**DNS Resolver**

**Group Members**

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**Platform**

Java

**Procedure**

Our resolver can work for type A and CNAME. To resolve DNS we have to set queries and firstly we need to send query message to the root server and it receives a message. Then the message is extracted. Then it checks the condition. If the answer section is empty the query message is sent again to the additional IP until getting a valid IP for the answer section.

But if the answer section is not empty then it prints the IP and CNAMES.

If there is no additional IP address then it sends authoritative name server address to the to the root to get their IP. Then the next query is sent to the IP.

To print CNAME, the canonical name address is sent to root to find its IP. The IP is returned a HOST NAME.

If there is no host name then SOA type server is received and prints “Does Not Exists.”

**Limitations**

As we have tested many servers we haven’t found any problem.

**Resource**

We have followed this tutorial below:

<https://routley.io/tech/2017/12/28/hand-writing-dns-messages.html>

and we have also used wireshark.