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Homework #1 Part B

Experiment #1 - My DNS

My DNS (secs)	Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5	Attempt 6
google.com	0.08555	0.10147	0.08802	0.084	0.08402	0.09749
youtube.com	0.08402	0.08803	0.096	0.092	0.09202	0.08802
facebook.com	0.068	0.09603	0.07601	0.07602	0.07601	0.08409
Amazon.com	0.12402	0.22403	0.12803	0.1318	0.13202	0.13603
Wikipedia.org	0.12803	0.09602	0.13203	0.10004	0.20658	0.09202
Zoom.us	0.14404	0.21205	0.14003	0.12803	0.15203	0.20805
Instagram.com	0.08004	0.06918	0.08002	0.072	0.08801	0.07865
Netflix.com	0.10437	0.09241	0.09815	0.10002	0.13359	0.24627
Microsoft.com	0.12878	0.08002	0.09202	0.07979	0.07724	0.076
Reddit.com	0.13504	0.09202	0.09438	0.09182	0.09588	0.08867

Attempt 7	Attempt 8	Attempt 9	Attempt 10	Average	25th-Percentile	75-Percentile
0.10801	0.09266	0.08815	0.08804	0.091741	0.0861675	0.0962825
0.08785	0.10002	0.08419	0.08804	0.090019	0.0878925	0.092015
0.07606	0.08003	0.08	0.07943	0.079168	0.0760125	0.0800225
0.13088	0.12801	0.13603	0.12803	0.139888	0.12803	0.1350275
0.09604	0.09202	0.1247	0.13203	0.119951	0.096025	0.13103
0.18003	0.13603	0.13603	0.21205	0.164837	0.13703	0.201045
0.07242	0.072	0.07614	0.10783	0.079629	0.072105	0.080035
0.09239	0.10025	0.11454	0.10151	0.11835	0.0986175	0.1119975
0.10527	0.07229	0.08424	0.08825	0.08839	0.0778775	0.0910775
0.0921	0.09343	0.09193	0.10002	0.097529	0.0919525	0.095505

Experiment - Local DNS

Local DNS (secs)	Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5	Attempt 6
google.com	0.002	0.006	0.003	0.004	0.003	0.005
youtube.com	0.003	0.002	0.003	0.003	0.002	0.008
facebook.com	0.002	0.002	0.003	0.003	0.003	0.003
Amazon.com	0.004	0.008	0.002	0.005	0.003	0.003
Wikipedia.org	0.003	0.004	0.004	0.003	0.002	0.004
Zoom.us	0.005	0.002	0.004	0.002	0.002	0.008
Instagram.com	0.003	0.004	0.003	0.003	0.002	0.001
Netflix.com	0.006	0.007	0.003	0.004	0.006	0.006
Microsoft.com	0.008	0.003	0.003	0.004	0.002	0.003
Reddit.com	0.003	0.003	0.006	0.003	0.006	0.004

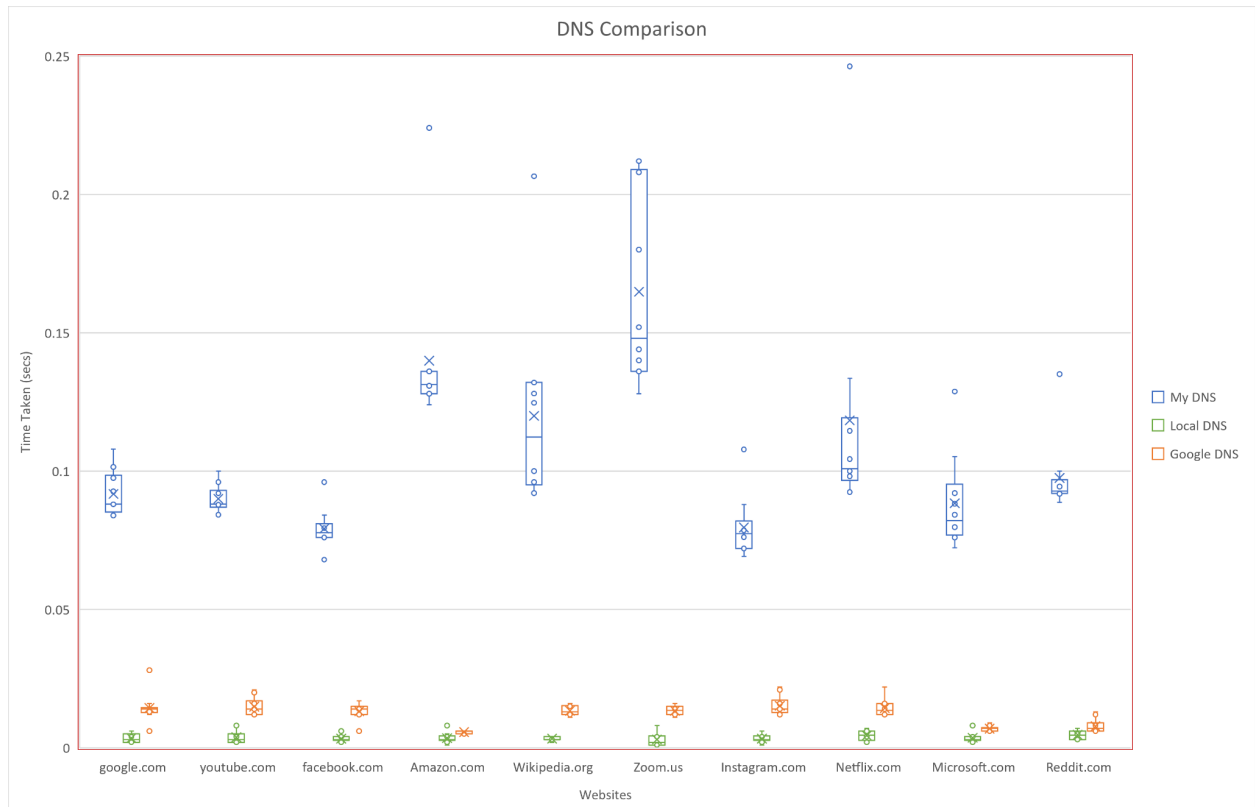
Attempt 7	Attempt 8	Attempt 9	Attempt 10	Average	25th-Percentile	75-Percentile
0.005	0.002	0.003	0.002	0.0035	0.00225	0.00475
0.004	0.008	0.003	0.002	0.0038	0.00225	0.00375
0.006	0.003	0.004	0.004	0.0033	0.003	0.00375
0.003	0.003	0.001	0.003	0.0035	0.003	0.00375
0.003	0.003	0.003	0.004	0.0033	0.003	0.004
0.001	0.001	0.004	0.001	0.003	0.00125	0.004
0.005	0.006	0.003	0.003	0.0033	0.003	0.00375
0.002	0.002	0.005	0.003	0.0044	0.003	0.006
0.004	0.002	0.004	0.003	0.0036	0.003	0.004
0.007	0.006	0.005	0.004	0.0047	0.00325	0.006

Experiment - Google's DNS

Google DNS (secs)	Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5	Attempt 6
google.com	0.028	0.012	0.013	0.014	0.014	0.014
youtube.com	0.021	0.02	0.012	0.016	0.014	0.015
facebook.com	0.017	0.014	0.015	0.014	0.013	0.014
Amazon.com	0.006	0.006	0.006	0.006	0.005	0.005
Wikipedia.org	0.016	0.015	0.013	0.016	0.012	0.013
Zoom.us	0.016	0.015	0.013	0.012	0.011	0.012
Instagram.com	0.021	0.015	0.022	0.016	0.014	0.012
Netflix.com	0.016	0.015	0.016	0.022	0.012	0.012
Microsoft.com	0.006	0.006	0.007	0.009	0.007	0.008
Reddit.com	0.006	0.006	0.007	0.013	0.007	0.008

Attempt 7	Attempt 8	Attempt 9	Attempt 10	Average	25th-Percentile	75-Percentile
0.013	0.016	0.006	0.014	0.0144	0.013	0.014
0.012	0.013	0.014	0.012	0.0149	0.01225	0.01575
0.015	0.012	0.012	0.006	0.0132	0.01225	0.01475
0.006	0.005	0.006	0.006	0.0057	0.00525	0.006
0.011	0.013	0.013	0.012	0.0134	0.01225	0.0145
0.015	0.012	0.02	0.014	0.014	0.012	0.015
0.014	0.012	0.013	0.013	0.0152	0.013	0.01575
0.014	0.012	0.013	0.012	0.0144	0.012	0.01575
0.006	0.007	0.007	0.006	0.0069	0.006	0.007
0.006	0.012	0.006	0.007	0.0078	0.006	0.00775

DNS Comparison Graph



According to the charts the dns resolver I created is significantly slower than those on my local DNS and Google's public dns. This can be due to the flaws in my code and the missing of caches that can help speed up response time. The difference between the local DNS and Google's public dns is minimal compared to mine. Their difference can possibly be due to the geographic distance between my computer and their servers. Since I am closer to the local dns it is faster than Google's public dns.