COMPUTER COMMUNICATION NETWORKS

LAB EXPERIMENT 15

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BATCH: 2018-2022
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AIM: To code a DNS_lookup program in Python

Theory: The Domain Name System (DNS) is the phonebook of the Internet. Humans access information online through domain names, like nytimes.com or espn.com. Web browsers interact through Internet Protocol (IP) addresses. DNS translates domain names toIP addresses browsers can load Internet resources.

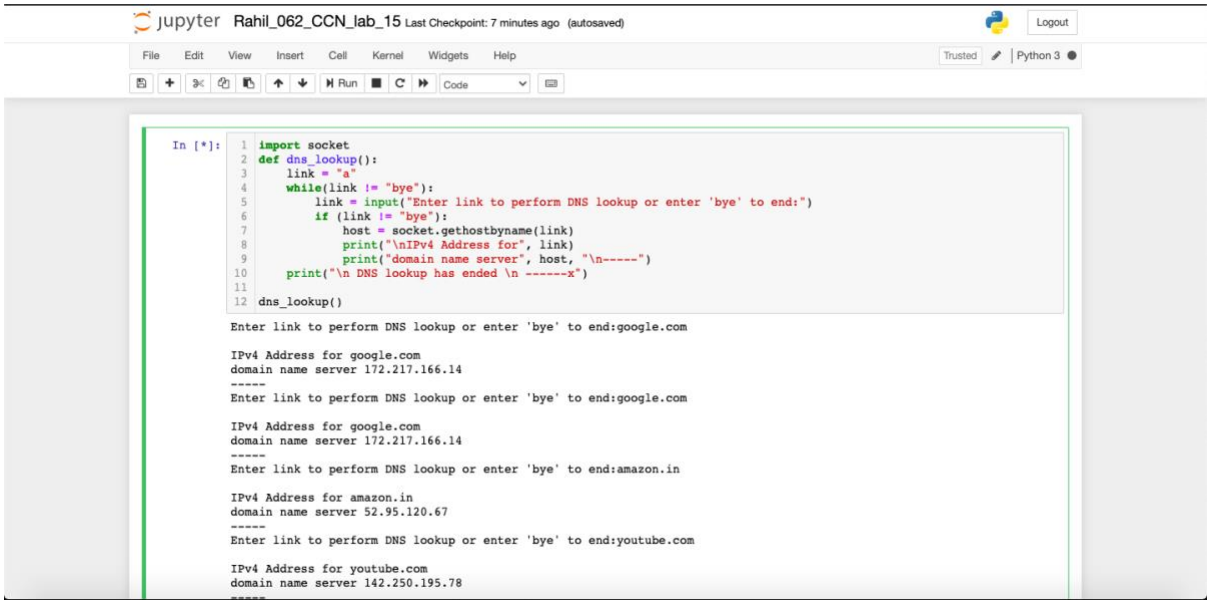
The process of DNS resolution involves converting a hostname (such as www.example.com) into a computer-friendly IP address (such as 192.168.1.1). An IP address is given to each device on the Internet, and that address is necessary to find the appropriate Internet device -like a street address is used to find a particular home. When a user wants to load a webpage, a translation must occur between what a user types into their web browser (example.com) and the machine-friendly address necessary to locate the example.com webpage.

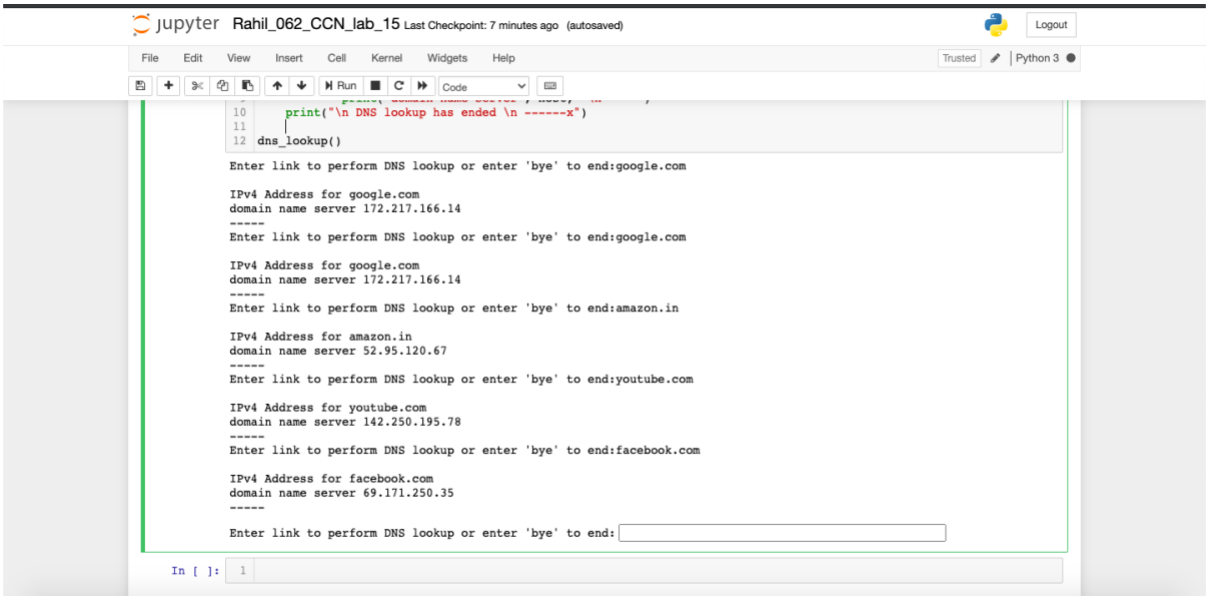
Code of the Program:

```
import socket
def dns_lookup():
    link = "a"
    while(link != "bye"):
        link = input("Enter link to perform DNS lookup or enter 'bye' to end:")
        if (link != "bye"):
            host = socket.gethostbyname(link)
            print("\nIPv4 Address for", link)
            print("domain name server", host, "\n-----")
    print("\n DNS lookup has ended \n ------x")

dns_lookup()
```

Screenshots of the Output of the Program:





CONCLUSION: From this experiment we have understood the concept of DNS_lookup in computer communications.