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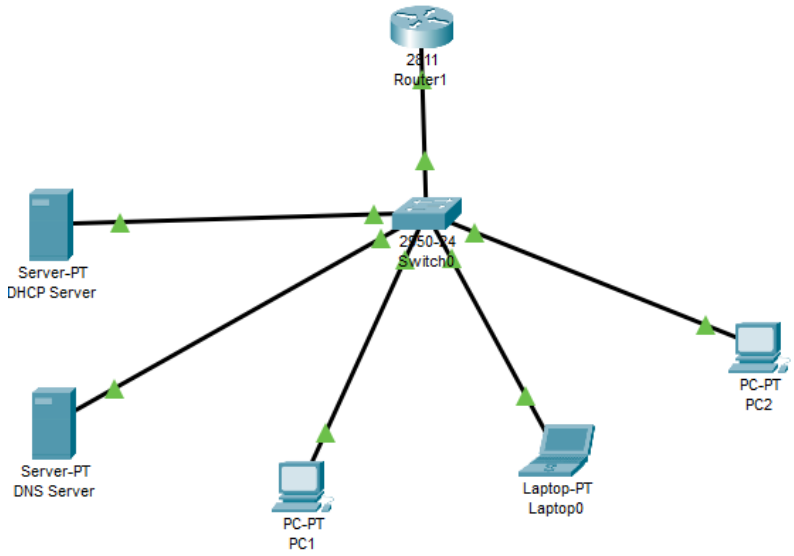
Enrollment No – BT21GCS161

Computer Network (CS – 261)

Assignment -04

Activity 4 – DNS- server configuration



DNS server - DNS (Domain Name System) is a system that translates human-friendly domain names (like www.example.com) into computer-friendly IP addresses. The domain name system maps the name people use to locate a website to the IP address that a computer uses to locate that website.

Step 1-

Configure router –

a) *Select the router (Router-2911) and access the Command Line Interface (CLI)*
b) *Enter enable mode by using 'ena.' Once you gain access, proceed to configuration mode by using 'conf'*
c) *Type "interface fastethernet0/0" to access ethernet0/0*
d) *Type "ip address 192.168.1.1 255.255.255.0" to assign on IP address and subnet mask to the interface.*
e) *"no shutdown" to open interface up for business and then Exit*

```
Router>en
Router>enable
Router#conf
Router#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.1.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
```

Step 2 –

Excluding IP Addresses

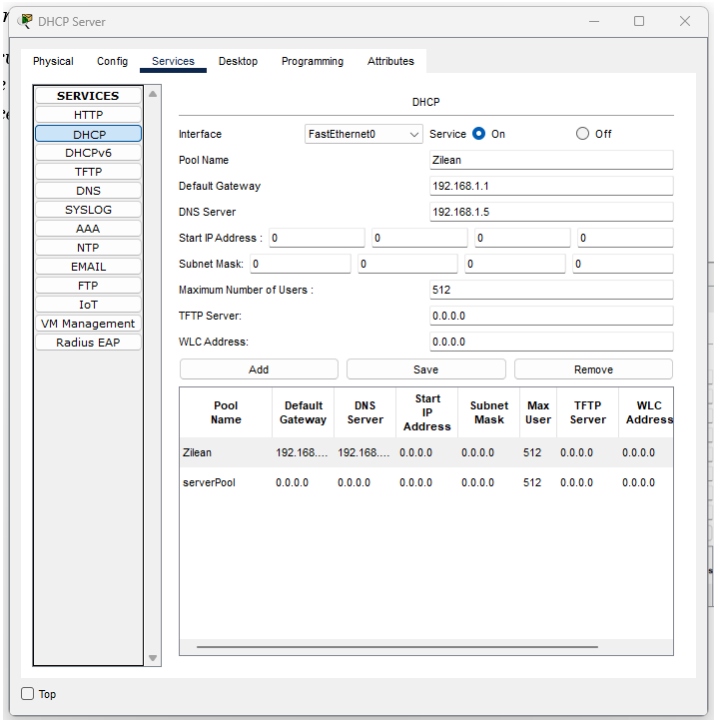
a) *Select the router (Router-2911) and access the Command Line Interface (CLI)*
b) *Enter enable mode by using 'ena.' Once you gain access, proceed to configuration mode by using 'conf'*
c) *type "ip dhcp excluded-address <start ip address> <end ip address>*

```
Router(config-if)#ip dhcp exclu
Router(config-if)#ip dhcp excluded-address 192.168.1.1 192.168.1.5
```

Step 3 –

Creating DHCP server

i) *select server-PT DHCP server*
ii) *select the service*
iii) *in service go to DHCP*



iv) *Select the router (Router-2911) and access the Command Line Interface (CLI)*
v) *Enter enable mode by using 'ena.' Once you gain access, proceed to configuration mode by using 'conf'.*
vi) *type "ip dhcp pool <pool name> it helps to enable the pool configuration mode*
vii) *Once you gain access to pool configuration mode, type 'net <IP address> <subnet mask>' and then set the default router IP address to 192.168.1.1.*
viii) *and also set DNS server <ip address>*

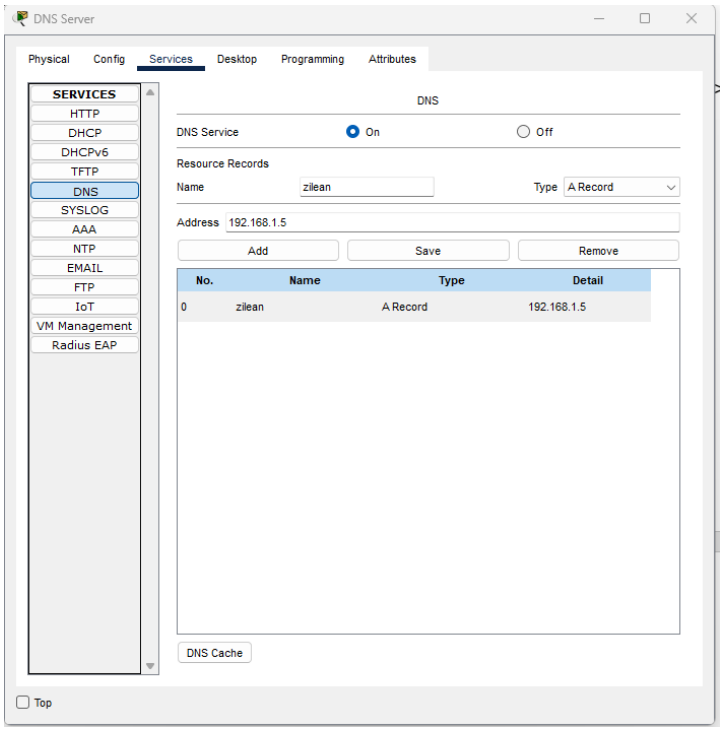
ix) exit

```
Router(config-if)#ip dhcp exclu
Router(config-if)#ip dhcp excluded-address 192.168.1.1 192.168.1.5
Router(config)#ip dhcp pool Zilean
Router(dhcp-config)#net 192.168.1.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.1.1
Router(dhcp-config)#dns-server 192.168.1.5
Router(dhcp-config)#exit
```

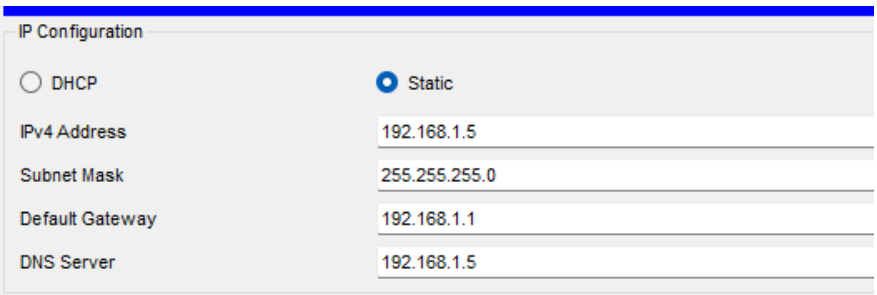
Step 4 –

Creating DNS server

a) Select server DNS server
b) Select the service
c) In service go to DNS
d) Fill in the details, such as naming your resource and providing the IP address of that resource

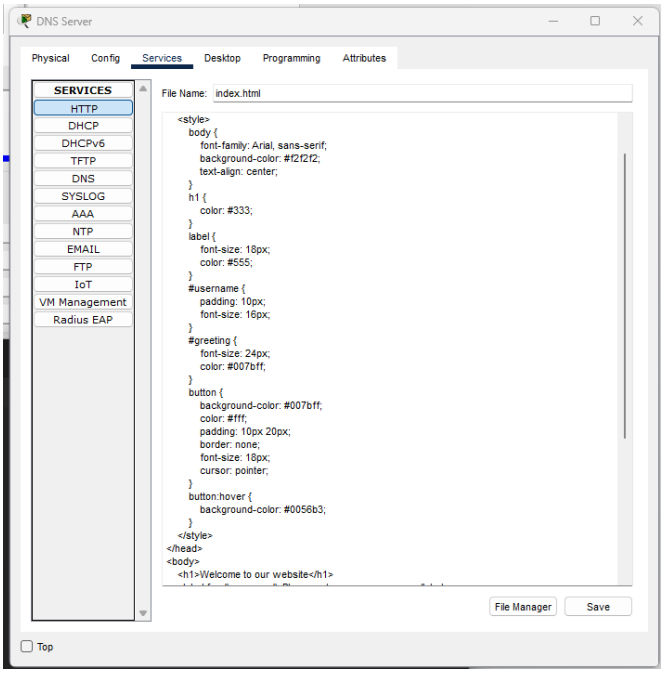


e) Now, go to the 'Desktop' tab, and within that, select 'IP configuration'.
f) Provide IPv4 address, Default gateway, and DNS server



Note: The IPv4 address and DNS server address should be the same.

g) *Now, once again, navigate to 'Services,' and select 'HTTP Services.' Choose an HTML file and click the 'Edit' button. Now, write your own html code*

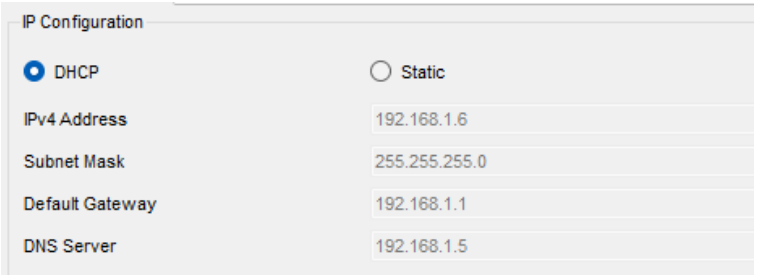


h) *Then click on save,*

Note: It will ask if the file with this name already exists. Are you sure you want to overwrite the file? If yes, then click on 'Yes'; otherwise, click on 'No.' However, please click on the 'Yes' button only.

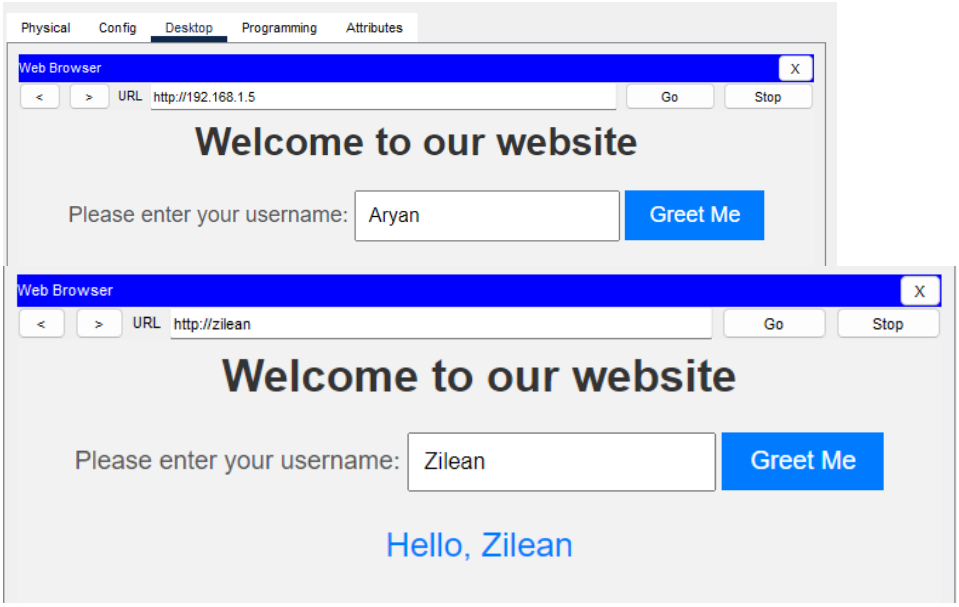
Step 5 –

a) *Select PC1 and then navigate to its Desktop and open the IP configuration.*
b) *Click on DHCP button*
c) *Wait for a minute to allow the automatic assignment of the IP address through DHCP.*
d) *Repeat the same steps for another device*



Step 6- ***Checking DNS configuration***

a) *Select PC1, and then navigate to its Desktop and open the web browser.*
b) *Type your website name < resource> or you can type ip address <resource>*



c) *Different method, select PC1, and then navigate to its Desktop and open the Command Prompt.*

d) *Type "ping <resource name>" or "ping <ip address>*

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.5

Pinging 192.168.1.5 with 32 bytes of data:

Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping zilean

Pinging 192.168.1.5 with 32 bytes of data:

Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=7ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 7ms, Average = 2ms
```
