

Date: 16/07/2025

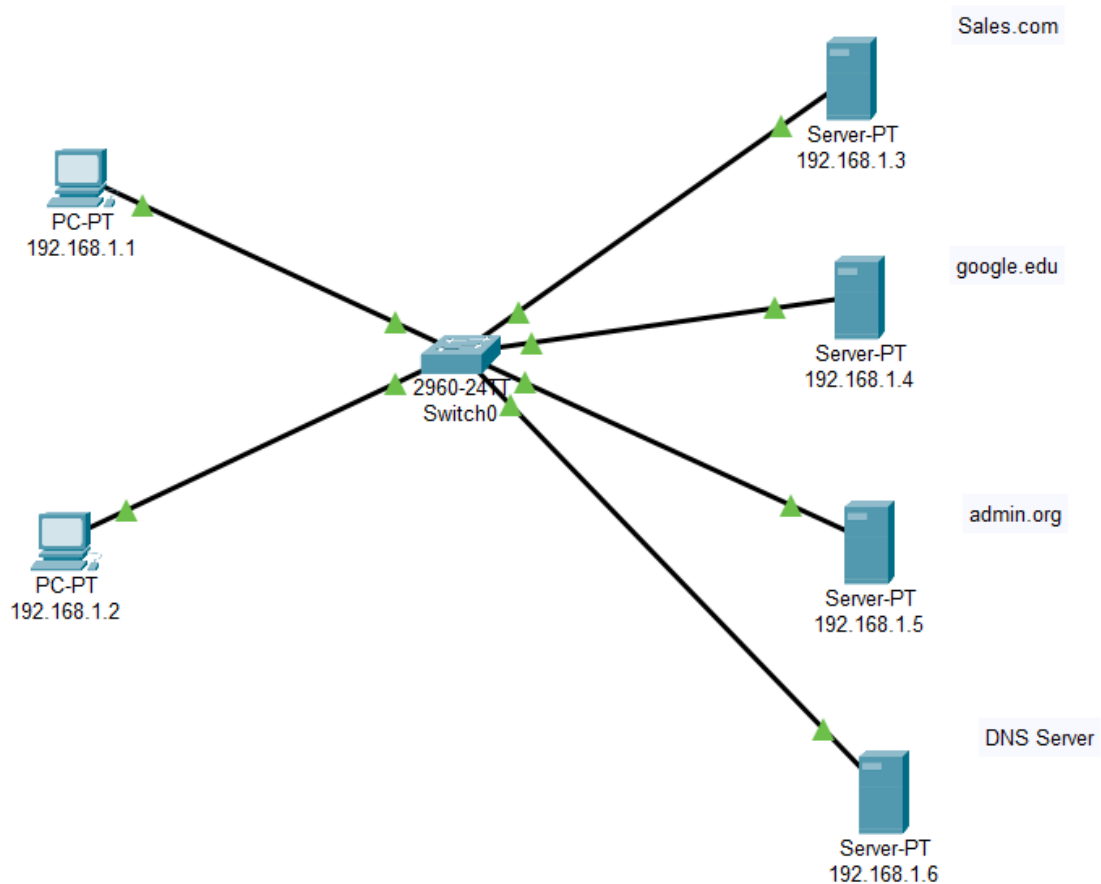
Lab Practical #07:

Study the application layer protocol DNS, DHCP, FTP.

Practical Assignment #07:

1. Implement the application layer protocol DNS, DHCP, and FTP. Also check connectivity between them using ping command or PDU utility.

DNS:





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192.168.1.6

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

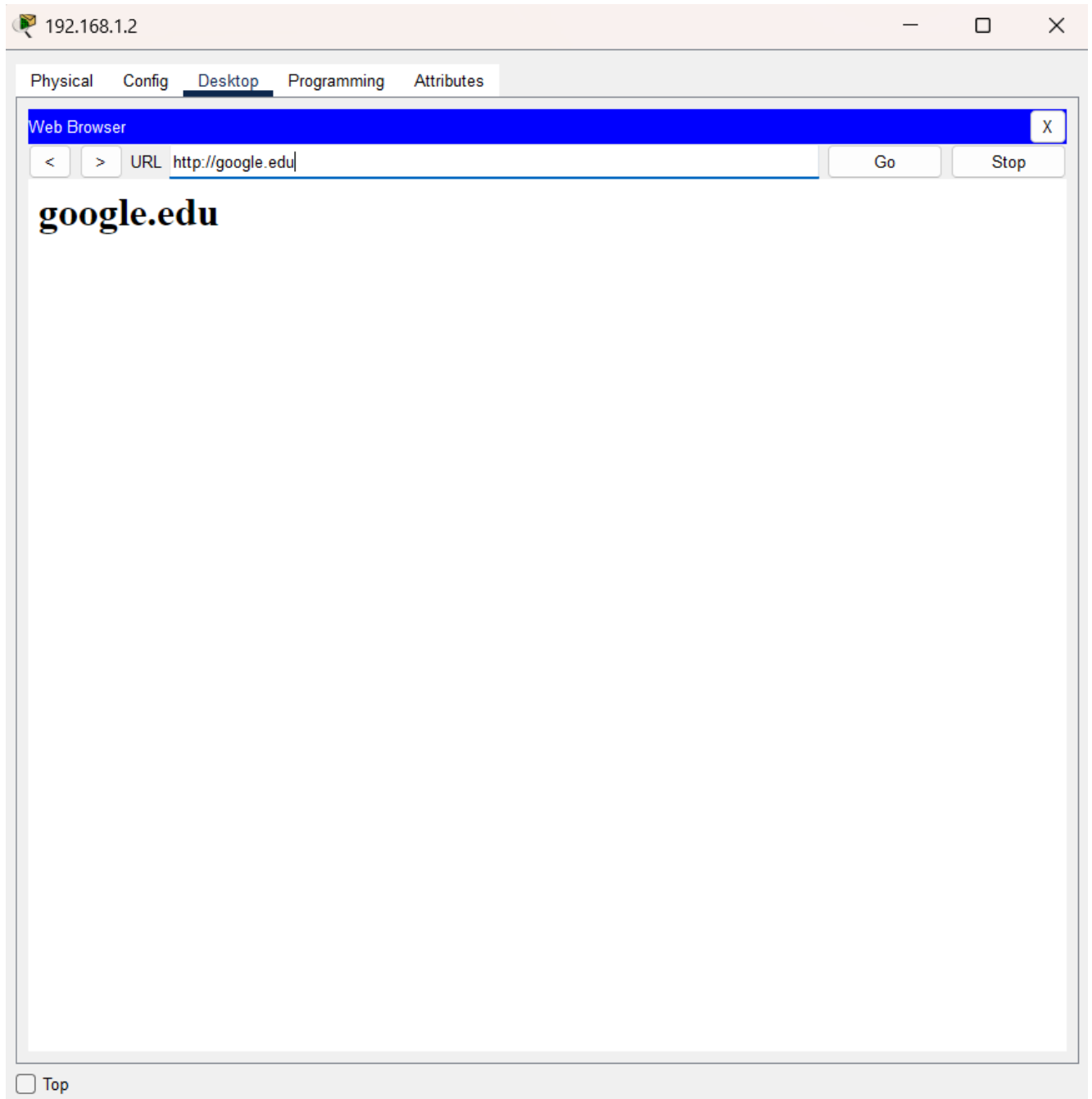
No.	Name	Type	Detail
0	admin.org	A Record	192.168.1.5
1	google.edu	A Record	192.168.1.4
2	sales.com	A Record	192.168.1.3

DNS Cache

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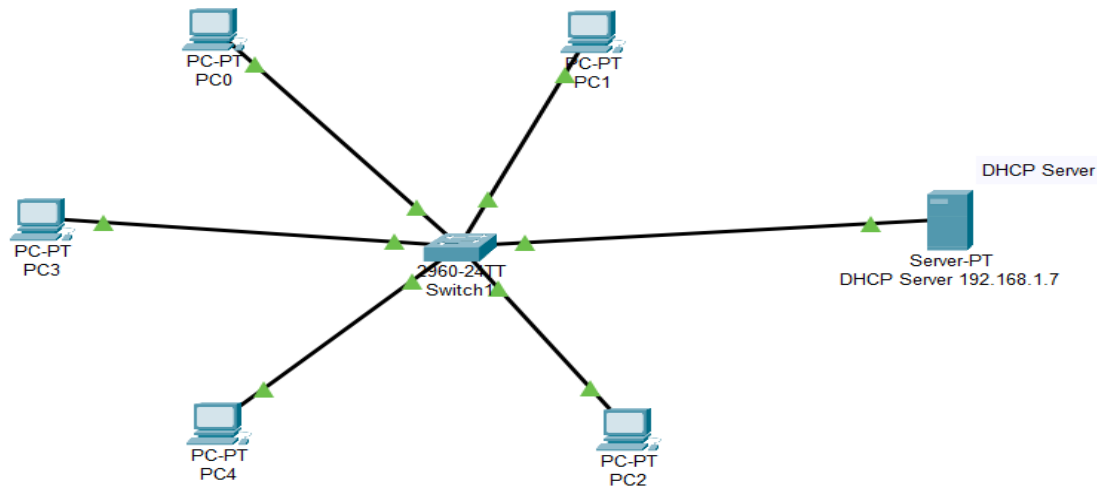


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DHCP:



DHCP Server 192.168.1.7

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address: 192 168 1 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 512

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	192.168.1.0	255.255.2...	512	0.0.0.0	0.0.0.0

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PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address 192.168.1.2

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::260:70FF:FEFE:99C9

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

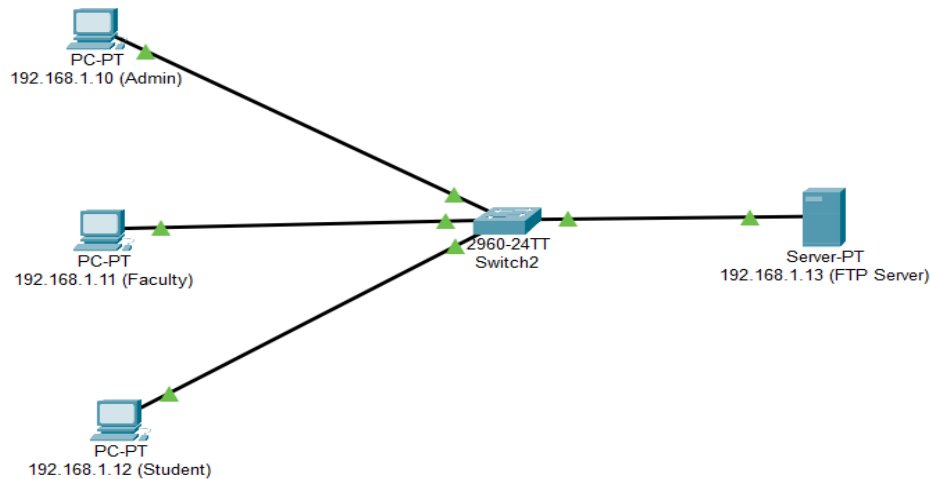
Username

Password

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FTP



192.168.1.13 (FTP Server)

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP**
- IoT
- VM Management
- Radius EAP

FTP

Service ☒ On ☐ Off

User Setup

Username Password

☐ Write ☐ Read ☐ Delete ☐ Rename ☐ List

	Username	Password	Permission
1	Admin	a	RWDNL
2	Faculty	f	RWL
3	Student	s	RL

Add Save Remove

File

1	admin.txt
2	asa842-k8.bin
3	asa923-k8.bin
4	c1841-advipservicesk9-mz.124-15.T1.bin
5	c1841-ipbase-mz.123-14.T7.bin

Remove

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192.168.1.10 (Admin)

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.1.13
Trying to connect...192.168.1.13
Connected to 192.168.1.13
220- Welcome to PT Ftp server
Username:admin

%Error ftp://192.168.1.13/ (No such Account)
332- Need account for login

C:\>ftp 192.168.1.13
Trying to connect...192.168.1.13
Connected to 192.168.1.13
220- Welcome to PT Ftp server
Username:Admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>put admin.txt

Writing file admin.txt to 192.168.1.13:
File transfer in progress...

[Transfer complete - 11 bytes]

11 bytes copied in 0.086 secs (127 bytes/sec)
ftp>|
```

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192.168.1.11 (Faculty)

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.1.13
Trying to connect...192.168.1.13
Connected to 192.168.1.13
220- Welcome to PT Ftp server
Username:Faculty
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get admin.txt

Reading file admin.txt from 192.168.1.13:
File transfer in progress...

[Transfer complete - 11 bytes]

11 bytes copied in 0 secs
ftp>
```

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