

ACADEMIC TASK -2

CSE307

(INTERNETWORKING ESSENTIALS)

COMPUTER SCIENCE AND ENGINEERING



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ACKNOWLEDGEMENT

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Thank you to everyone who played a role in making this project a success.

Vikas Pal

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AFTER MID TERM

Now you need to reassign the IP addressing to all the buildings as per the requirement given above using FLSM where network address is 174.0.0.0.

Implement the same networks with additional services. Below are the requirements and guidelines for the network design:

Additional Network Services:

IP Addressing:

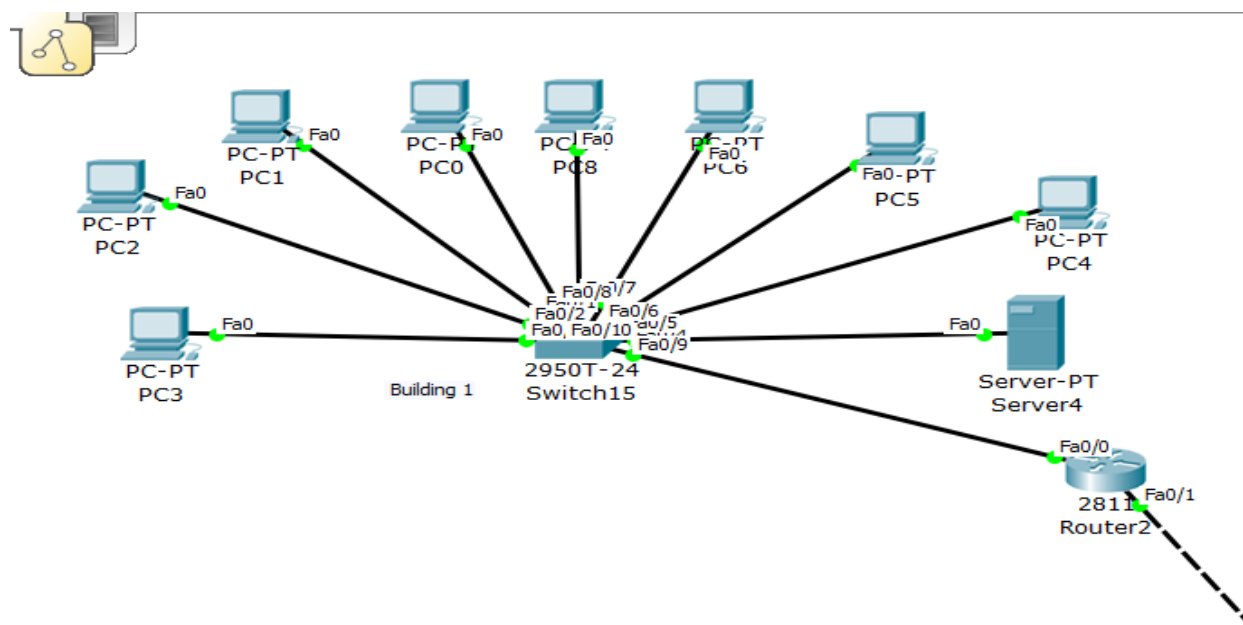
- Plan and assign IPv4 or IPv6 addresses for all devices on each building.
- Ensure that each building has its own subnet.
- Calculate the required subnets based on the number of devices and assign appropriate subnet masks.

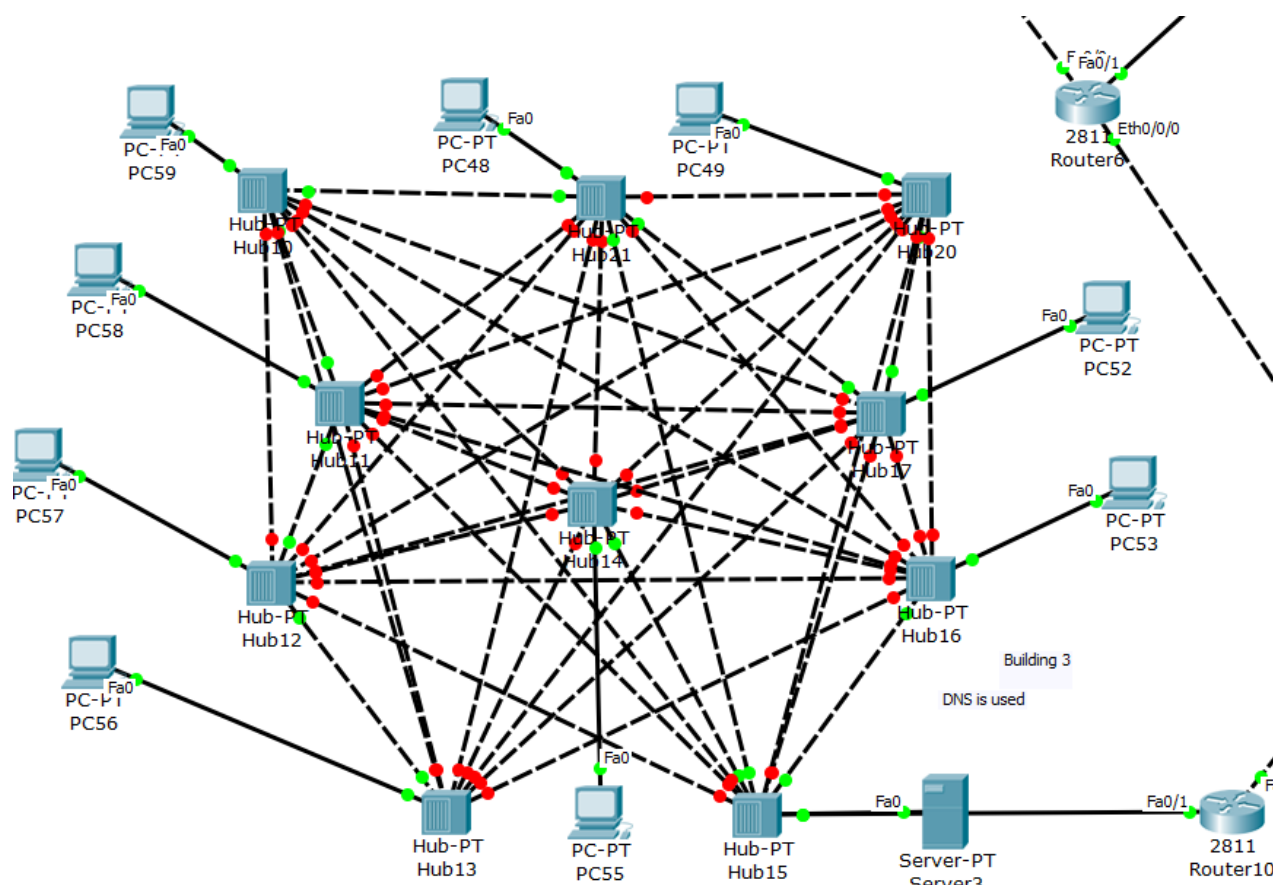
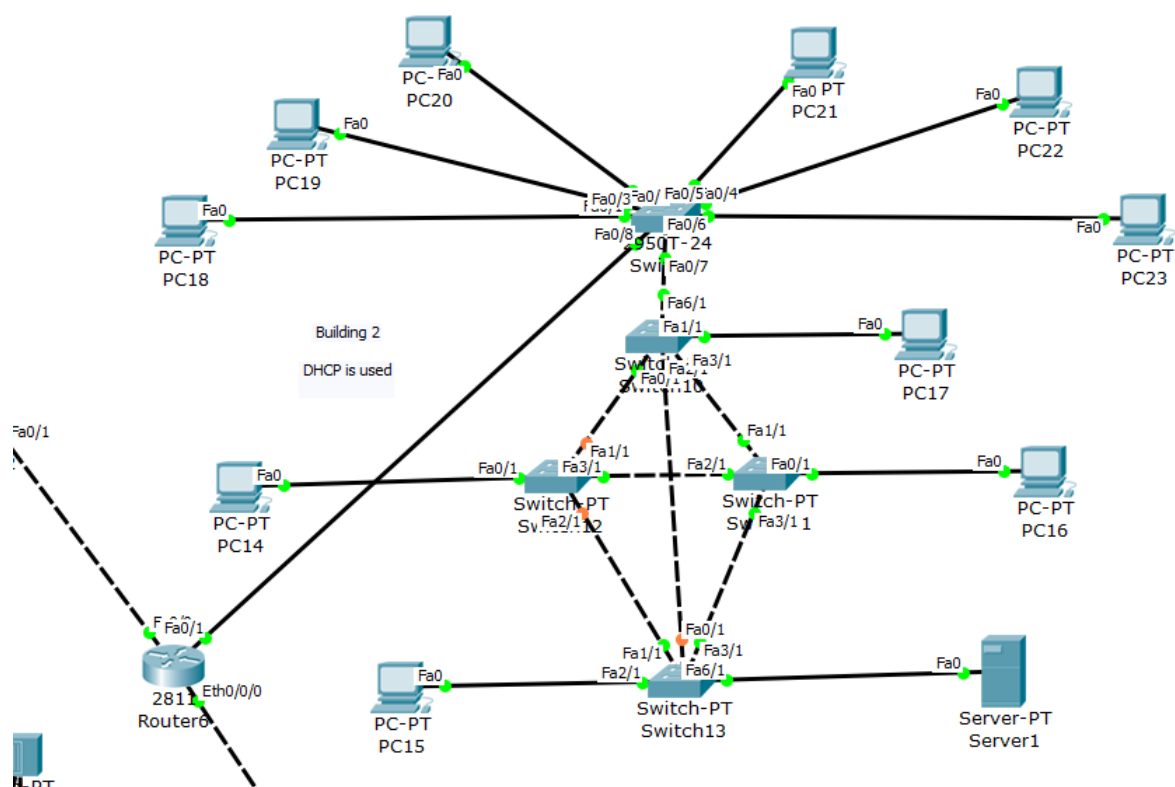
Server Configuration:

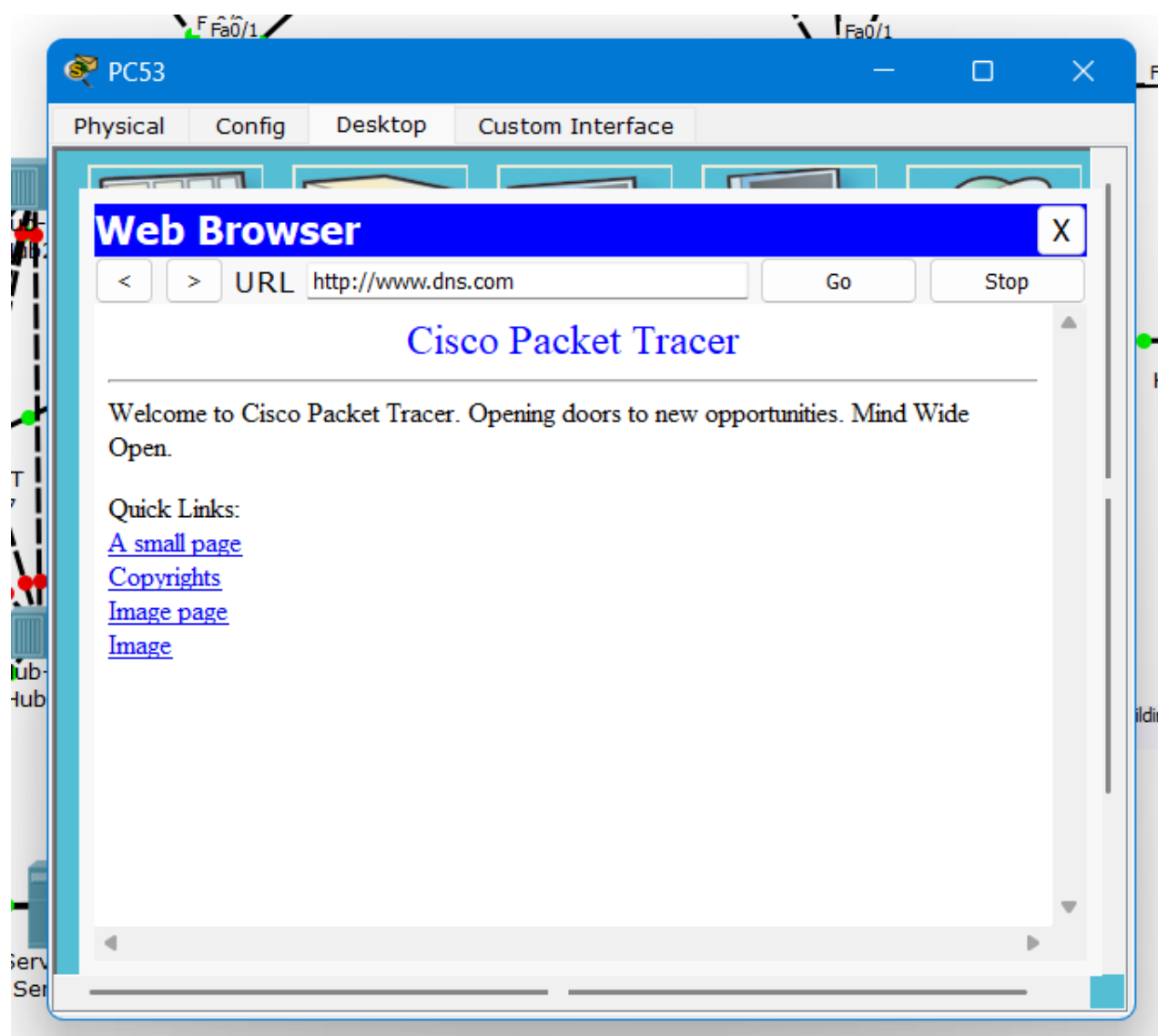
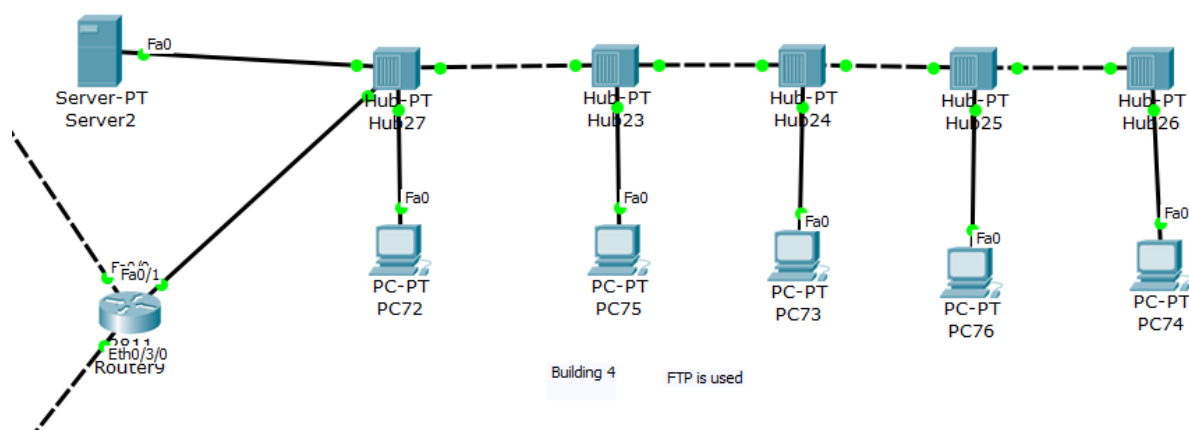
- A **Web server** is placed on the **1st Building**.
- A **DHCP server** is placed on the **2nd Building**.
- A **DNS server** is placed on the **3rd Building**.
- A **FTP** is placed on the **4th Building**.

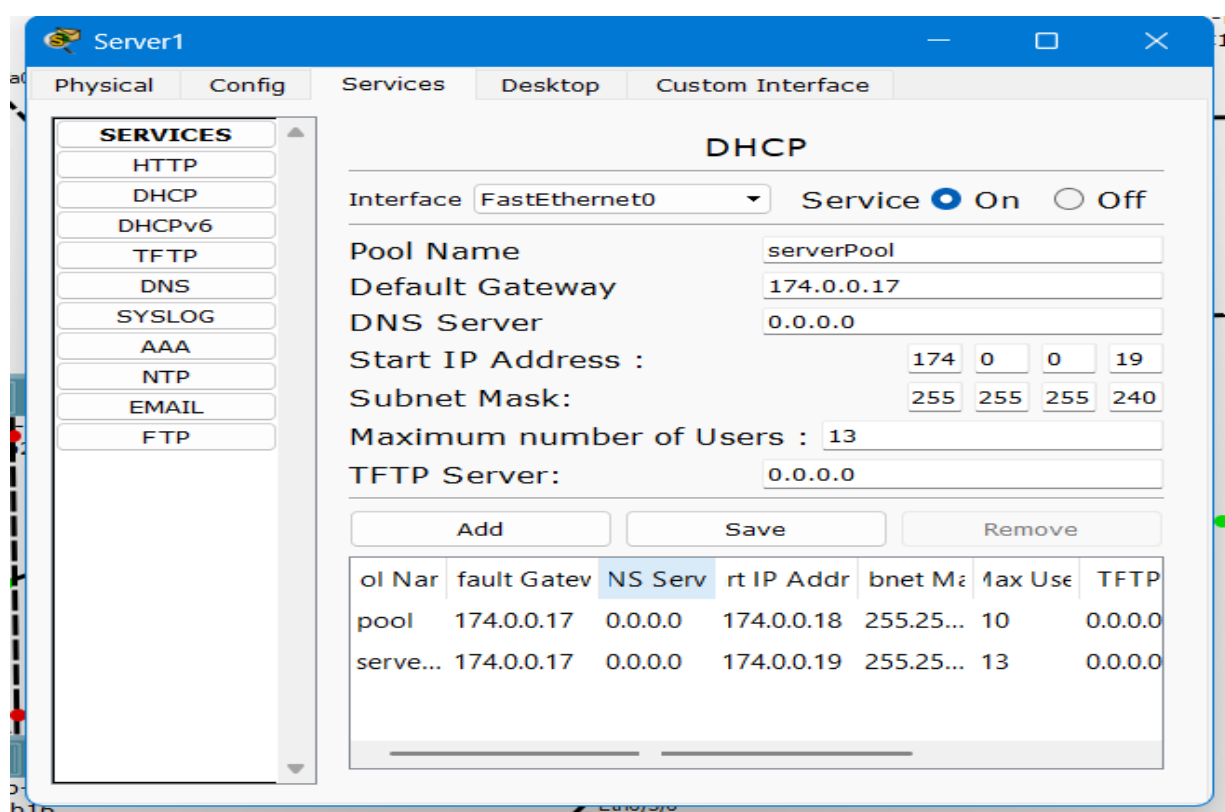
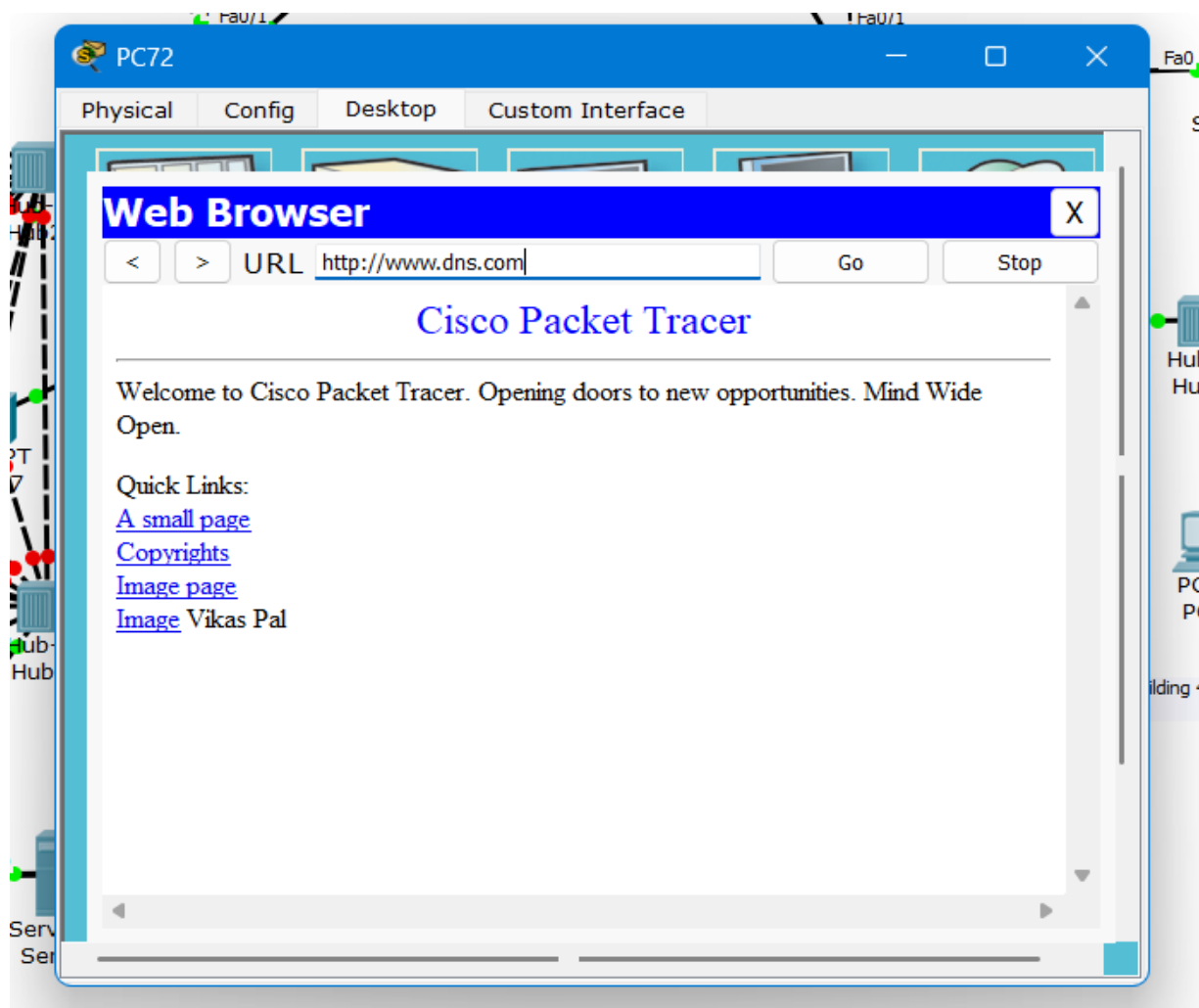
Git Hub Link: <https://github.com/njcdnlc/networklab.git>

OVERVIEW









1. DHCP (Dynamic Host Configuration Protocol)

Objective: Automatically assign IP addresses to client devices.

Steps to Implement DHCP:

1. **Place a Server** on the workspace.
2. **Assign a Static IP Address** to the server (e.g., 192.168.1.2).
3. Click the **Server** → **Services** → **DHCP** tab.
4. Turn **DHCP ON**.

2. DNS (Domain Name System)

Objective: Resolve domain names into IP addresses.

Steps to Implement DNS:

1. Use the **same server** or another dedicated server.
2. Assign it a **static IP** (e.g., 192.168.1.3).
3. Go to **Server** → **Services** → **DNS** tab.
4. Turn **DNS ON**.

3. HTTP (Web Server)

Objective: Host a website accessible by domain name or IP.

Steps to Implement HTTP:

1. Place another **Server** or use the existing one.
2. Assign a **static IP address** (e.g., 192.168.1.4).
3. Go to **Server** → **Services** → **HTTP** tab.
4. Turn **HTTP ON**.