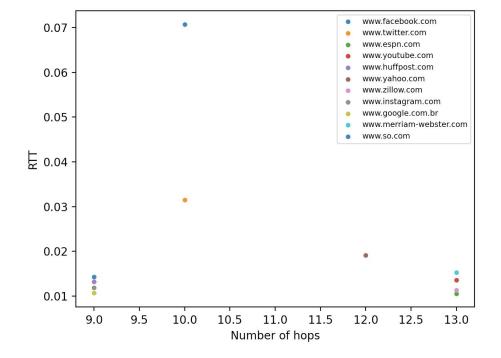
External libraries used: matplotlib

New png file will be created in the folder after the program runs which will portray correlation between hops and RTT.

These table and graph results are from my own computer. The results on the VM may differ.

For the bonus(425 portion), the data remaining value in the table does not include the headers inside the icmp payload.

Hostname	IP address	RTT(Time difference)	Hops	Data remaining
www.facebook.com	31.13.71.36	0.014300346374511719	9	520
www.twitter.com	104.244.42.129	0.03150606155395508	10	0
www.espn.com	143.204.151.63	0.010530948638916016	13	520
www.youtube.com	172.217.12.206	0.013580083847045898	13	0
www.huffpost.com	152.195.54.95	0.013178825378417969	9	520
www.yahoo.com	74.6.143.25	0.01907205581665039	12	0
www.zillow.com	143.204.151.58	0.011338949203491211	13	520
www.instagram.com	157.240.0.174	0.011822938919067383	9	520
www.google.com.br	172.217.165.131	0.010711908340454102	9	0
www.merrian-webster.com	143.204.151.128	0.015258073806762695	13	520
www.so.com	104.192.110.226	0.07074427604675293	10	520



Correlation of the number of hops and RTT for each of the websites:

Based on this scatter plot, there is no correlation with RTT as a function of number of hops. Some websites such as espn, zillow, youtube, and merrian-webster have 13 hops which is the largest with a rather small RTT. Other sites such as google, instagram, huffpost, and facebook have only 9 hops and a very small RTT as well. The remaining three sites which are twitter, yahoo, and so, are scattered across the plot. Therefore there does not seem to be any correlation with the number of hops and RTT.

^{*}Note: If the program gives error, rerun it and it should work however this error does not occur often.