

DNS Resolver

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Language

Java

Platform

Unix

Procedure

The program first prompts the user to input an URL. The entered URL is split up, and a query is sent to one of the DNS servers whose IP addresses are predefined.

The response is received and analyzed by a series of functions, the answer is checked, if found empty, it queries the additional IP addresses and the process goes on till a valid answer is found at the answers section.

For CNAME, it is sent to the root servers for corresponding IP address.

In case the hostname doesn't exist, an SOA type server is received, and the user is informed.

The program only prints the IP address of the given URL.

Limitations

The program hasn't yet shown a limitation for any valid URL, and is expected to run well.

Resources

We used the following tutorial to learn about DNS queries

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