**HW1 : DNS RESOLVER**

**PART A:**

This is a basic DNS resolver implemented in python using dnspython library. This internally uses the root servers mention in this url : <https://www.iana.org/domains/root/server.it> can support quires like NS,MX ,CNAME and A. The output is formatted and has sections as specified in requirement

EX:

python mydig www.cnn.com CNAME  
output  
QUESTION SECTION:  
www.cnn.com IN CNAME  
  
ANSWER SECTION:  
www.cnn.com 300 IN CNAME turner-tls.map.fastly.net.  
  
Query time: 18.499994278 msec  
WHEN: 02/18/18 14:10:33  
MSG SIZE rcvd: 62

**PART B:**

**PART C:**

This analysis is based on 3 resolvers local DNS resolver, my DNS resolver and google DNS resolver.

Top 25 websites in alexa.com were used for Calculation of the CDF. Time per website was calculated over average of 10 readings .Below is the detailed CDF graph it can be observed that google DNS and local DNS (130.245.255.4)resolvers perform better than mydns because of better caching mechanisms and better architecture used by these resolvers.

A close up of a map

Description generated with high confidence