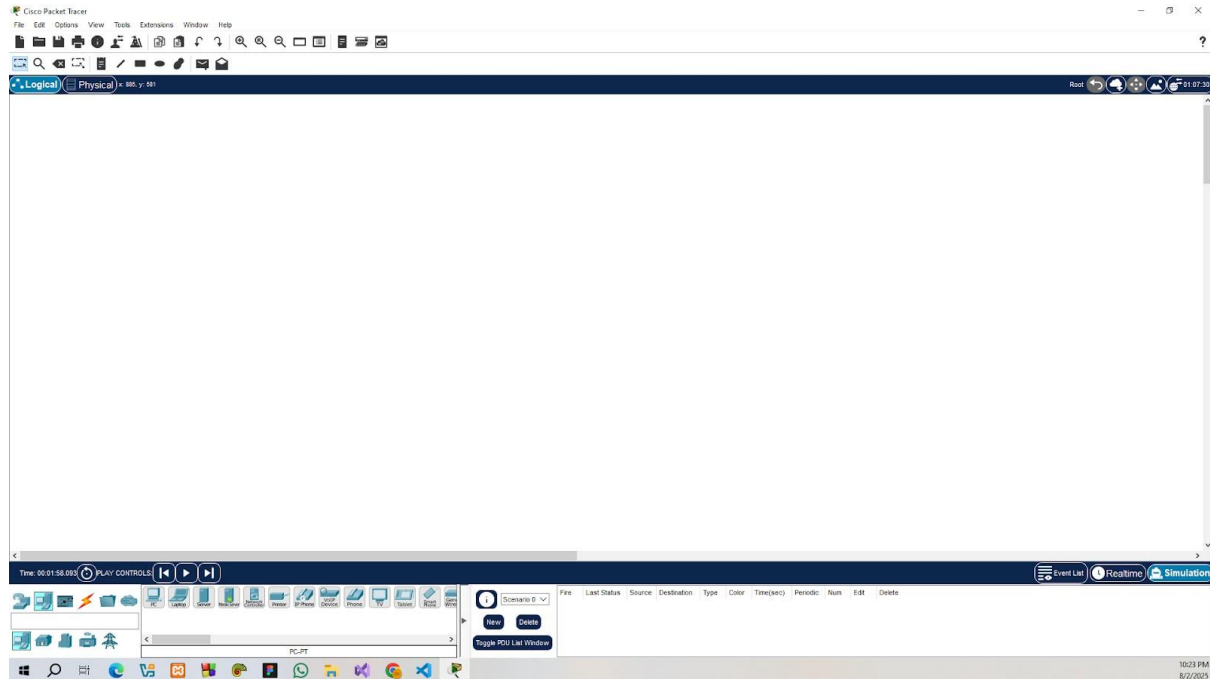


Experiment Name: DHCP, DNS and HTTP Server configuration

Devices and Component List: Device name Cisco Packet Tracer

Step 1: First of all, start Cisco Packet Tracer

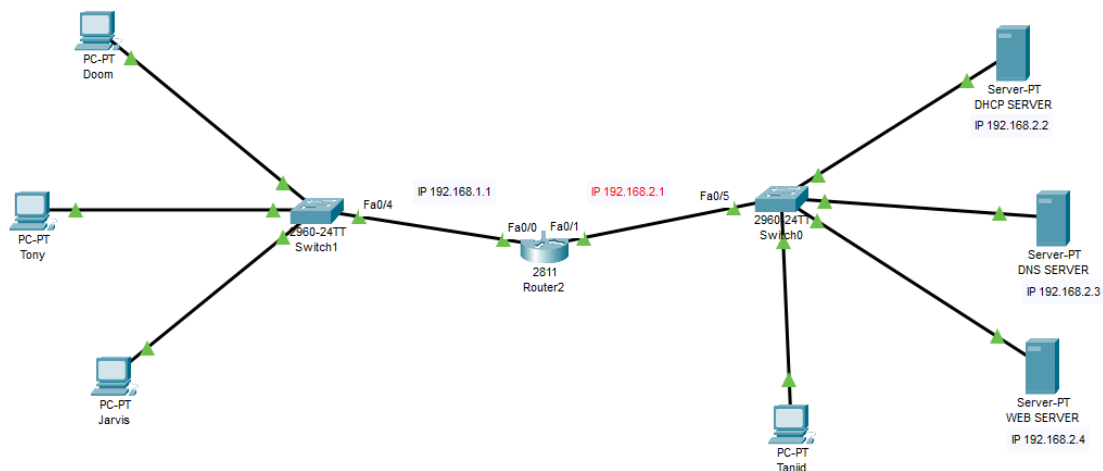


Step 2 : Before setting up the network layout, it's important to first decide which devices (like routers, switches, and end-user equipment) to use and determine how they will be connected. This selection process ensures the network will function effectively once built.

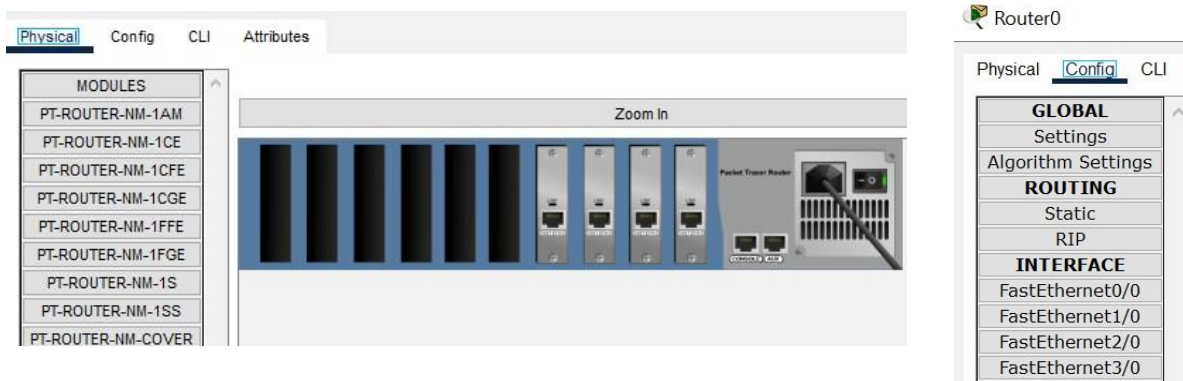
We will use **Switches, Connections, Devices (PC), and Routers.**



Step 3: Creating the network by connecting all required devices.



Step 4: Setting up the router's port in Physical mode. After setting up the router port, configure the router in the CLI by giving some command. Which are shown below. As our network has only two Ethernet ports, we will only configure the ports fa0/0 & fa1/0.



Step 5: I have written the code to configure the Router.

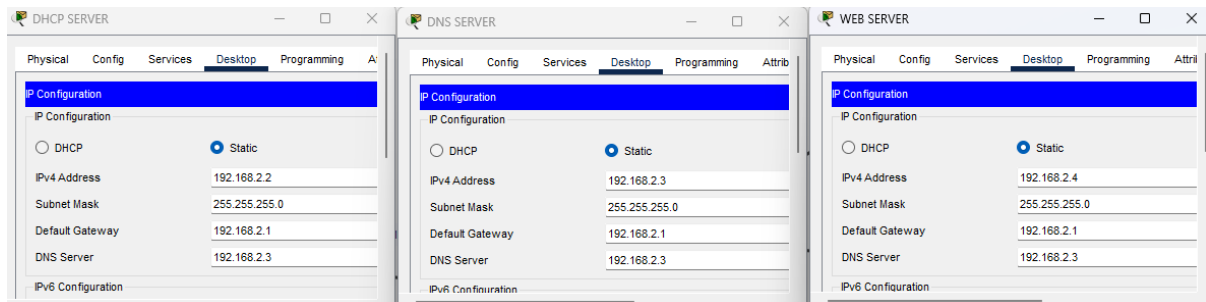
My FastEthernet 1/0	My FastEthernet 0/0
<pre>conf t int f0/0 ip add 192.168.1.1 255.255.255.0 no sh</pre>	<pre>conf t int f0/1 ip add 192.168.2.1 255.255.255.0 no sh</pre>

When I use this above comand:

```
Router(config)#interface FastEthernet0/0
Router(config-if)#no ip address
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
```

```
Router(config)#interface FastEthernet0/1
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
```

Step 6: Assign a unique IP address, subnet masks, and a default gateway to each Server in the network.

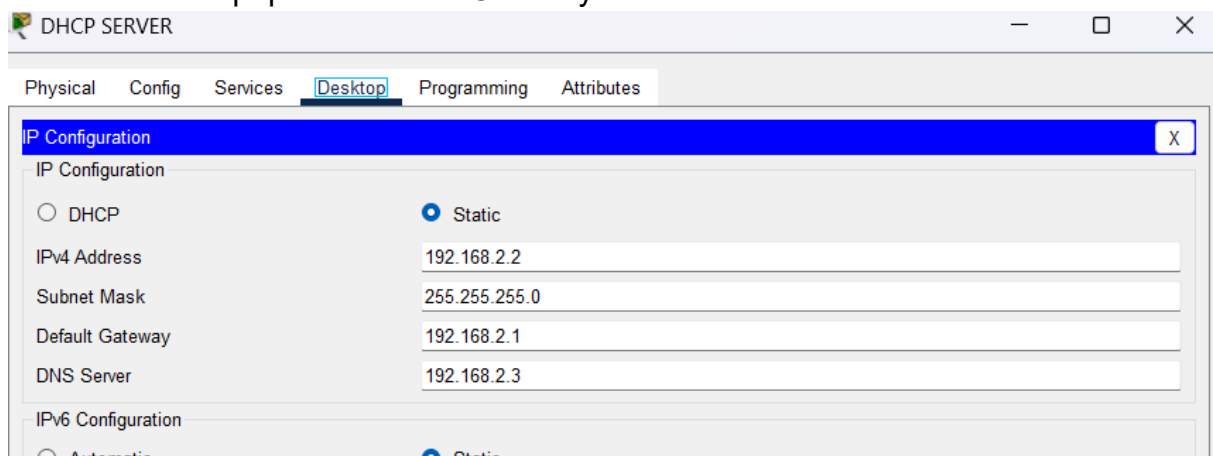


IP addresses I assigned for Server's are:

DHCP SERVER: <u>Turn On DHCP</u> IP: 192.168.2.2 Subnet mask: 255.255.255.0 Default gateway: 192.168.2.1 Dns: 192.168.2.3	DNS SERVER: <u>Turn On DNS</u> IP: 192.168.2.3 Subnet mask: 255.255.255.0 Default gateway: 192.168.2.1 Dns: 192.168.2.3	WEB SERVER: <u>Turn On HTTP</u> IP: 192.168.2.4 Subnet mask: 255.255.255.0 Default gateway: 192.168.2.1 Dns: 192.168.2.3
--	--	--

DHCP SERVER Configurations:

1. Make sure Setup Ip and Default Gateway:



2. Now Go to Services and Select DHCP:

The screenshot shows the 'DHCP SERVER' configuration window. The 'Services' tab is active, and 'DHCP' is selected in the left-hand 'SERVICES' list. The main configuration area for DHCP is displayed, showing settings for the 'FastEthernet0' interface. The 'Service' is set to 'On'. The 'Pool Name' is 'serverPool'. The 'Default Gateway' is '192.168.2.1'. The 'DNS Server' is '192.168.2.3'. The 'Start IP Address' is '192.168.2.10' (split into four fields: 192, 168, 2, 10). The 'Subnet Mask' is '255.255.255.0' (split into four fields: 255, 255, 255, 0). The 'Maximum Number of Users' is '50'. The 'TFTP Server' is '0.0.0.0'. The 'WLC Address' is '0.0.0.0'. Below the configuration fields are 'Add', 'Save', and 'Remove' buttons. At the bottom, a table lists the configured DHCP pools.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool1	192.168.1.1	192.168.2.3	192.168.1.10	255.255.2...	50	0.0.0.0	0.0.0.0
serverPool	192.168.2.1	192.168.2.3	192.168.2.10	255.255.2...	50	0.0.0.0	0.0.0.0

3. Now Make two different serverPool. First Server Pool will be for default GateWay:

This screenshot shows the configuration fields for a new DHCP server pool. The 'Interface' is 'FastEthernet0' and 'Service' is 'On'. The 'Pool Name' is 'serverPool'. The 'Default Gateway' is '192.168.2.1'. The 'DNS Server' is '192.168.2.3'. The 'Start IP Address' is '192.168.2.10' (split into four fields: 192, 168, 2, 10). The 'Subnet Mask' is '255.255.255.0' (split into four fields: 255, 255, 255, 0). The 'Maximum Number of Users' is '50'. The 'TFTP Server' is '0.0.0.0'. The 'WLC Address' is '0.0.0.0'.

And Second would be for Router Gateway Ip:

Interface	FastEthernet0	Service	<input checked="" type="radio"/> On	<input type="radio"/> Off
Pool Name	serverPool1			
Default Gateway	192.168.1.1			
DNS Server	192.168.2.3			
Start IP Address :	192	168	1	10
Subnet Mask:	255	255	255	0
Maximum Number of Users :	50			
TFTP Server:	0.0.0.0			
WLC Address:	0.0.0.0			

DNS SERVER Configuration:

1. Make Sure Ip and default gateway setup successfully

The screenshot shows the 'DNS SERVER' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is expanded, showing the following settings:

- ☐ DHCP
- ☒ Static
- IPv4 Address: 192.168.2.3
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.2.1
- DNS Server: 192.168.2.3

2. Now Go To Services and Select **DNS** and Turn On the **DNS** Service:

The screenshot shows the 'DNS SERVER' configuration window with the 'Services' tab selected. The 'DNS' service is listed in the left sidebar and is currently selected. The main area shows the 'DNS' configuration:

- DNS Service:** ☒ On ☐ Off
- Resource Records:**
 - Name:
 - Type:
 - Address:
- Buttons: Add, Save, Remove
- Table:**

No.	Name	Type	Detail
0	tanjid	CNAME	www.tanjid.com
1	www.tanjid.com	A Record	192.168.2.4

3. Now Add Entries I create Two Entries:

First:

- **Name:** www.tanjidnafis.com
- **Address:** 192.168.1.2
- **Record Type:** A

DNS Service		<input checked="" type="radio"/> On	<input type="radio"/> Off
Resource Records			
Name	<input type="text" value="www.tanjid.com"/>	Type	<input type="text" value="A Record"/>
Address	<input type="text" value="192.168.2.4"/>		
<input type="button" value="Add"/>		<input type="button" value="Save"/>	<input type="button" value="Remove"/>

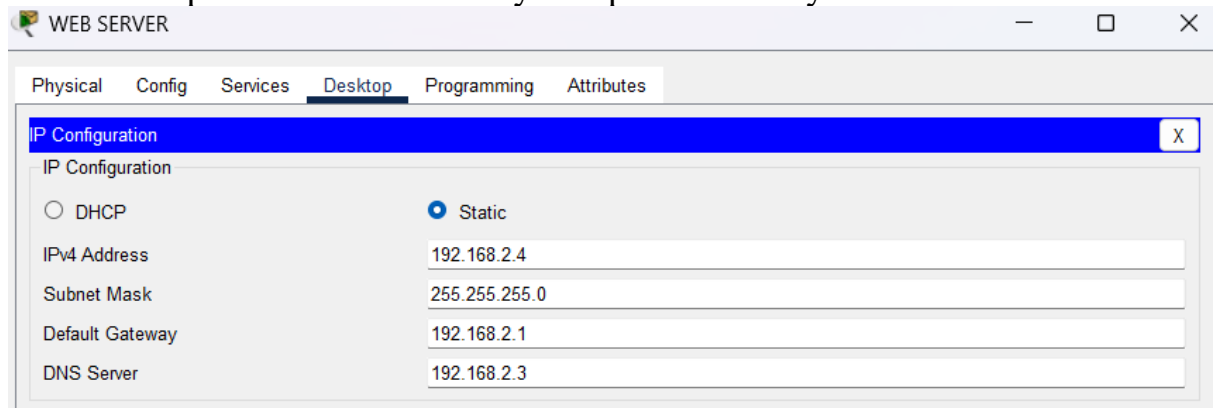
Second:

- **Name:** tanjid
- **Host Name:** www.tanjid.com
- **Record Type:** CNAME

DNS Service		<input checked="" type="radio"/> On	<input type="radio"/> Off
Resource Records			
Name	<input type="text" value="tanjid"/>	Type	<input type="text" value="CNAME"/>
Host Name	<input type="text" value="www.tanjid.com"/>		

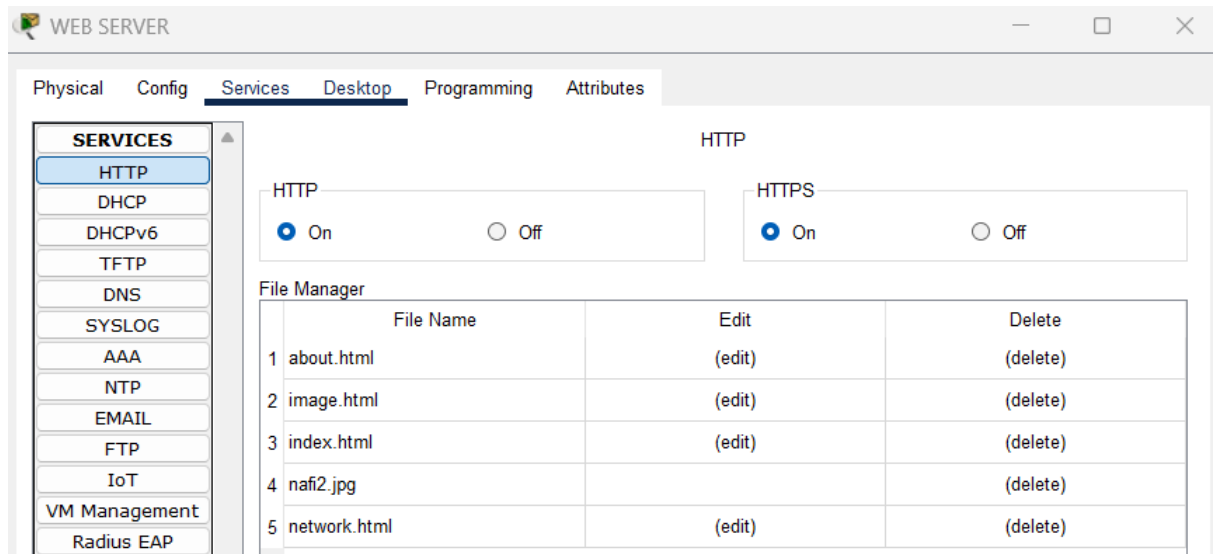
WEB SERVER Configurations:

1. Make sure Ip and Default Gateway Setup Successfully



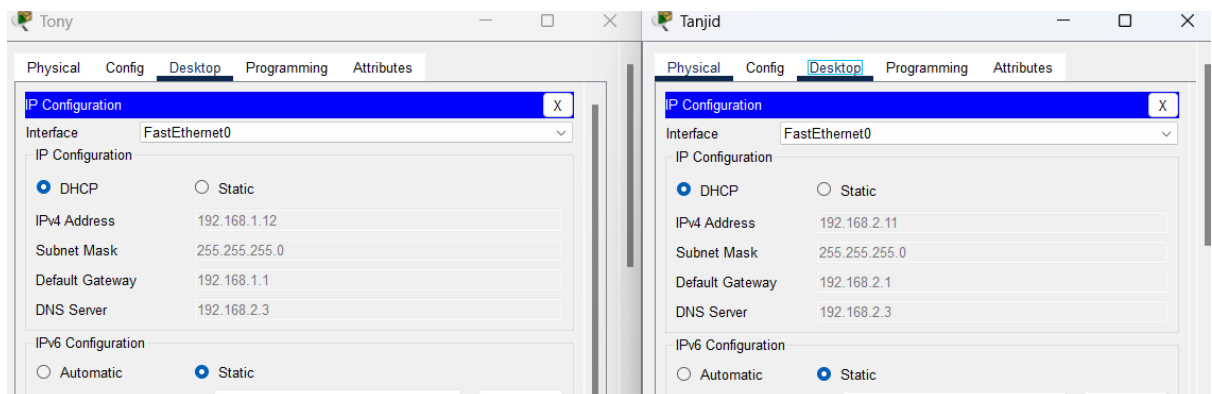
The screenshot shows a window titled "WEB SERVER" with several tabs: Physical, Config, Services, Desktop (selected), Programming, and Attributes. The "IP Configuration" window is open, showing the "IP Configuration" section. It has two radio buttons: "DHCP" (unselected) and "Static" (selected). Below the radio buttons, there are four text input fields: "IPv4 Address" with the value "192.168.2.4", "Subnet Mask" with the value "255.255.255.0", "Default Gateway" with the value "192.168.2.1", and "DNS Server" with the value "192.168.2.3".

2. Now Go To Service and Select HTTP



- Now we can use custom page like I make (e.g: index.html, about.html) and save it.

Step 7. We testing from the PC to DHCP. Here we just enable DHCP to static to gain automatic ip address.



- Now we Go to web Browser
Here we can access out http server by three ways:
Just write CNAME : Tanjid
Domain name: www.tanjid.com
And IP address: 192.168.2.4

The results:

