31147

CNI

Assignment A8

Problem Statement:
Write a program for DNS lookup. Given an IP address
it should return URI and vice-versa.

Objectives:

1) Leaen about DNS (Domain Name system)

2) Leaen about IP address and getting it in JAVA/PATEPYTHO

SIW and HIW requirement:

Ubenty I Window.

Jana and Pyllon installed

VS Code (Code editor).

Jerminal.

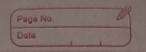
thinternet Human access information online through none, the facebook com . Web browsers interact thro

to IP addresses so browners can load internet resources.

Cach device corrected to the internet has a unique IP address which etter machines use to find the device. DNS server eliminate the need for humans to manoring IP addresses eliminate the need for humans to manoring IP addresses such as 192. 168. 1.1 (in IPV4) or more complex newer alphanemeric, IP addresses such as 2400: cb00: 2048; 1:

(629: d7a2 (in IPV6),

The process of DNS resolution involves converting a hostname with a computer friendly IP address. An IP address is given to unto a computer friendly IP address is and that address is necessary each device on the Internet is and that address is necessary to find, the appriate internet device.



When a user wants to load a webpage, a translation must occur between what is user types into their web browser and the machine friendly address necessary to locate that page.

In order to understand the process behind the DNS resolution it important to learn about the different hardware components a DNS query must pass between For web browser the DNS lookup vecus behind the scenes and requires no interaction from the users computer apart from the initial request.

JAVA Code:

import java.net. *;

Class Dislockup {

public static void main (String [] args) {

try f

Scanner Scan = new Scanner (System.in)

System.out.print (pons to JP in Enter Hostname:");

String host = Scan-next Line();

System.out.printlin (TP: "+ Trot Address get Byware (host)

get Host Address ();

System.out-println("IP-toDNS in Enter Hosthame:");

String ip = Scan.nextLine();

System.out-println("Domain:" + InotAddress getBNAme(ip).gatkort almos);

Catch (Exception C) (

e. printstaat trace();

Rython Code: domain = input ("Enter Domain Name!")

ip = Socket gethost by name (domain),

print ("Domain name fo) IP is \$13" format (domain, ip)) except Exception: print (Error Occured is DNS to IP" ip = input ("Enter IP address?") domain name = socket gethostbyaddr (ip)
print ("IP (0) Domain name is (i)" format (ip, domain name)) Except Exception: print ("Error Occured") Test Cases: Python: DRIS to IP Enter domain name: Domain Name WWW. facebook. com IP is 157.240.16.35 IP to DNS Enter ID address: 157.240.16.35 IP 157.240.16.35 Domain Name is ('edge-star-min'-Shv-01-bom) facibook. Com', [] ['157.240.16.35'] Java: 2) ONS to IP Enter Hostname: grad. com IP: 216.58.196.101 IP to DNS Enter Heat IP: 8.8.8.8. Domain: das google ONS to IP Enter Hostname des google IP : 8.8.2.8 IP to DNS Enter Hostname: 216.58.196.101 Domain: mag 03519 - in - flot. le 100 net Conclusion: heard about DNS and lookup DNS to get IP address & vice versa

