LAB: 4

Course-B.Tech	Type- Core
Course Code- CSET 207	Course Name- Computer Networks
Year- II	Semester- IV
Date – 30/01/2023	Batch- NA

CO- Mapping

Exp No.	Name	CO-1	CO-2	CO-3
4.1	Implementation of DHCP Server - Dynamic Host Configuration Prototcol	✔	✔	-

Objective: Assume your company employs 300 people, and each one has a workstation, a laptop, and an IP Telephone. As the network administrator, you must manually set each employee's device's IP address. Even the first setting would take a considerable amount of time. It is almost inevitable that their IP addresses will need to be changed if any of them move. How can you give them IP addresses in this situation?
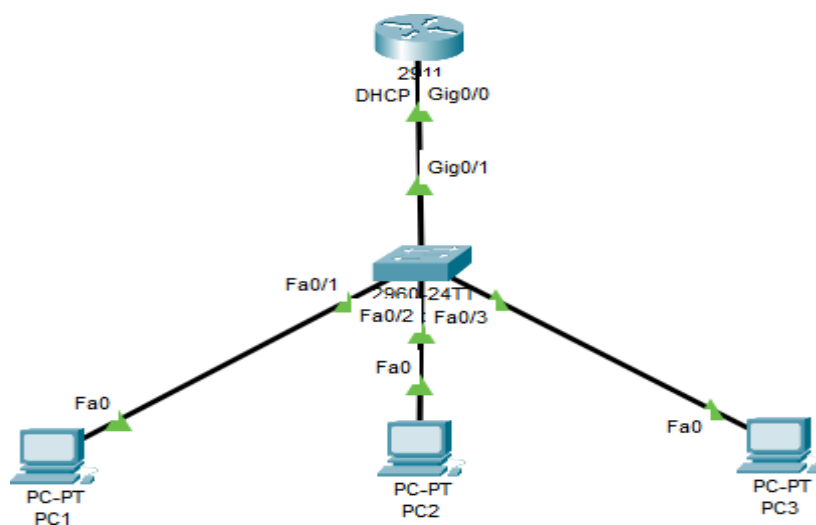
Using a DHCP server in your network, you will be able to automatically assign IP addresses depending on their physical or logical location. DHCP servers send the IP address, subnet mask, gateway, and DNS servers' configuration to the clients automatically.

Task 1: Create a Server-Client infrastructure for 10 users, of whom three are linked via IP devices and three are connected via workstations. [30 min].

Task 2: For server-client infrastructure, create a DHCP server to assign the IP Pool [192.168.1.1 - 192.168.1.254]. Verify the users IP information via DHCP.[30 min].

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Task 3: To use Ping commands to verify the connectivity of DHCP clients and the DHCP server and to trace the path. [10 min].

Task 4: Understand and explore PDUs and simulation scenarios [[15 min].

Submission Guidelines:

a) The assignment must be verified by the instructor during the lab (Submission on LMS will onlybe considered once the working topology on Packet Tracer is verified). Submit the .cpt file along with the details in word/pdf in zipped format on LMS within 4 days.

b) Zipped file must be saved as per the format RollNo_Lab# (Example: E21CSE632_Lab1).

c) Write name and enrolment number inside the assignment file. Without it, your submission won'tbe considered for evaluation.

d) Provide labels for IP addresses, cabling and devices.

e) Submit the assignment in your respective batch's submission link in LMS. Submission in otherbatch's submission portal will not be checked.

f) Late submission will lead to penalty.

g) Plagiarism will lead to negative grading.