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Computer Networks Laboratory

IT 3095

Lab instructions
On

Introduction to DNS Protocol and fetching various DNS records

Part- C

Objective: To explore DNS functionality using Wireshark protocol analyzer and to understand the purpose of different kinds of DNS records like A, AAAA, CNAME, MX, NS,and SOA using Linux OS.

Software Required: Linux based OS

Procedure:

Type nslookup in terminal. If it throws some error, then you need to install it by issuing command **sudo apt install dnsutils** in terminal.

After installation, try the following commands:

- nslookup kiit.ac.in
    - This will give you the A and AAAA addresses of the KIIT servers.
- nslookup –type=ns kiit.ac.in
    - This will give you details about name servers of the KIIT.
- nslookup –type=mx kiit.ac.in
    - This will give you details about the mail servers of the KIIT.
- nslookup –type=soa kiit.ac.in
    - This will give you start of authority details of the KIIT servers.
- nslookup –type=any kiit.ac.in
    - This will give you all possible details of the KIIT servers.
- Do the similar exercise to get any particular record such as A, AAAA, NS, MX and CNAME.
- Finally, type date.

Observations: (Take a screen-shot for putting Outputs in the Record)

- Take a screenshot of the terminal such that the following records of the DNS server are captured: name, IPv4 address, IPv6 address, NS, SOA, MX.
    - **Note:** *Kindly ensure that your screenshot captures the time and date as well.*

Conclusion: After the experiment, you must be able to write a conclusion in your own words.

Outcomes:

- Students are now expected to be proficient in the inspection of DNS packets using Wireshark protocol analyzer.
- They must know various types of records maintained by DNS server.
- They must know the significance of various DNS records.
- They must know how to fetch various DNS records using Linux terminal.

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