



## Computer Networking lab

# LAB 05

Course Code: CSE 314

Submitted to:

**Narayan Ranjan Chakraborty**

Assistant Professor

Daffodil International University

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Submitted by:

**MD. RAKIBUL ISLAM SHANTO**

ID no: 203-15-3871

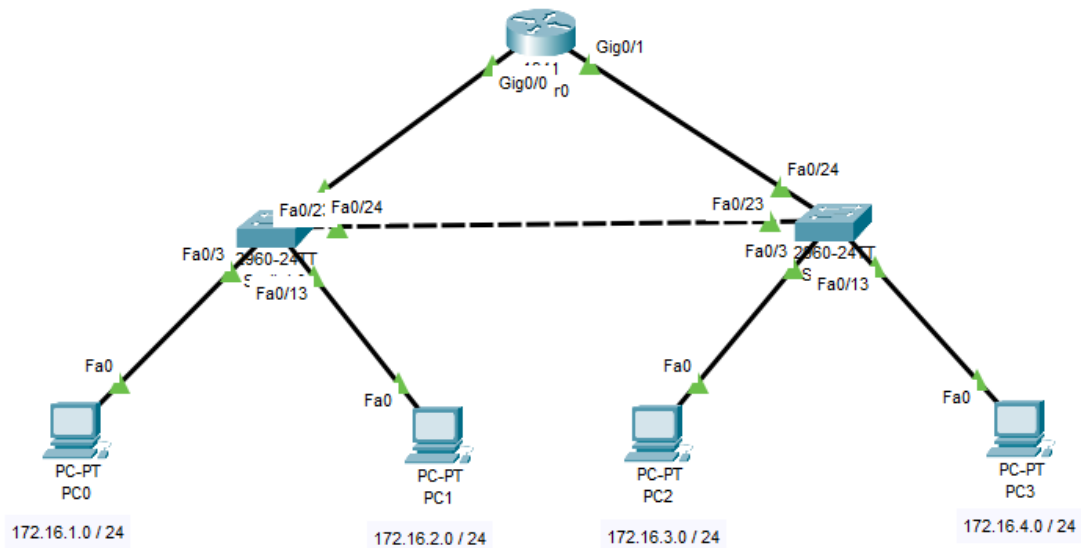
Section: PC-A

Department of CSE

Daffodil International University



## Diagram



## 1<sup>st</sup> Pc Ip Address

PC1

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 172.16.1.7

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:47FF:FEAA:398A

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

## 2<sup>nd</sup> Pc Ip Address

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 172.16.2.7

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::202:16FF:FEA4:4E61

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

## 3<sup>rd</sup> Pc Ip Address

PC2

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 172.16.4.7

Subnet Mask 255.255.255.0

Default Gateway 192.168.4.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::260:70FF:FE0E:EC7D

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

## 4<sup>th</sup> Pc Ip Address

The screenshot shows the 'PC3' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is active, showing settings for the 'FastEthernet0' interface. The 'Static' radio button is selected under 'IP Configuration'. The fields are filled with: IPv4 Address: 172.16.3.7, Subnet Mask: 255.255.255.0, Default Gateway: 192.168.3.1, and DNS Server: 0.0.0.0. The 'IPv6 Configuration' section also has 'Static' selected, with fields for IPv6 Address, Link Local Address (FE80::210:11FF:FE40:B13C), Default Gateway, and DNS Server. The '802.1X' section is collapsed, showing 'Use 802.1X Security' as unchecked, 'Authentication' as 'MD5', and empty fields for 'Username' and 'Password'. A 'Top' button is at the bottom left.

## Coding part

### Switch-01

```
Switch>en
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 55
Switch(config-vlan)#ex
Switch(config)#vlan 105
Switch(config-vlan)#ex
Switch(config)#ex
Switch#show vlan
```

#### VLAN Name Status Ports

```
-----
1 default active Fa0/1, Fa0/2, Fa0/3, Fa0/4
Fa0/5, Fa0/6, Fa0/7, Fa0/8
Fa0/9, Fa0/10, Fa0/11, Fa0/12
Fa0/13, Fa0/14, Fa0/15, Fa0/16
Fa0/17, Fa0/18, Fa0/19, Fa0/20
Fa0/21, Fa0/23, Fa0/24, Gig0/1
Gig0/2
55 VLAN0050 active
```

105 VLAN0100 active  
1002 fddi-default active  
1003 token-ring-default active  
1004 fddinet-default active  
1005 trnet-default active

VLAN Type SAID MTU Parent RingNo BridgeNo Stp BrdgMode Trans1 Trans2

-----  
1 enet 100001 1500 - - - - 0 0  
50 enet 100050 1500 - - - - 0 0  
100 enet 100100 1500 - - - - 0 0

Switch#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#interface range f0/1-10  
Switch(config-if-range)#switchport mode access  
Switch(config-if-range)#switch access vlan 55  
Switch(config-if-range)#ex  
Switch(config)#interface range f0/11-20  
Switch(config-if-range)#switchport mode access  
Switch(config-if-range)#switch access vlan 105  
Switch(config-if-range)#ex  
Switch(config)#int f0/24  
Switch(config-if)#switchport mode trunk  
Switch(config-if)#ex  
Switch(config)#int f0/23  
Switch(config-if)#switchport mode trunk  
Switch(config-if)#ex  
Switch(config)#ex  
Switch#

## Switch-02

Switch>en  
Switch#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#vlan 50  
Switch(config-vlan)#ex  
Switch(config)#vlan 100  
Switch(config-vlan)#ex  
Switch(config)#ex  
Switch#show vlan

VLAN Name Status Ports

-----  
1 default active Fa0/1, Fa0/2, Fa0/3, Fa0/4  
Fa0/5, Fa0/6, Fa0/7, Fa0/8  
Fa0/9, Fa0/10, Fa0/11, Fa0/12  
Fa0/13, Fa0/14, Fa0/15, Fa0/16  
Fa0/17, Fa0/18, Fa0/19, Fa0/20  
Fa0/21, Fa0/23, Fa0/24, Gig0/1

Gig0/2  
50 VLAN0050 active  
100 VLAN0100 active  
1002 fddi-default active  
1003 token-ring-default active  
1004 fddinet-default active  
1005 trnet-default active

VLAN Type SAID MTU Parent RingNo BridgeNo Stp BrdgMode Trans1 Trans2

-----  
1 enet 100001 1500 - - - - 0 0  
50 enet 100050 1500 - - - - 0 0  
100 enet 100100 1500 - - - - 0 0

Switch#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#interface range f0/1-10  
Switch(config-if-range)#switchport mode access  
Switch(config-if-range)#switch access vlan 50  
Switch(config-if-range)#ex  
Switch(config)#interface range f0/11-20  
Switch(config-if-range)#switchport mode access  
Switch(config-if-range)#switch access vlan 100  
Switch(config-if-range)#ex  
Switch(config)#int f0/24  
Switch(config-if)#switchport mode trunk  
Switch(config-if)#ex  
Switch(config)#int f0/23  
Switch(config-if)#switchport mode trunk  
Switch(config-if)#ex  
Switch(config)#ex  
Switch#

### Router

Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#int gig0/0  
Router(config-if)#no shut  
  
Router(config-if)#ex  
Router(config)#int gig0/0.1  
Router(config-subif)#encapsulation dot1Q 55  
Router(config-subif)#ip add 172.16.1.1 255.255.255.0  
Router(config-subif)#ex  
Router(config)#int gig0/0.2  
Router(config-subif)#encapsulation dot1Q 105  
Router(config-subif)#ip add 172.16.2.1 255.255.255.0  
Router(config-subif)#ex  
Router(config)#ex

```

Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int gig0/1
Router(config-if)#no shut

Router(config-if)#ex
Router(config)#int gig0/1.1
Router(config-subif)#encapsulation dot1Q 50
Router(config-subif)#ip add 172.16.3.1 255.255.255.0
Router(config-subif)#ex
Router(config)#int gig0/1.2
Router(config-subif)#encapsulation dot1Q 100
Router(config-subif)#ip add 172.16.4.1 255.255.255.0
Router(config-subif)#ex
Router(config)#ex
Router#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router#

```

## Packet transfer

