Lab #4
Implementation of a Local DNS Server using Cisco Packet Tracer

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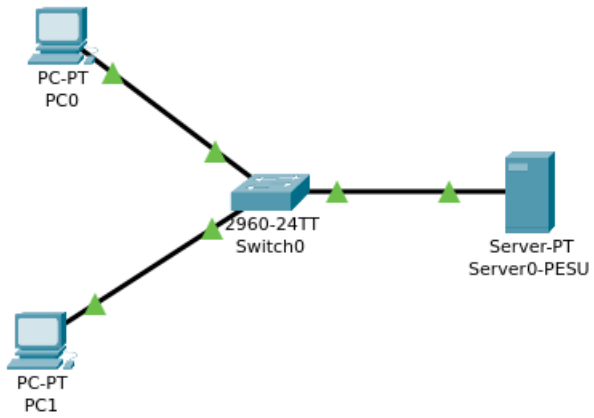
Task 1 (Demo)

Network Topology:

To replicate given scenario, create a topology in packet tracer, as shown in following image.

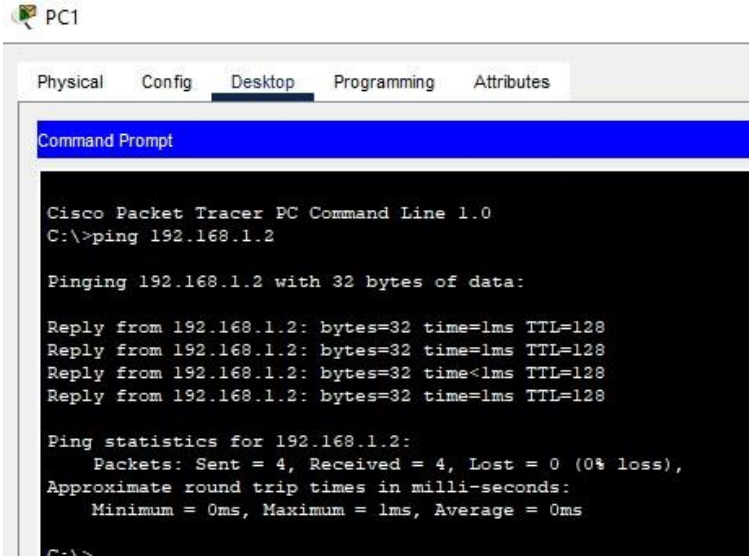


PC & Router Configuration Details:

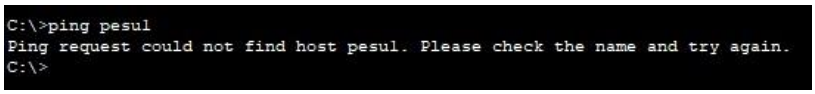
Here along with the IP we'll assign the DNS server address to let the PC know about its Local DNS Server

PC0	**IP - 192.168.1.2** **DNS** **192.168.1.1**
PC1	**IP - 192.168.1.3** **DNS -** **192.168.1.1**
Server	**IP - 192.168.1.1** **DNS -** **192.168.1.1**

Name = PESU
IP= 192.168.1.1
ADD
Click on other PC1- 192.168.1.3
Command Prompt
$Ping- 192.168.1.2



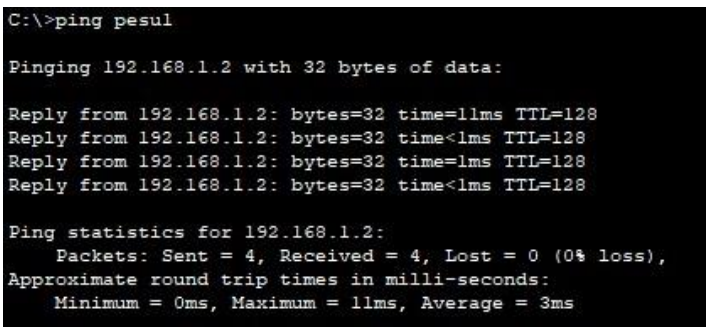
$Ping- PESU1

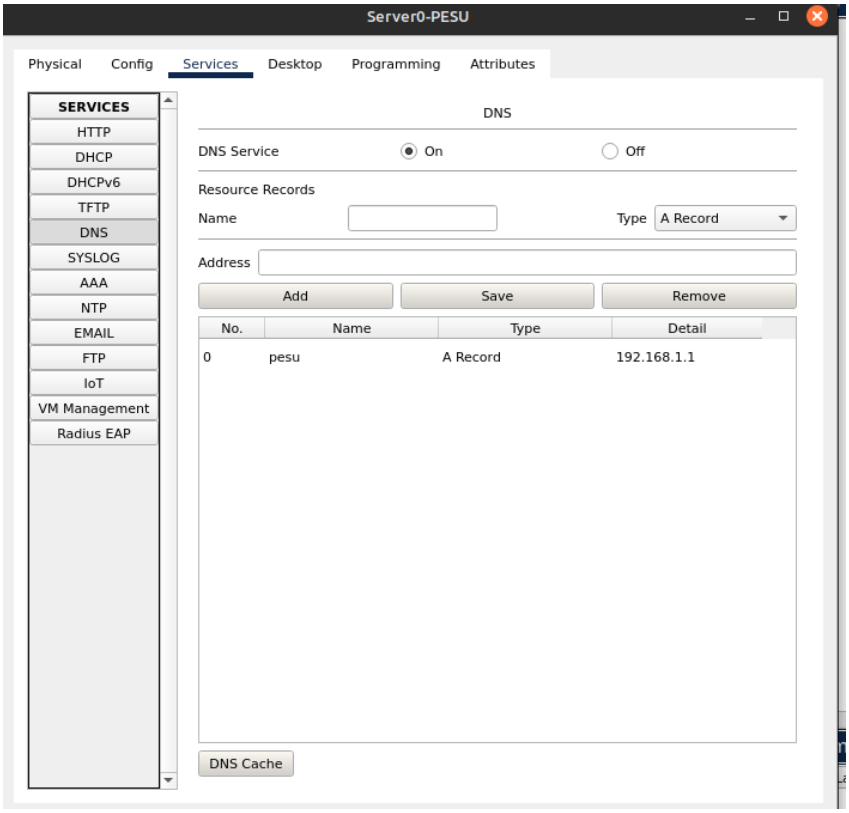


Click on the server- services-DNS – DNS service =on

Name = PESU1
IP= 192.168.1.2
ADD

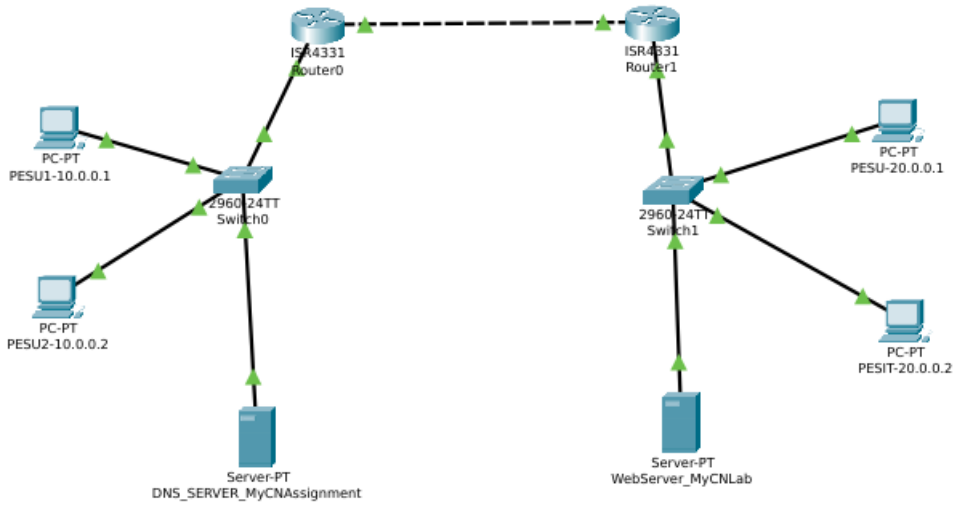
Click on other PC1- 192.168.1.3 Command Prompt
$Ping- PESU1



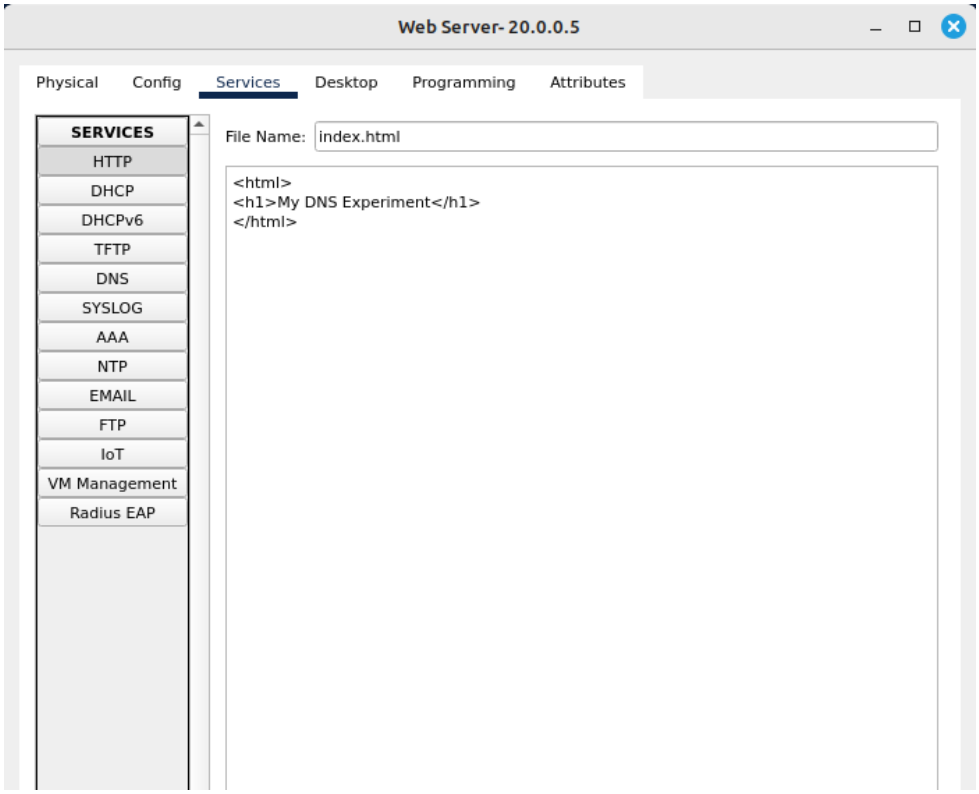


Task 2 (Mandatory)

Students should create the given topology and get the successful ping by adding entries in the DNS Server. Also students should be able to access the web server.



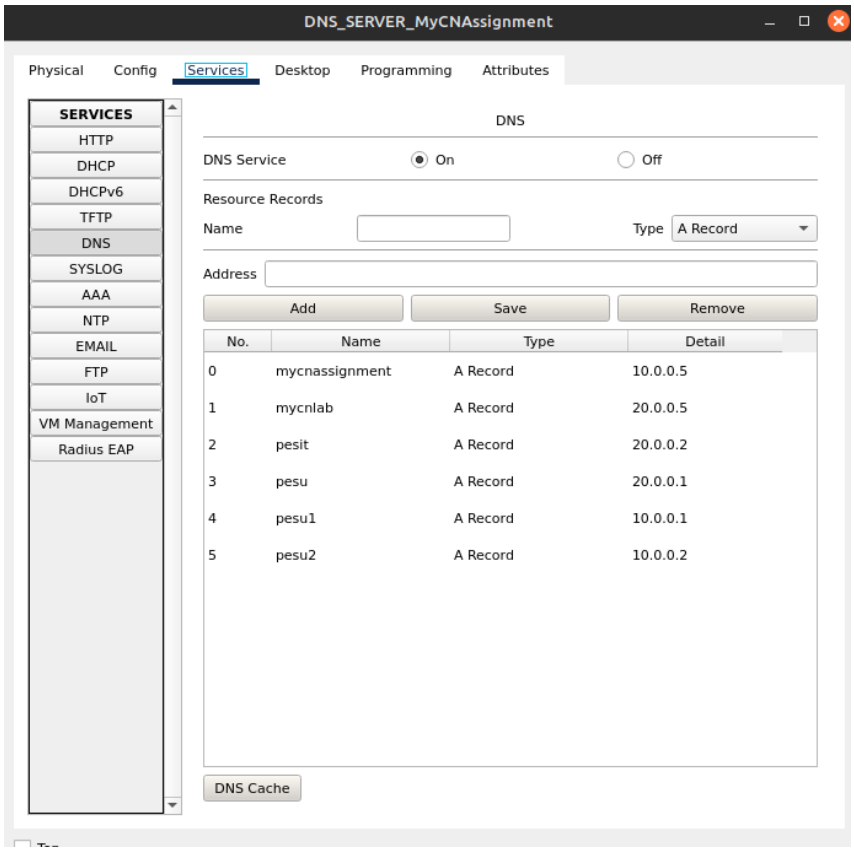
Click on Web Server-Services- HTTP -->Index.html edit.



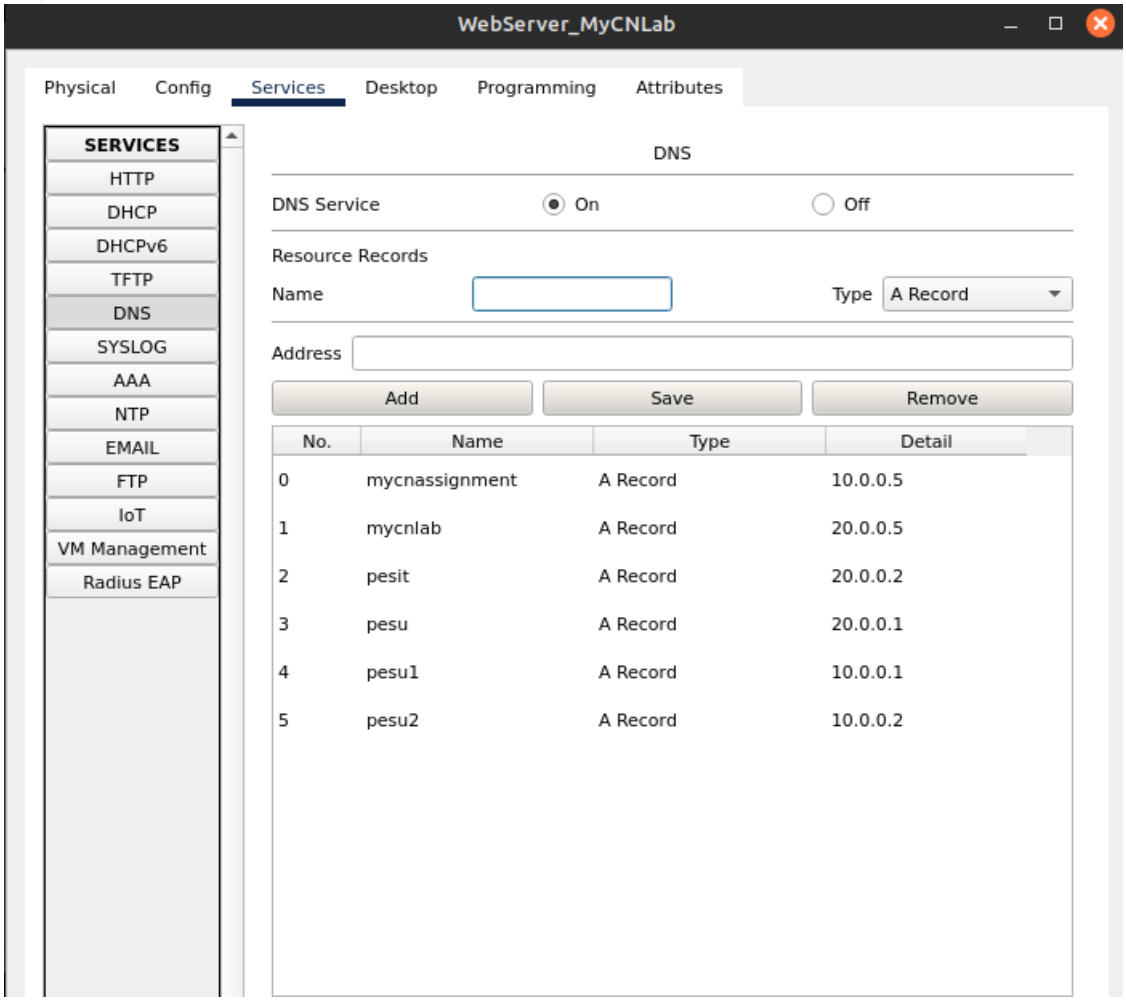
Save. (Overwrite= yes)

Screenshots of the entries in DNS server

MyCNAssignment



MyCnLab

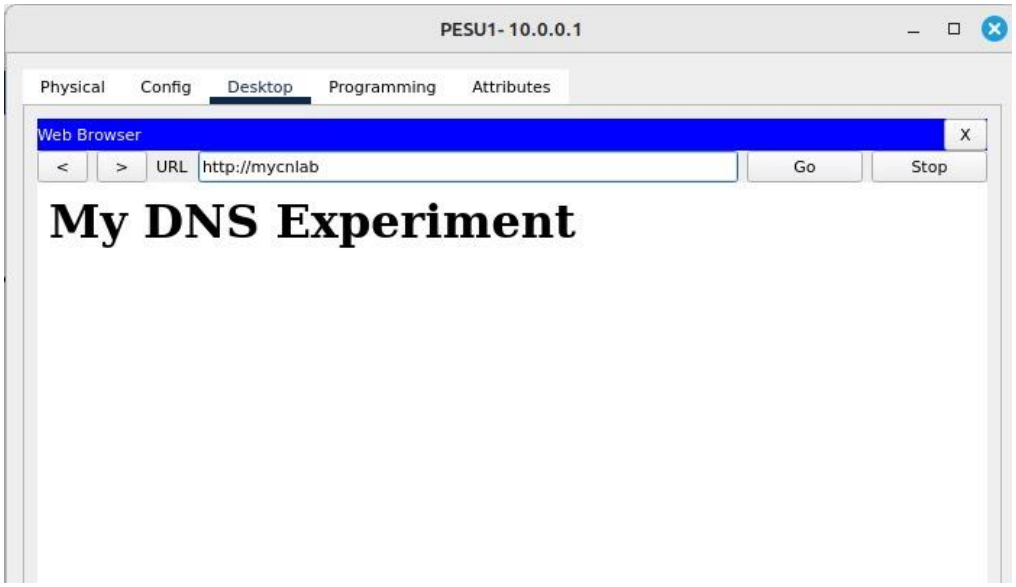

WebServer_MyCNLab
Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP
DNS
DNS Service
On
Off
Resource Records
Name
Type
A Record
Address
Add
Save
Remove
No.
Name
Type
Detail
0 mycnassignment A Record 10.0.0.5
1 mycnlab A Record 20.0.0.5
2 pesit A Record 20.0.0.2
3 pesu A Record 20.0.0.1
4 pesu1 A Record 10.0.0.1
5 pesu2 A Record 10.0.0.2

Pinging Of Various Systems From PC1

```
C:\>ping pesu2

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping pesu

Pinging 20.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.1: bytes=32 time<1ms TTL=126
Reply from 20.0.0.1: bytes=32 time<1ms TTL=126
Reply from 20.0.0.1: bytes=32 time<1ms TTL=126

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping pesit

Pinging 20.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.2: bytes=32 time<1ms TTL=126
Reply from 20.0.0.2: bytes=32 time<1ms TTL=126
Reply from 20.0.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping mycnlab

Pinging 20.0.0.5 with 32 bytes of data:

Reply from 20.0.0.5: bytes=32 time<1ms TTL=126
Reply from 20.0.0.5: bytes=32 time<1ms TTL=126
Reply from 20.0.0.5: bytes=32 time=14ms TTL=126
Reply from 20.0.0.5: bytes=32 time<1ms TTL=126

Ping statistics for 20.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 14ms, Average = 3ms

C:\>ping mycnassignment

Pinging 10.0.0.5 with 32 bytes of data:

Reply from 10.0.0.5: bytes=32 time<1ms TTL=128
Reply from 10.0.0.5: bytes=32 time<1ms TTL=128
Reply from 10.0.0.5: bytes=32 time<1ms TTL=128
Reply from 10.0.0.5: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Webpages:


PESU1- 10.0.0.1
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://mycnlab
Go
Stop
My DNS Experiment