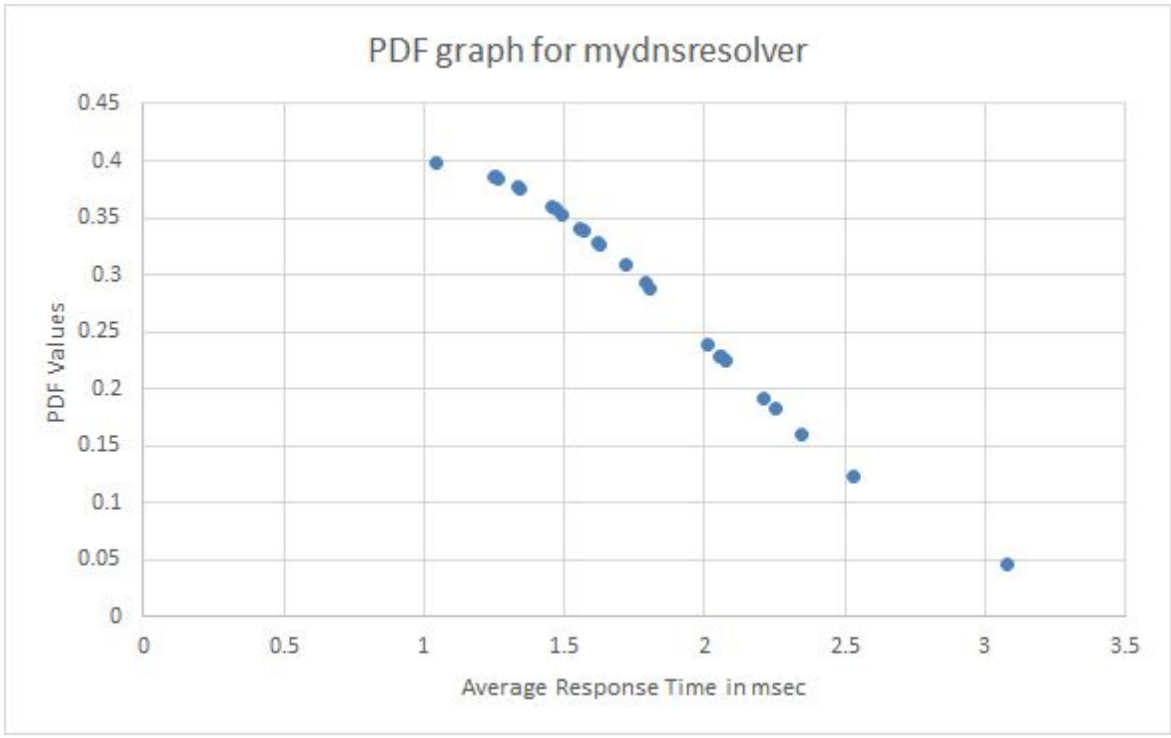
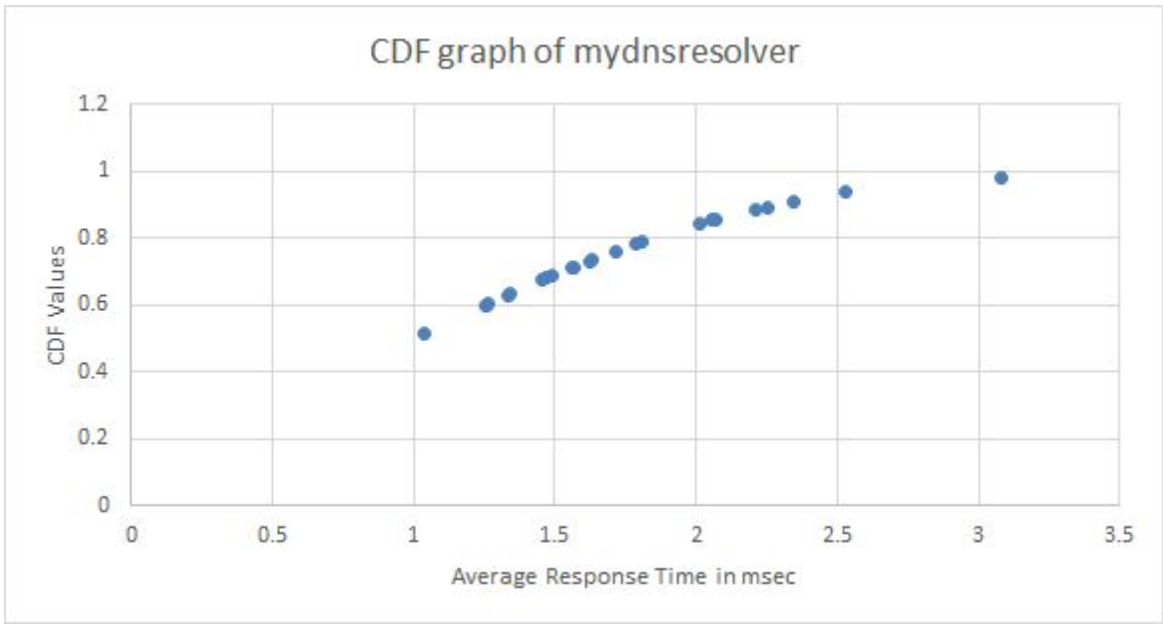
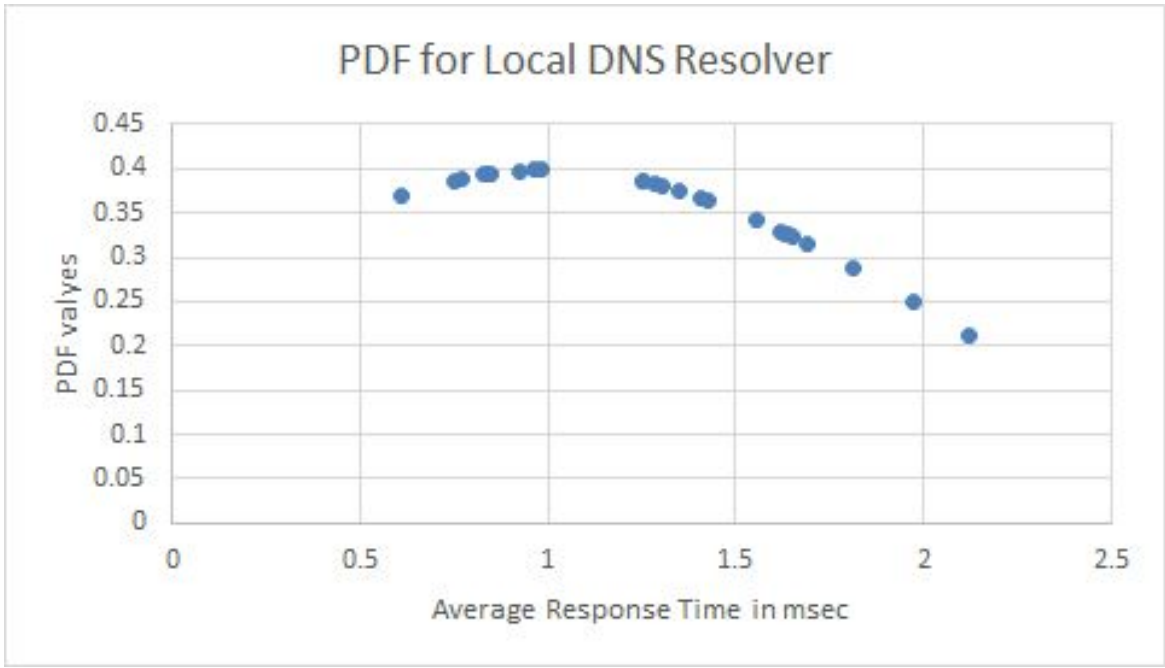
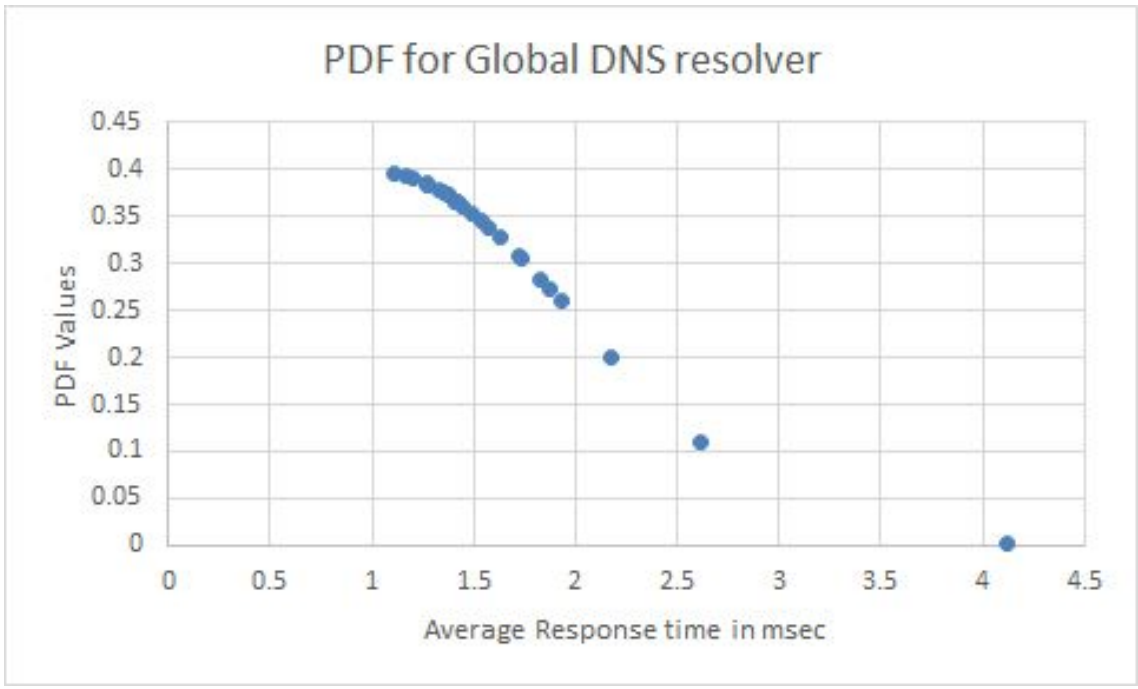
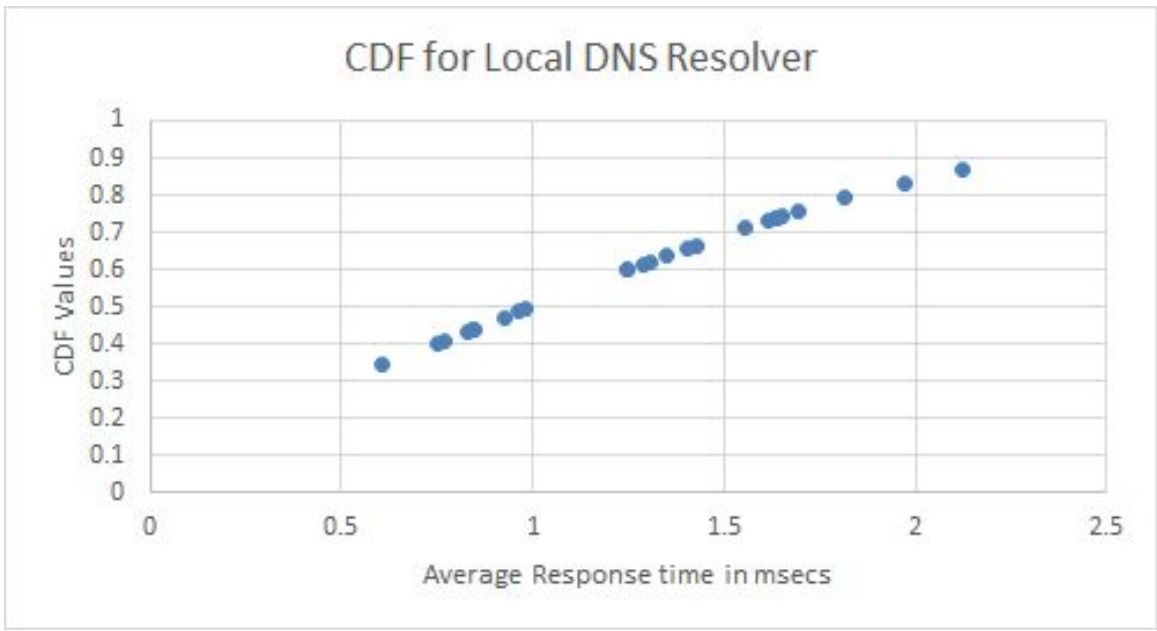
Part C:

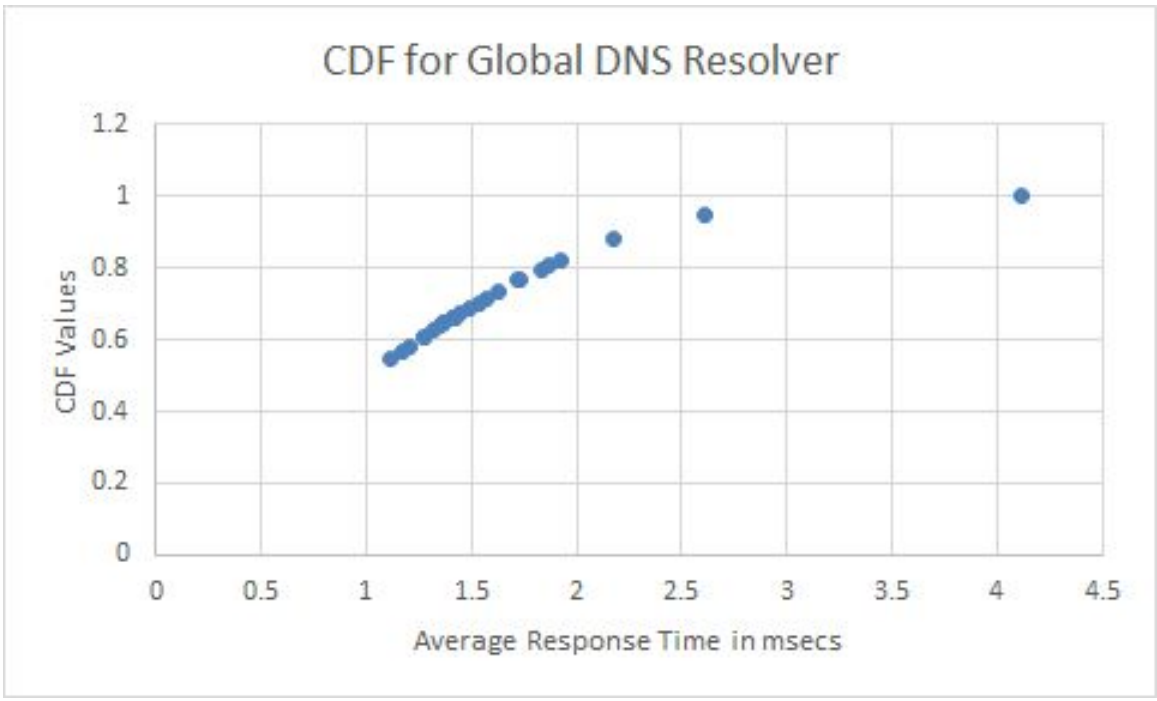

PDF graph for mydnsresolver
PDF Values
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.5
1
1.5
2
2.5
3
3.5
Average Response Time in msec


CDF graph of mydnsresolver
CDF Values
1.2
1
0.8
0.6
0.4
0.2
0
0
0.5
1
1.5
2
2.5
3
3.5
Average Response Time in msec


PDF for Local DNS Resolver
PDF valyes
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.5
1
1.5
2
2.5
Average Response Time in msec


PDF for Global DNS resolver
PDF Values
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
Average Response time in msec


CDF for Local DNS Resolver
CDF Values
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.5
1
1.5
2
2.5
Average Response time in msecs

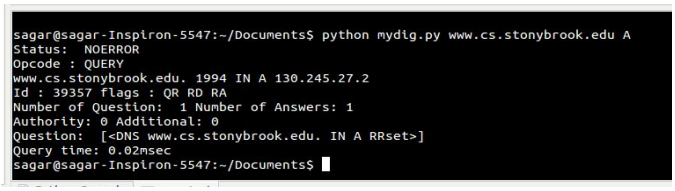


From the three plots it could be observed that with the mydnsresolver the average response time is more than that compared to local dns ip and public dns ip. Also from the distribution it is clear that with my dns resolver the probability of the query may return in the time interval of 1.25 to 2.5 msecs for mydnsresolver.

When we change the IP to the local dns resolver the resopnse time has significantly improved. Even better than the Global DNS IPs. We could infer from all the three graphs that if a query is made

-> using mydnsresolver the probability that the query response may come in the range of 1.25 to 2.5 msecs is more as compared to any other time window.
-> using local dns IP probability that the query response may come in the range of 0.5 to 1.5 msecs is more as compared to any other time window.
->using global dns IP probability that the query response may come in the range of 1 to 2 msecs is more as compared to any other time window.

Part D:



DNS Packet Response for www.cs.stonybrook.edu

Identification : 39357	Flags : QR RD RA
Number of Question : 1	Number of Answers : 1
Number of Authority RRs : 0	Number of Additional RRs : 0
Questions : [<DNS www.cs.stonybrook.edu. IN A RRset>]	
Answers:www.cs.stonybrook.edu. 11920 IN A 130.245.27.2	
Authority:	
Additional:	