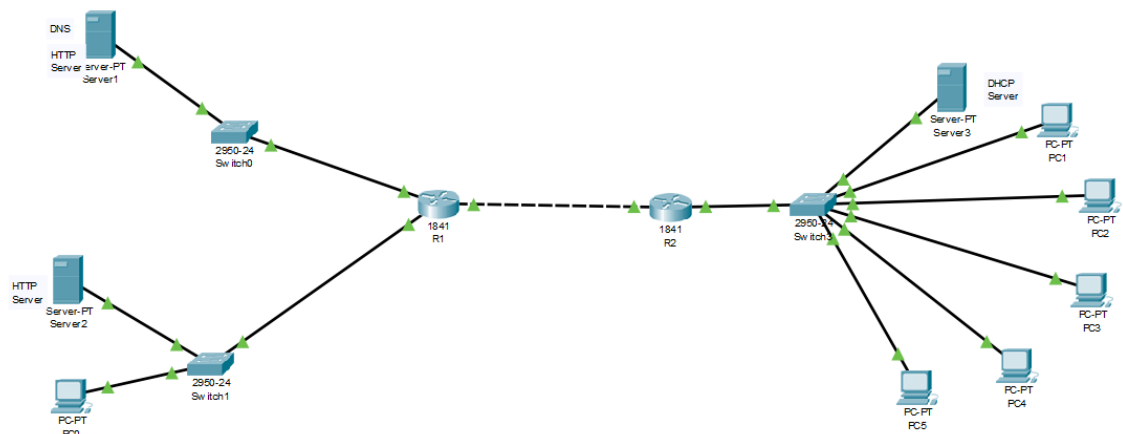


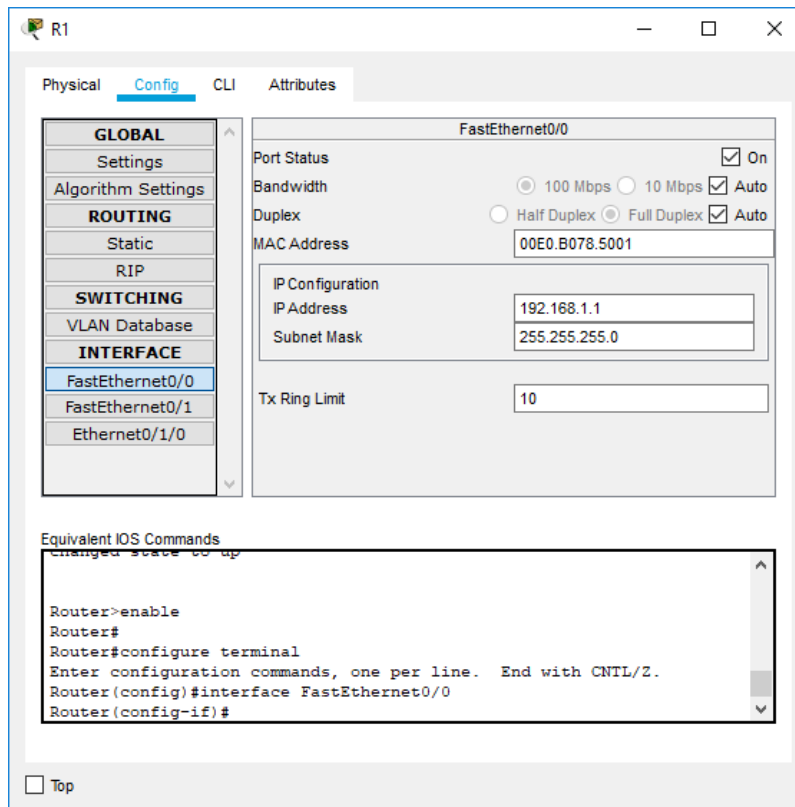
Nama : Listian Prihutomo  
NIM : L200170175  
Kelas : D

## KUIS PRAKTIKUM JARKOM

1. Membuat topologi dengan tiga buah jaringan terdiri dari dua buah router, tiga buah server (DHCP, DNS, HTTP Server) dan enam buah PC Workstation



2. Konfigurasi pada Router 1 (R1)



R1

Physical **Config** CLI Attributes

**GLOBAL**

Settings

Algorithm Settings

**ROUTING**

Static

RIP

**SWITCHING**

VLAN Database

**INTERFACE**

FastEthernet0/0

**FastEthernet0/1**

Ethernet0/1/0

**FastEthernet0/1**

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00E0.B078.5002

IP Configuration

IP Address 192.168.2.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
```

☐ Top

R1

Physical **Config** CLI Attributes

**GLOBAL**

Settings

Algorithm Settings

**ROUTING**

Static

RIP

**SWITCHING**

VLAN Database

**INTERFACE**

FastEthernet0/0

FastEthernet0/1

**Ethernet0/1/0**

**Ethernet0/1/0**

Port Status ☒ On

Bandwidth ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.FFE3.112D

IP Configuration

IP Address 192.168.3.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Ethernet0/1/0
Router(config-if)#
```

☐ Top

### 3. Konfigurasi pada router 2 (R2)

The screenshot shows the configuration window for router R2, specifically the 'Config' tab. The left sidebar has a tree view with categories: GLOBAL, ROUTING, SWITCHING, and INTERFACE. Under the INTERFACE category, 'FastEthernet0/0' is selected. The main area displays the configuration for 'FastEthernet0/0'. The 'Port Status' is checked 'On'. 'Bandwidth' is set to '100 Mbps' with 'Auto' checked. 'Duplex' is set to 'Full Duplex' with 'Auto' checked. The 'MAC Address' is '0005.5E9D.8E01'. The 'IP Configuration' section shows 'IP Address' as '192.168.4.1' and 'Subnet Mask' as '255.255.255.0'. The 'Tx Ring Limit' is '10'. Below the configuration fields is a text area for 'Equivalent IOS Commands' containing the following commands:

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

At the bottom left, there is a 'Top' button.

The screenshot shows the configuration window for router R2, specifically the 'Config' tab. The left sidebar has a tree view with categories: GLOBAL, ROUTING, SWITCHING, and INTERFACE. Under the INTERFACE category, 'FastEthernet0/1' is selected. The main area displays the configuration for 'FastEthernet0/1'. The 'Port Status' is checked 'On'. 'Bandwidth' is set to '10 Mbps' with 'Auto' checked. 'Duplex' is set to 'Full Duplex' with 'Auto' checked. The 'MAC Address' is '0005.5E9D.8E02'. The 'IP Configuration' section shows 'IP Address' as '192.168.3.2' and 'Subnet Mask' as '255.255.255.0'. The 'Tx Ring Limit' is '10'. Below the configuration fields is a text area for 'Equivalent IOS Commands' containing the following commands:

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
```

At the bottom left, there is a 'Top' button.

4. Konfigurasi pada server DHCP sehingga 5 buah workstation nanti dapat mendapatkan ip secara otomatis

The screenshot shows the 'Config' tab for 'FastEthernet0' on 'Server3'. The left sidebar has 'INTERFACE' selected, with 'FastEthernet0' highlighted. The main area shows the following settings:

- Port Status: ☒ On
- Bandwidth: ☒ 100 Mbps, ☐ 10 Mbps, ☒ Auto
- Duplex: ☐ Half Duplex, ☒ Full Duplex, ☒ Auto
- MAC Address: 0003.E4DA.6697
- IP Configuration: ☐ DHCP, ☒ Static
- IP Address: 192.168.4.2
- Subnet Mask: 255.255.255.0
- IPv6 Configuration: ☐ DHCP, ☐ Auto Config, ☒ Static
- IPv6 Address: (empty field)
- Link Local Address: FE80::203:E4FF:FEDA:6697

At the bottom left, there is a 'Top' button.

The screenshot shows the 'Services' tab for 'Server3'. The left sidebar has 'SERVICES' selected, with 'DHCP' highlighted. The main area shows the following settings:

- Interface: FastEthernet0
- Service: ☒ On, ☐ Off
- Pool Name: serverPool
- Default Gateway: 192.168.4.1
- DNS Server: 192.168.1.2
- Start IP Address: 192, 168, 4, 3
- Subnet Mask: 255, 255, 255, 0
- Maximum Number of Users: 5
- TFTP Server: 0.0.0.0
- WLC Address: 0.0.0.0

Below the settings are buttons for 'Add', 'Save', and 'Remove'. At the bottom, there is a table showing the configuration for the 'serverPool'.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.4.1	192.168.1.2	192.168.4.3	255.255.255.0	5	0.0.0.0	0.0.0.0

At the bottom left, there is a 'Top' button.

5. Konfigurasi pada 5 workstation agar mendapatkan ip secara otomatis

The screenshot shows the 'PC1' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is expanded, showing settings for the 'FastEthernet0' interface. The 'DHCP' radio button is selected under 'IP Configuration'. The 'IPv6 Configuration' section shows 'Static' as the selected option. The '802.1X' section has 'Use 802.1X Security' unchecked and 'Authentication' set to 'MD5'.

Interface	FastEthernet0	
<b>IP Configuration</b>		
<input checked="" type="radio"/> DHCP	<input type="radio"/> Static	
IP Address	192.168.4.3	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.4.1	
DNS Server	192.168.1.2	
<b>IPv6 Configuration</b>		
<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address		
Link Local Address	FE80::20C:85FF:FE23:902B	
IPv6 Gateway		
IPv6 DNS Server		
<b>802.1X</b>		
<input type="checkbox"/> Use 802.1X Security		
Authentication	MD5	

☐ Top

6. Konfigurasi pada Server 1 (DNS dan HTTP Server)

The screenshot shows the 'Server1' configuration window with the 'Config' tab selected. The 'FastEthernet0' interface is selected in the left sidebar. The 'Port Status' is 'On'. 'Bandwidth' is set to '100 Mbps' and 'Duplex' is set to 'Full Duplex'. The 'MAC Address' is '0060.7004.3EA2'. The 'IP Configuration' section shows 'Static' selected. The 'IPv6 Configuration' section shows 'Static' selected. The 'Link Local Address' is 'FE80::260:70FF:FE04:3EA2'.

Interface	FastEthernet0	
<b>Port Status</b>		
<input checked="" type="checkbox"/> On		
Bandwidth	<input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto	
Duplex	<input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto	
MAC Address	0060.7004.3EA2	
<b>IP Configuration</b>		
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static	
IP Address	192.168.1.2	
Subnet Mask	255.255.255.0	
<b>IPv6 Configuration</b>		
<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address		
Link Local Address	FE80::260:70FF:FE04:3EA2	

☐ Top

Server1

PhysicalConfigServicesDesktopProgrammingAttributes

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	informatika.ums.com	A Record	192.168.1.2
1	ums.com	A Record	192.168.1.2

DNS Cache

Top

Server1

PhysicalConfigServicesDesktopProgrammingAttributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

HTTP

On

Off

HTTPS

On

Off

File Manager

	File Name	Edit	Delete
1	copyrights.html	(edit)	(delete)
2	cscoptlogo177x111.jpg		(delete)
3	helloworld.html	(edit)	(delete)
4	image.html	(edit)	(delete)
5	index.html	(edit)	(delete)

New File

Import

Top

## 7. Konfigurasi pada Server 3 (HTTP Server)

**Server2**

Physical **Config** Services Desktop Programming Attributes

**GLOBAL**

- Settings
- Algorithm Settings
- INTERFACE**
- FastEthernet0

**FastEthernet0**

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.FFB8.9E88

IP Configuration

☐ DHCP

☒ Static

IP Address 192.168.2.2

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Address

Link Local Address: FE80::2D0:FFFF:FE88:9E88

☐ Top

---

**Server2**

Physical **Config** **Services** Desktop Programming Attributes

**SERVICES**

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

**HTTP**

☒ On ☐ Off

**HTTPS**

☒ On ☐ Off

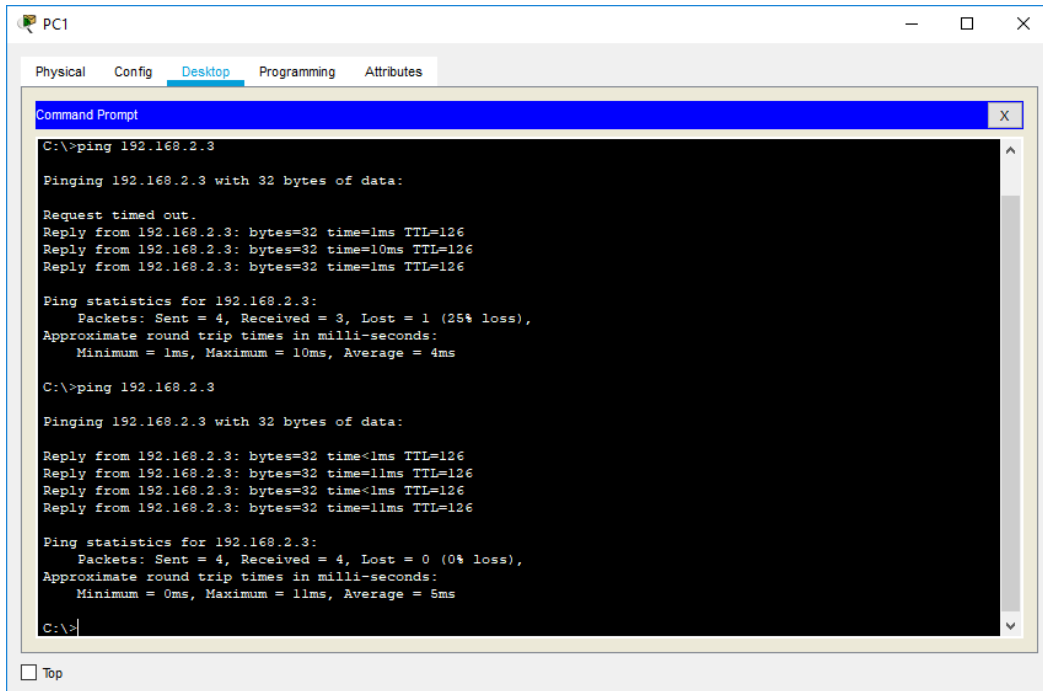
**File Manager**

	File Name	Edit	Delete
1	copyrights.html	(edit)	(delete)
2	cscoptlogo177x111.jpg		(delete)
3	helloworld.html	(edit)	(delete)
4	image.html	(edit)	(delete)
5	index.html	(edit)	(delete)

☐ Top

New File Import

8. Uji jaringan dengan melakukan ping dari PC1 pada jaringan 3 menuju PC0 pada jaringan 2



The screenshot shows a Windows Command Prompt window titled "PC1" with tabs for Physical, Config, Desktop, Programming, and Attributes. The "Desktop" tab is active. The Command Prompt displays the results of two ping commands to the IP address 192.168.2.3. The first command shows a "Request timed out" followed by three successful replies. The second command shows four successful replies. Both show statistics for 4 packets sent, with 3 received in the first case and 4 received in the second.

```
C:\>ping 192.168.2.3

Pinging 192.168.2.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.3: bytes=32 time=1ms TTL=126
Reply from 192.168.2.3: bytes=32 time=10ms TTL=126
Reply from 192.168.2.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 10ms, Average = 4ms

C:\>ping 192.168.2.3

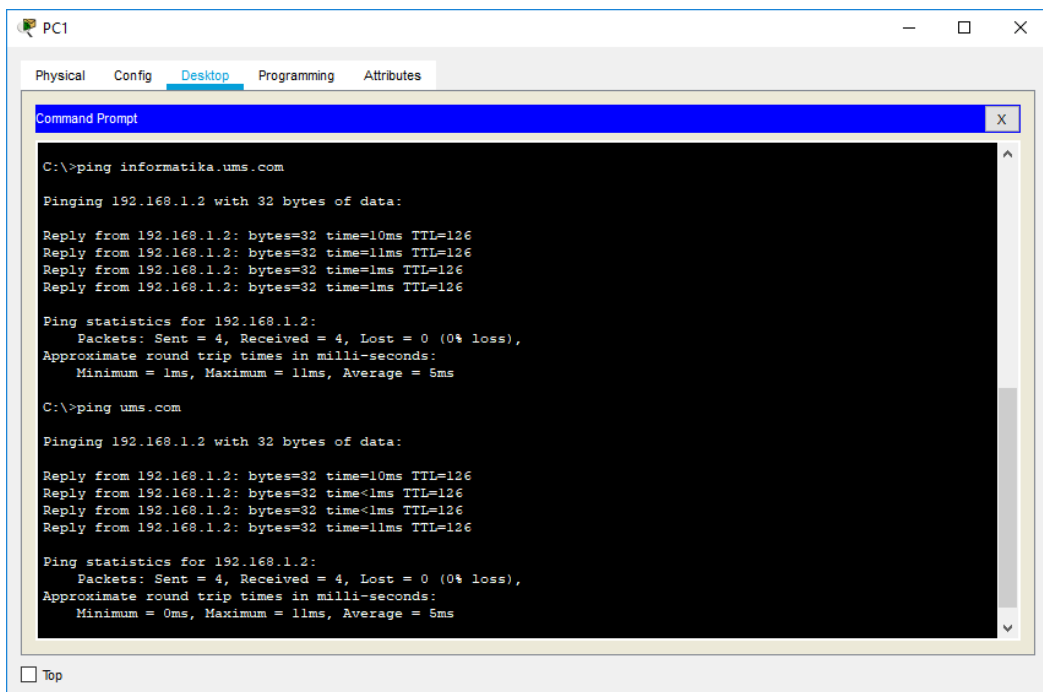
Pinging 192.168.2.3 with 32 bytes of data:

Reply from 192.168.2.3: bytes=32 time<1ms TTL=126
Reply from 192.168.2.3: bytes=32 time=11ms TTL=126
Reply from 192.168.2.3: bytes=32 time<1ms TTL=126
Reply from 192.168.2.3: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 5ms

C:\>
```

9. Uji jaringan dengan melakukan ping dari PC1 pada jaringan 3 menuju DNS yang sudah dibuat yaitu informatika.ums.com dan ums.com pada jaringan 1



The screenshot shows a Windows Command Prompt window titled "PC1" with tabs for Physical, Config, Desktop, Programming, and Attributes. The "Desktop" tab is active. The Command Prompt displays the results of two ping commands to domain names. Both commands show four successful replies and statistics for 4 packets sent, all received, with 0% loss.

```
C:\>ping informatika.ums.com

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=10ms TTL=126
Reply from 192.168.1.2: bytes=32 time=11ms TTL=126
Reply from 192.168.1.2: bytes=32 time=1ms TTL=126
Reply from 192.168.1.2: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 11ms, Average = 5ms

C:\>ping ums.com

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=10ms TTL=126
Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 5ms

C:\>
```



10. Uji jaringan dengan melakukan web surfing dari PC1 pada jaringan 3 menuju HTTP Server informatika.ums.com dan ums.com pada jaringan 1 dan 2

