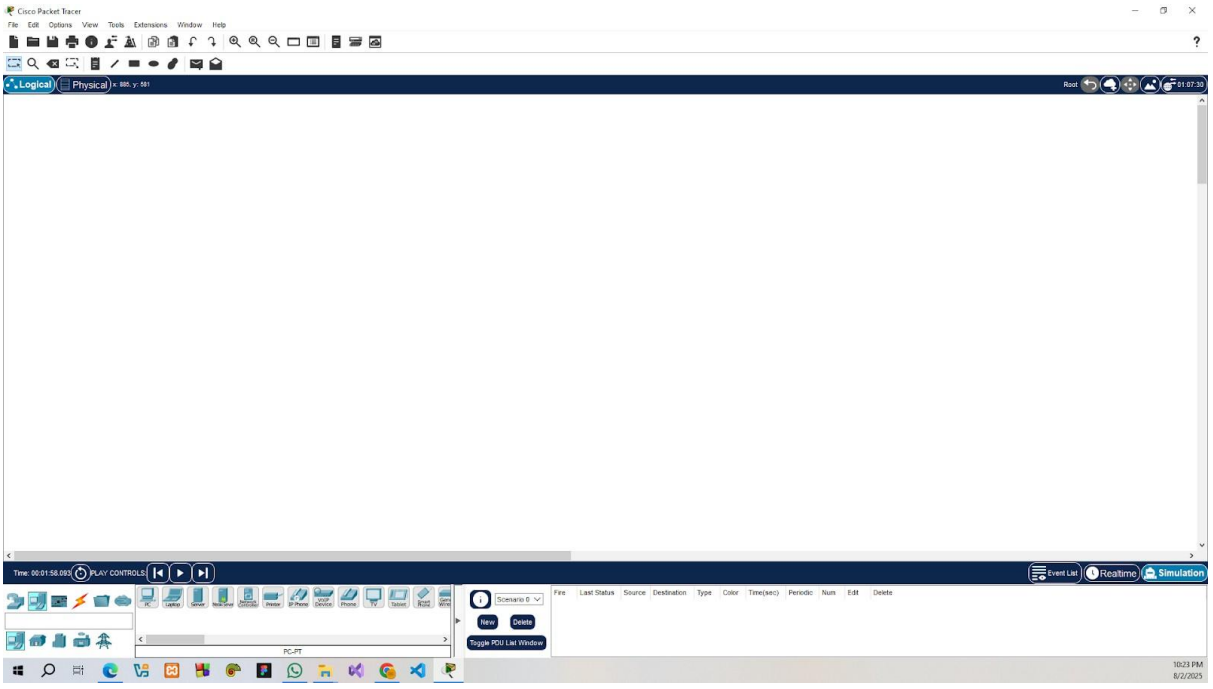
**Experiment Name:** DHCP, DNS and HTTP Server configuration

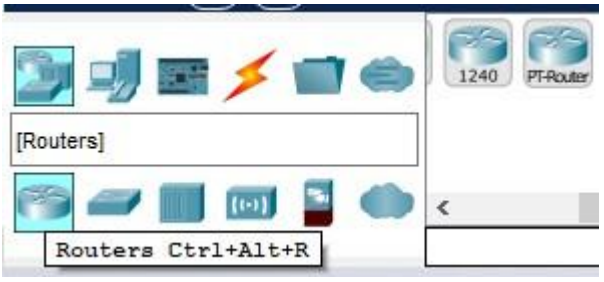
**Devices and Component List:** Device name Cisco Packet Tracer

**Step 1:** First of all, start Cisco Packet Tracer



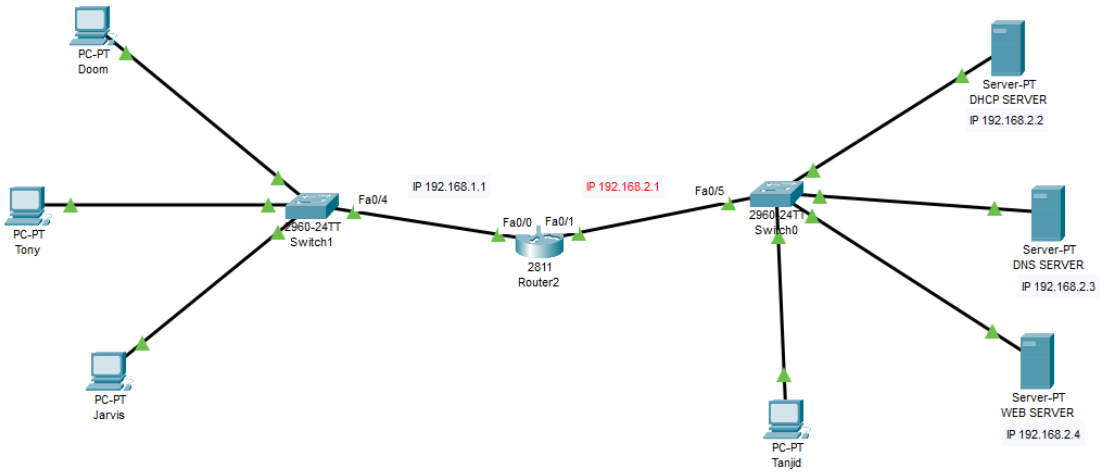
**Step 2** : Before setting up the network layout, it's important to first decide which devices (like routers, switches, and end-user equipment) to use and determine how they will be connected. This selection process ensures the network will function effectively once built.

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

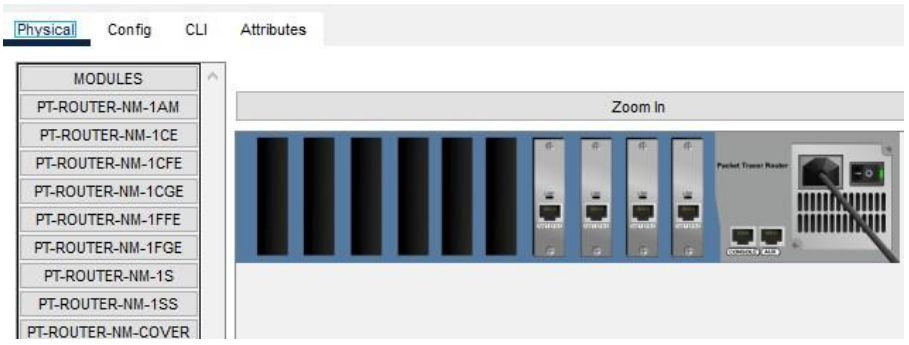



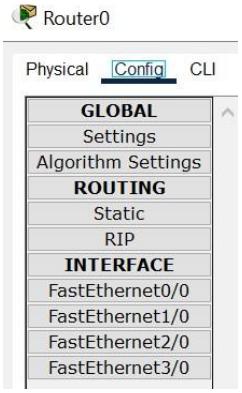


**Step 3:** Creating the network by connecting all required devices.




**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.

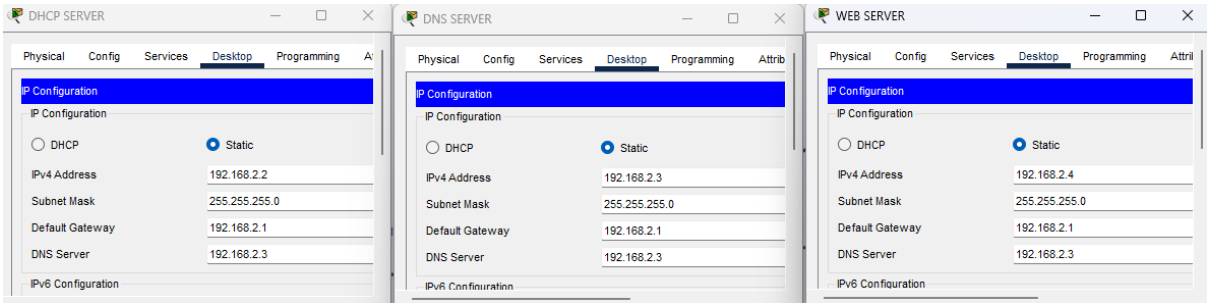
| My FastEthernet 1/0 | My FastEthernet 0/0 |
|---|---|
| conf t<br>int f0/0<br>ip add 192.168.1.1 255.255.255.0<br>no sh | conf t<br>int f0/1<br>ip add 192.168.2.1 255.255.255.0<br>no sh |

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.

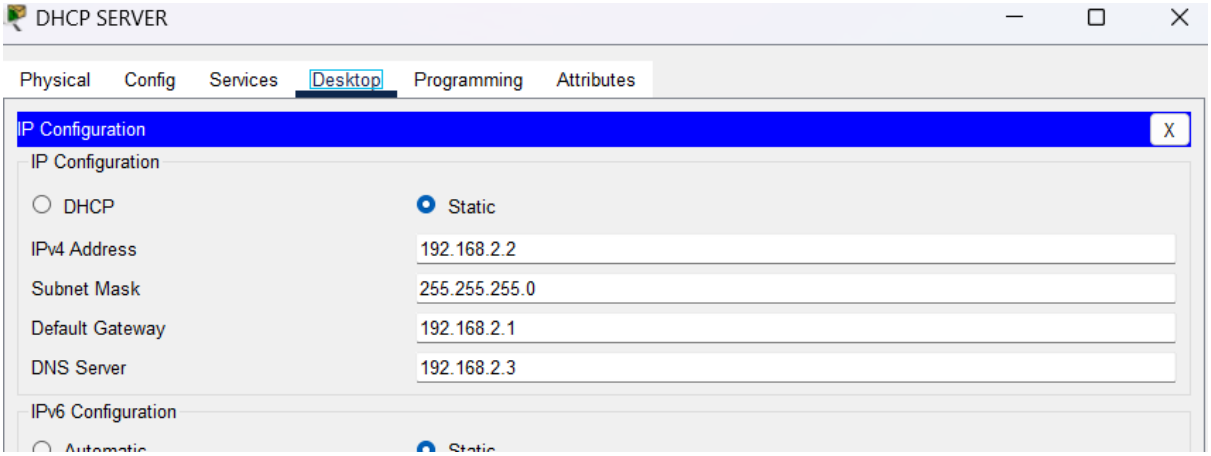



IP addresses I assigned for Server's are:

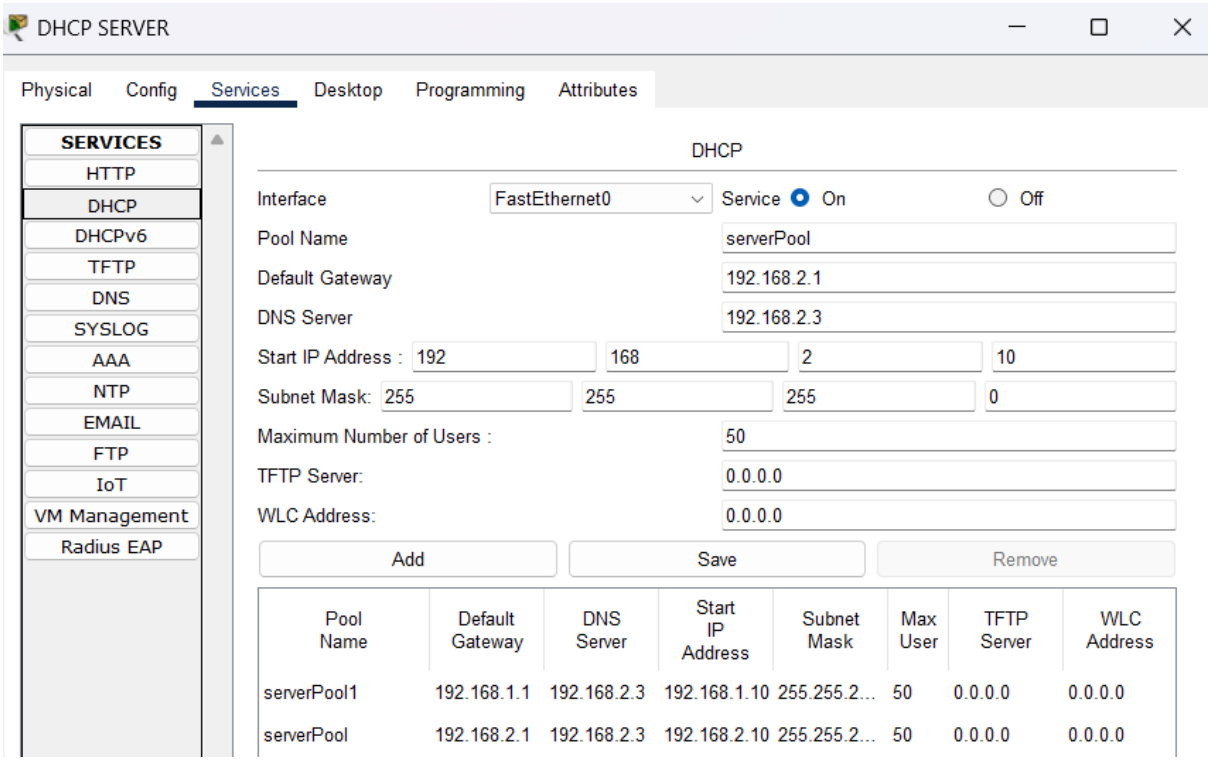
| DHCP SERVER: | DNS SERVER: | WEB SERVER: |
|---|---|---|
| **Turn On DHCP** | **Turn On DNS** | **Turn On HTTP** |
| IP: **192.168.2.2** | IP: **192.168.2.3** | IP: **192.168.2.4** |
| Subnet mask: **255.255.255.0** | Subnet mask: **255.255.255.0** | Subnet mask: **255.255.255.0** |
| Default gateway: **192.168.2.1** | Default gateway: **192.168.2.1** | Default gateway: **192.168.2.1** |
| Dns; 192.168.2.3 | Dns: 192.168.2.3 | Dns**: 192.168.23** |

**DHCP SERVER** Configurations:

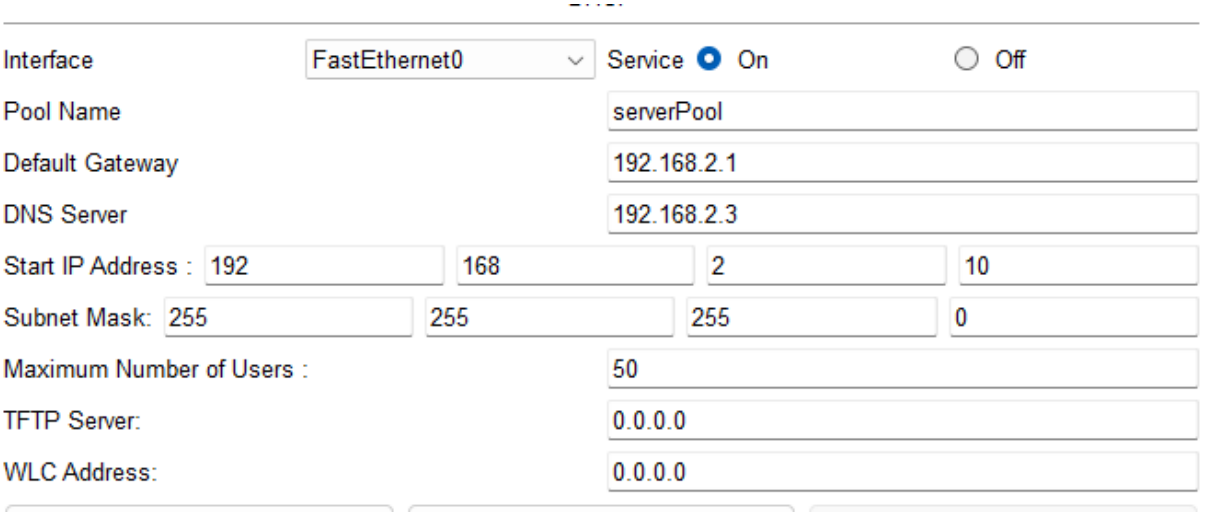
1. Make sure Setup Ip and Default Gateway:



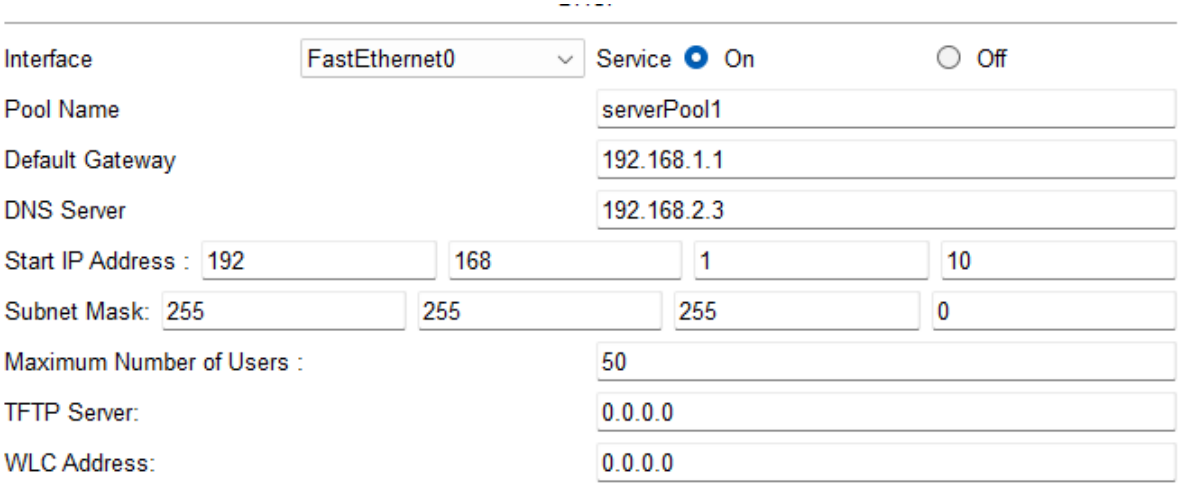
2. Now Go to Services and Select DHCP:




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

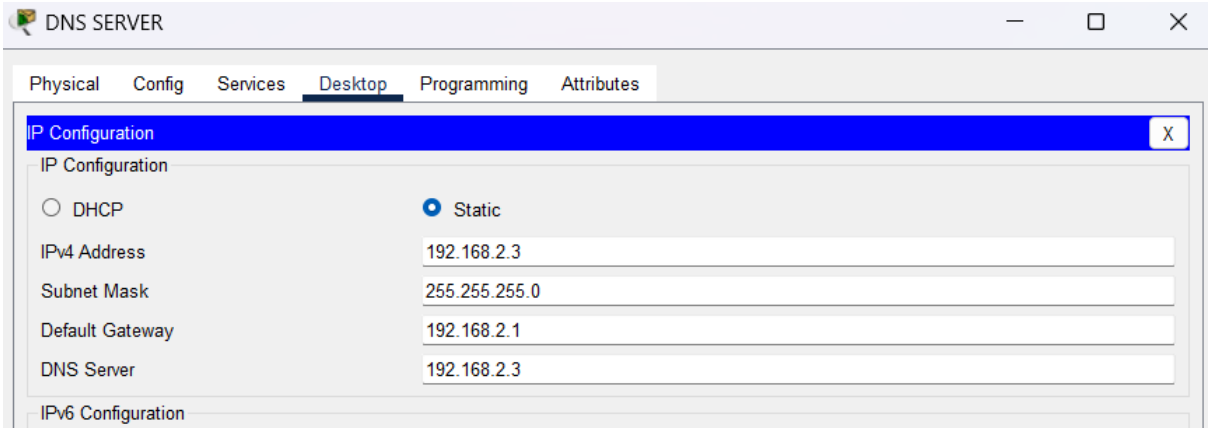



And Second would be for Router Gateway Ip:

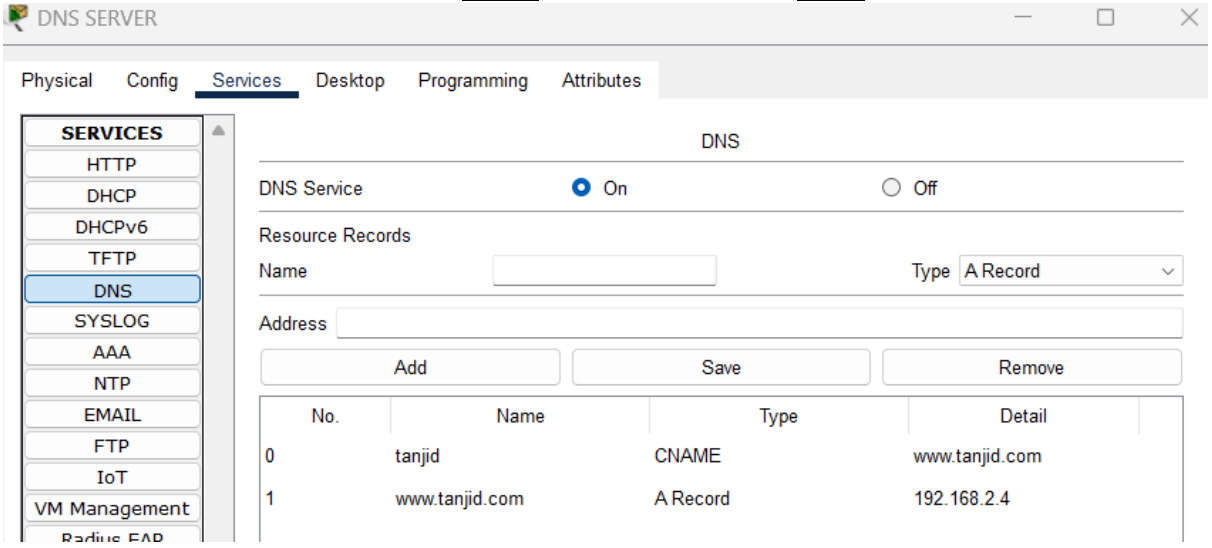



## **DNS SERVER** Configuration:

1. Make Sure Ip and default gateway setup successfully



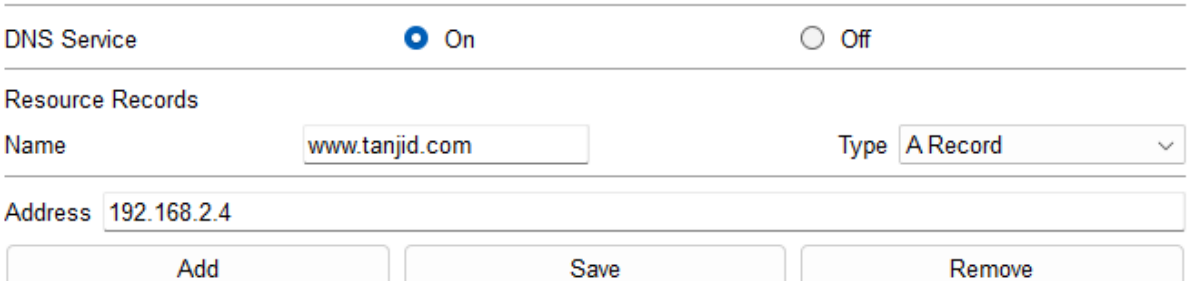

2. Now Go To Services and Select **DNS** and Turn On the **DNS** Service:




3. Now Add Entries I create Two Entries:

First:

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

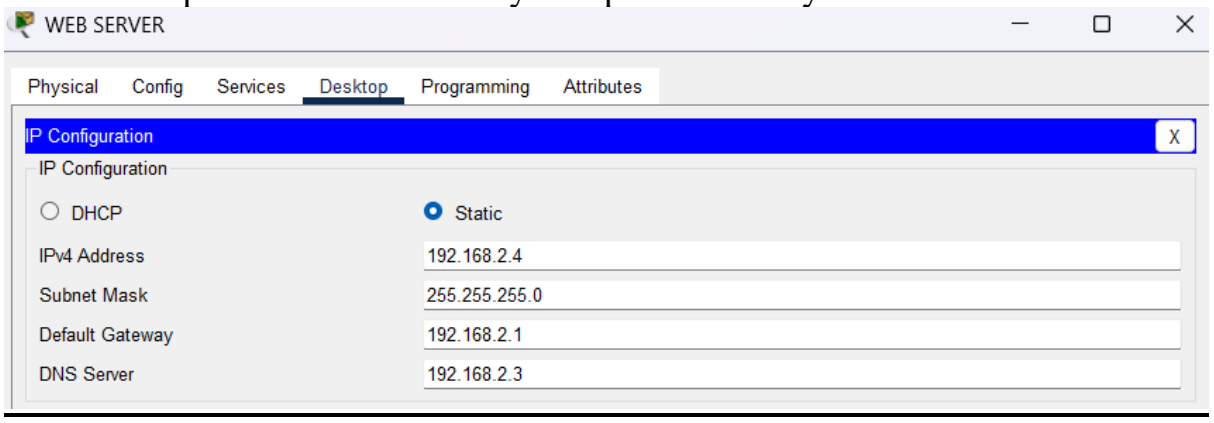



Second:

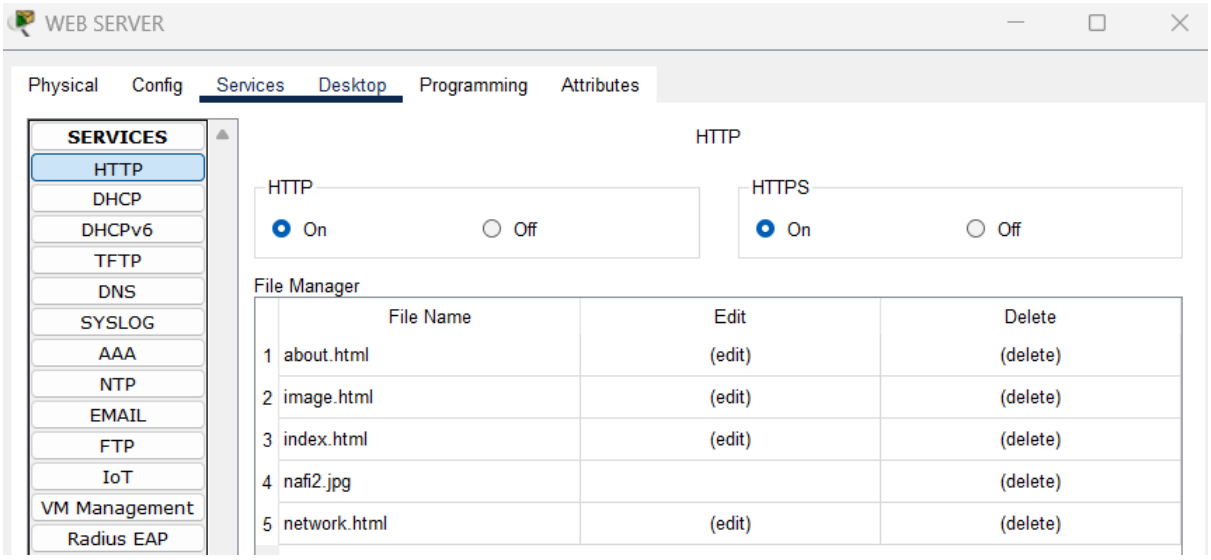
- **Name:** tanjid
- **Host Name:** `www.tanjid.com`
- **Record Type:** `CNAME`


## **WEB SERVER** Configurations:

1. Make sure Ip and Default Gateway Setup Successfully

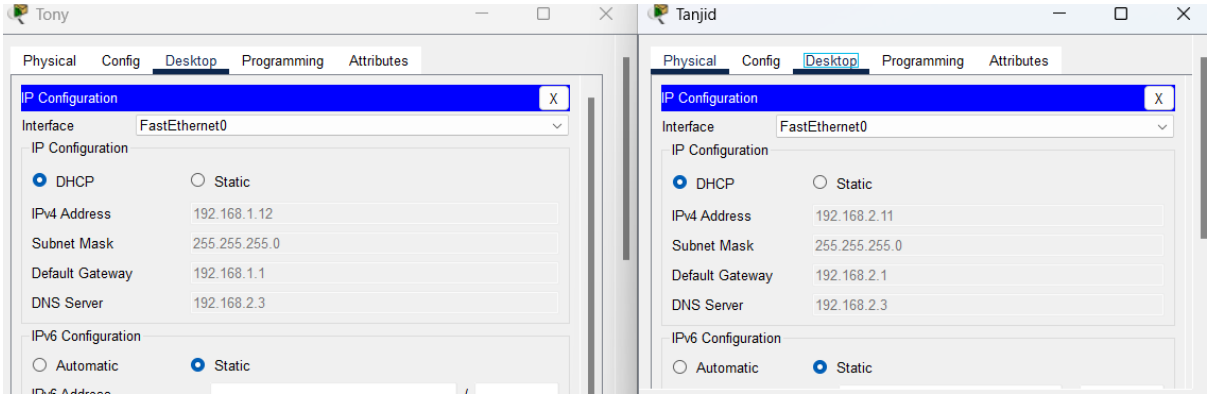



2. Now Go To Service and Select **HTTP**



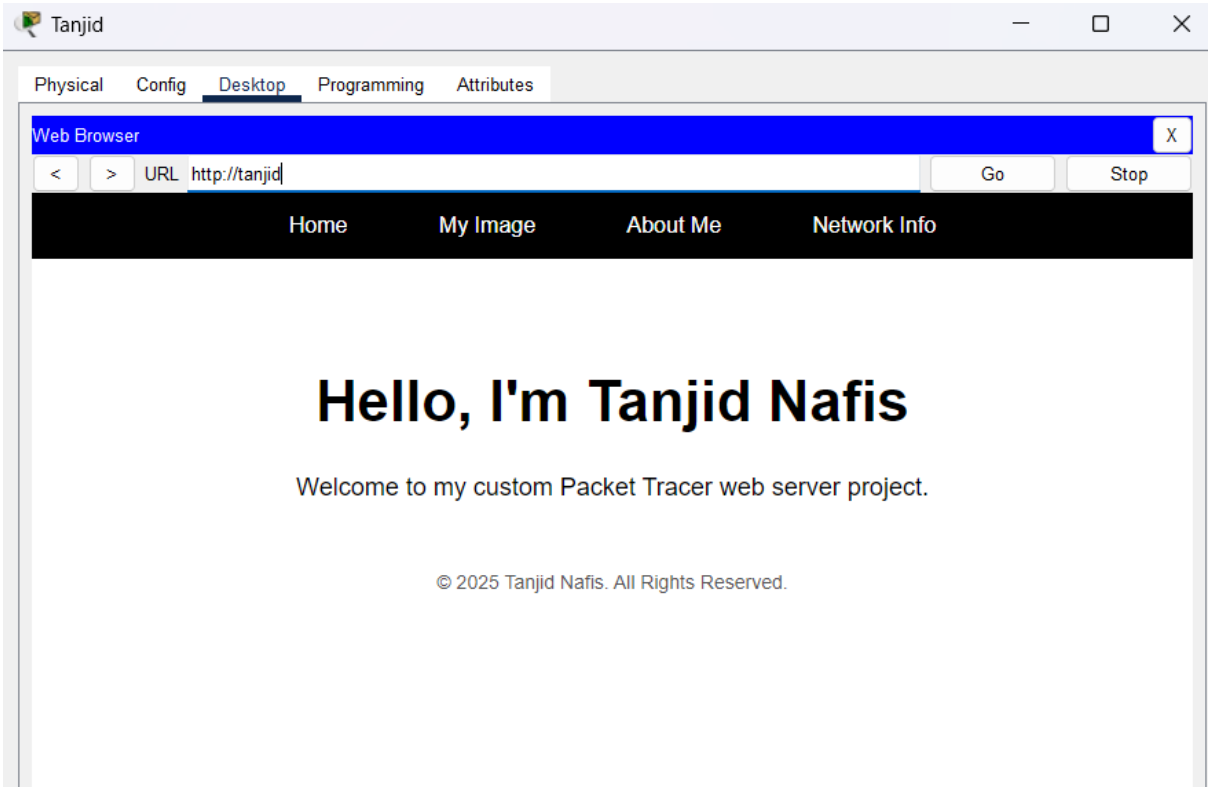

3. Now we can use custom page like I make (e.g: index.html, about.html) and save it.

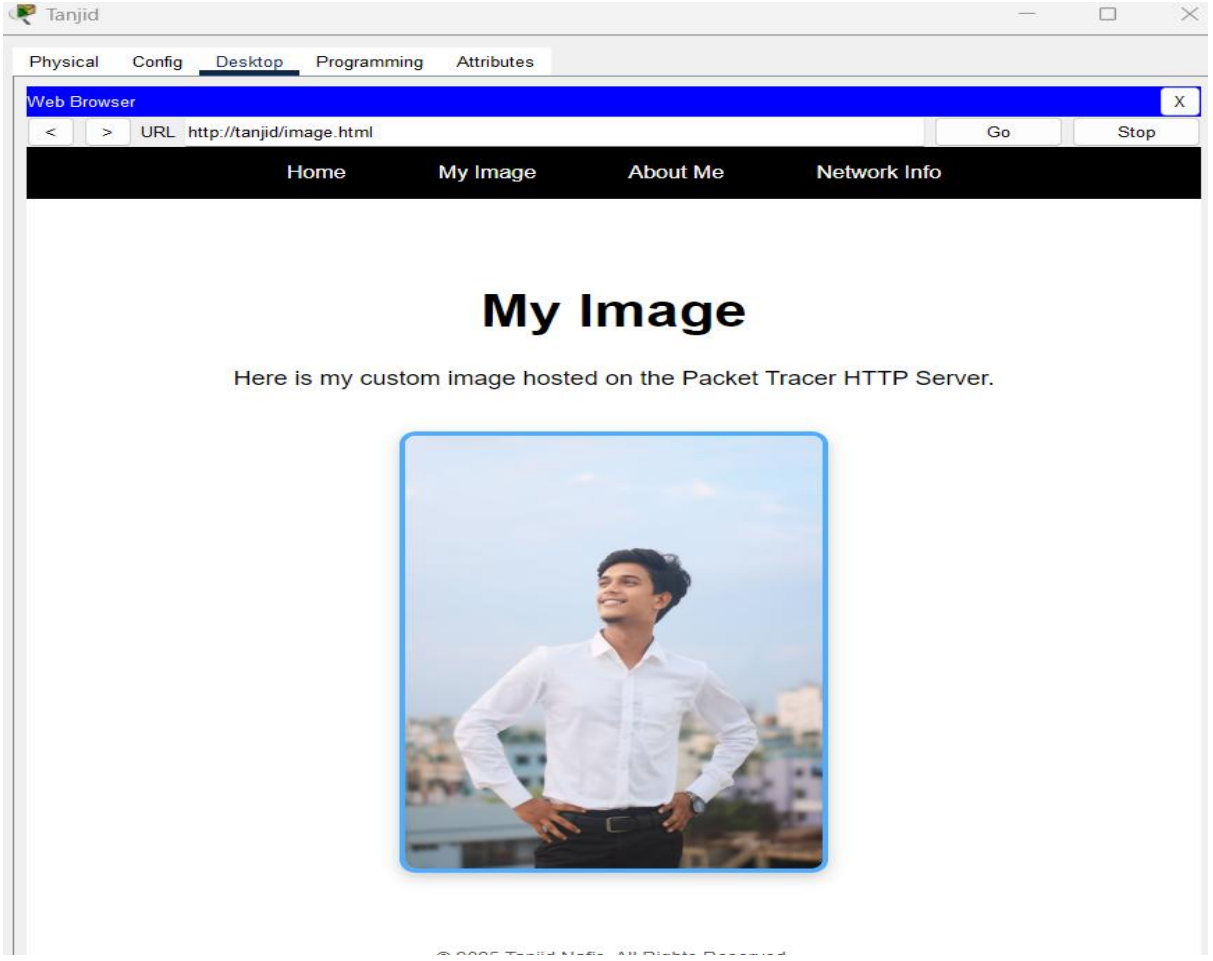
**Step 7**. We testing from the PC to DHCP. Here we just enable DHCP to static to gain automatic ip address.

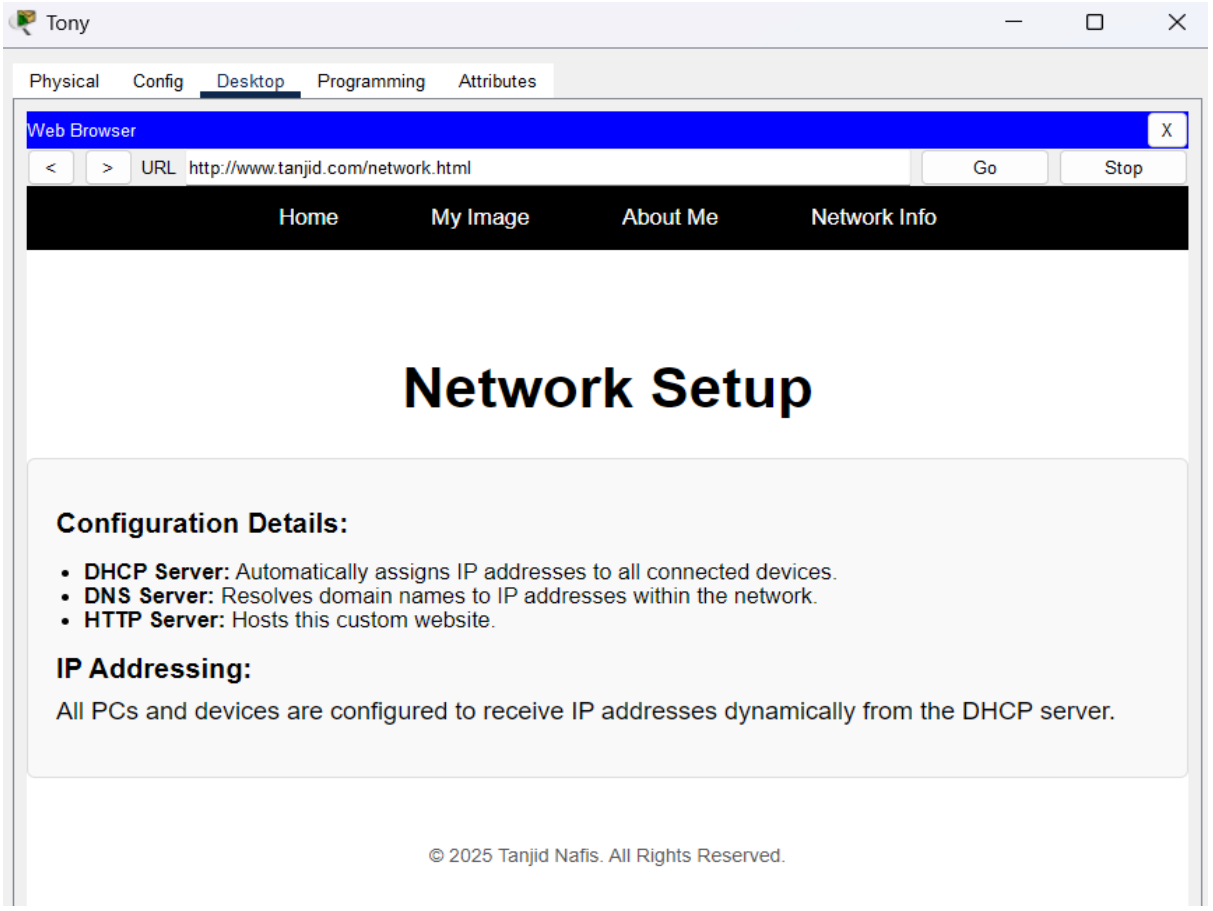



1. Now we Go to web Browser
   Here we can access out http server by three ways:
   Just write CNAME : Tanjid
   Domain name: www.tanjid.com
   And IP address: 192.168.2.4

The results:


Tanjid
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://tanjid
Go
Stop
Home
My Image
About Me
Network Info
Hello, I'm Tanjid Nafis
Welcome to my custom Packet Tracer web server project.
© 2025 Tanjid Nafis. All Rights Reserved.


Tanjid
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://tanjid/image.html
Go
Stop
Home
My Image
About Me
Network Info
My Image
Here is my custom image hosted on the Packet Tracer HTTP Server.


Tony
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://www.tanjid.com/network.html
Go
Stop
Home
My Image
About Me
Network Info
Network Setup
Configuration Details:
DHCP Server: Automatically assigns IP addresses to all connected devices.
DNS Server: Resolves domain names to IP addresses within the network.
HTTP Server: Hosts this custom website.
IP Addressing:
All PCs and devices are configured to receive IP addresses dynamically from the DHCP server.
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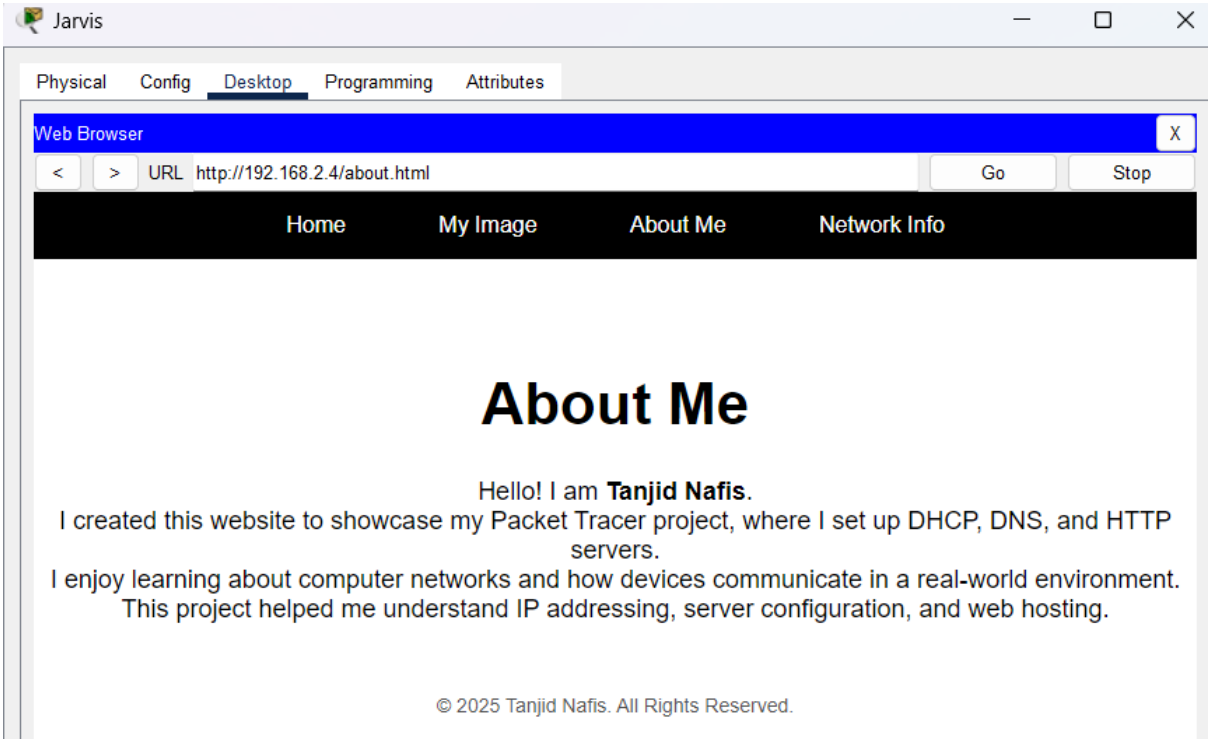
Jarvis
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://192.168.2.4/about.html
Go
Stop
Home
My Image
About Me
Network Info
About Me
Hello! I am Tanjid Nafis.
I created this website to showcase my Packet Tracer project, where I set up DHCP, DNS, and HTTP servers.
I enjoy learning about computer networks and how devices communicate in a real-world environment.
This project helped me understand IP addressing, server configuration, and web hosting.
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