Vježba 5_0: Prikaz računalne mreže s usmjernikom i preklopnicima
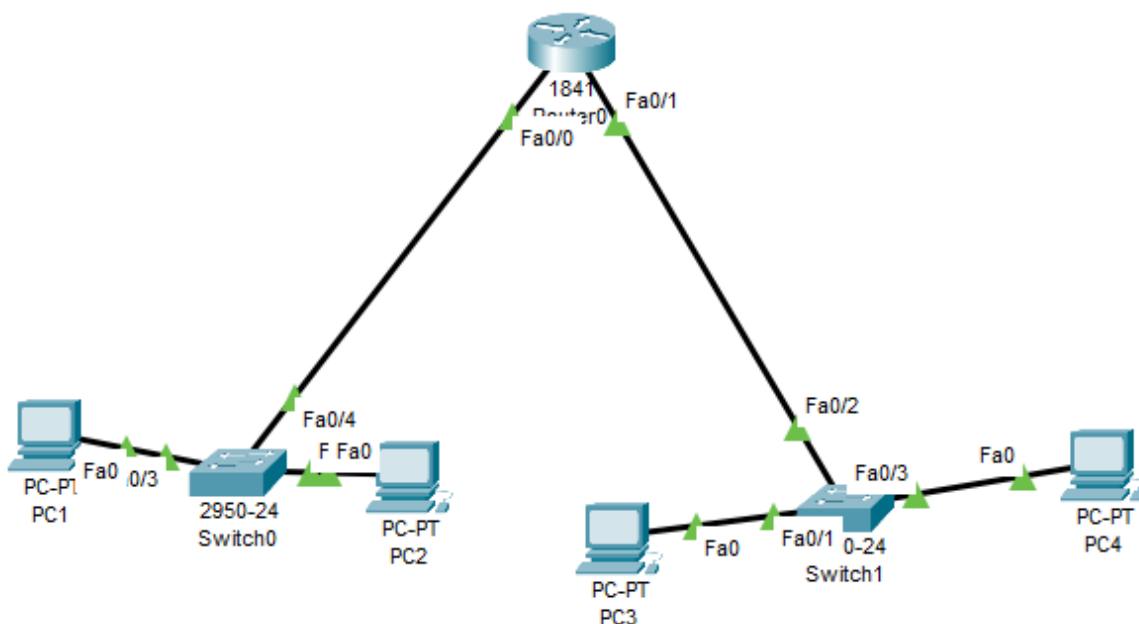
David Rudar i Jan Šotić

PRIPREMA ZA VJEŽBU

1. Usmjernik je uređaj koji usmjerava podatkovne pakete na njihovom putu kroz računalnu mrežu pri čemu se taj proces odvija na mrežnom sloju OSI modela. Usmjerivači su u osnovi namjenska računala, služi kao most između bežičnih veza.

2. Prihvate paket, pročitaju odredišnu adresu, nađu najbolji put prema odredištu i prosljeđuju paket prema cilju(Usmjeravaju ga)

IZVOĐENJE VJEŽBE

1.

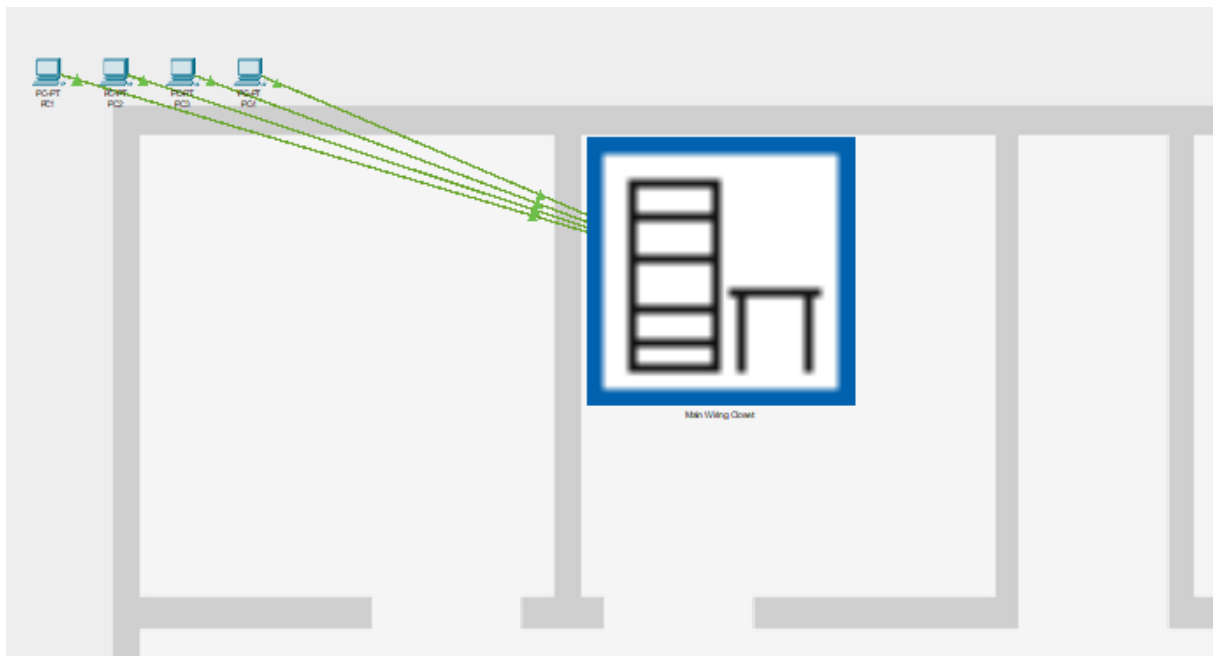| Uređaj	Sučelje	IP adresa	Mrežna maska
PC1	Fast Ethernet/ 3	192.168.10.2	255.255.255.248
PC2	Fast Ethernet /4	192.168.10.3	255.255.255.248
PC3	Fast Ethernet /2	192.168.10.10	255.255.255.248
PC4	Fast Ethernet /1	192.168.10.11	255.255.255.248
USMJERNIK(PC1-PC2)	Fast Ethernet /00	192.168.10.1	255.255.255.248
USMJERNIK(PC3-PC4)	Fast Ethernet/01	192.168.3.9	255.255.255.248

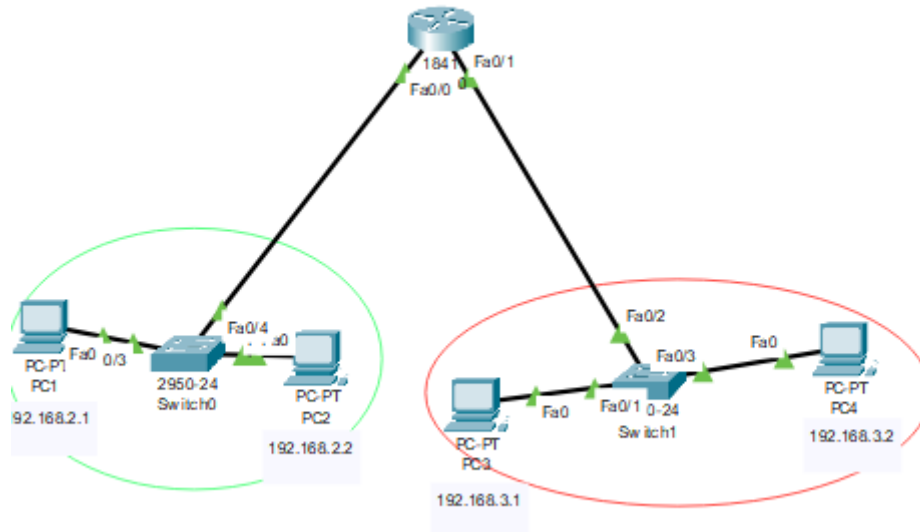|	
ort Status	☑ On
andwidth	◉ 100 Mbps ◯ 10 Mbps ☑ Auto
uplex	◯ Half Duplex ◉ Full Duplex ☑ Auto
AC Address	0001.6327.B301
IP Configuration	
IPv4 Address	192.168.10.1
Subnet Mask	255.255.255.248

3.

4.

5. ¸

OZNAKA	Označava
CE	The PT-ROUTER-NM-1CE features a single Ethernet port that can connect a LAN backbone which can also support either six PRI connections to aggregate ISDN lines, or 24 synchronous/asynchronous ports
CFE	The PT-ROUTER-NM-1CFE Module provides one Fast-Ethernet interface for use with copper media. Ideal for a wide range of LAN applications, the Fast Ethernet network modules support many internetworking features and standards. Single port network modules offer autosensing 10/100BaseTX or 100BaseFX Ethernet. The TX (copper) version supports virtual LAN (VLAN) deployment.
CGE	The single-port Cisco Gigabit Ethernet Network Module (part number PT-ROUTER-NM-1CGE) provides Gigabit Ethernet copper connectivity for access routers. The module is supported by the Cisco 2691, Cisco 3660, Cisco 3725, and Cisco 3745 series routers. This network module has one gigabit interface converter (GBIC) slot to carry any standard copper or optical Cisco GBIC.
FFE	The PT-ROUTER-NM-1FFE Module provides one Fast-Ethernet interface for use with fiber media. Ideal for a wide range of LAN applications, the Fast Ethernet network modules support many internetworking features and standards.

	Single port network modules offer autosensing 10/100BaseTX or 100BaseFX Ethernet.
FGE	The single-port Cisco Gigabit Ethernet Network Module (part number PT-ROUTER-NM-1FGE) provides Gigabit Ethernet copper connectivity for access routers. The module is supported by the Cisco 2691, Cisco 3660, Cisco 3725, and Cisco 3745 series routers. This network module has one gigabit interface converter (GBIC) slot to carry any standard copper or optical Cisco GBIC.

6.


```
Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Request timed out.
Reply from 192.168.10.10: bytes=32 time<1ms TTL=127
Reply from 192.168.10.10: bytes=32 time<1ms TTL=127
Reply from 192.168.10.10: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

7.

```
Router(config-if)#hostname R1
R1(config)#enable secret class
R1(config)#enable password class
The enable password you have chosen is the same as your enable secret.
This is not recommended.  Re-enter the enable password.
R1(config)#line console 0
R1(config-line)#password cisco
R1(config-line)#login
R1(config-line)#cisco
```

9.

```
R1(config)#enable secret class
R1(config)#enable password class
The enable password you have chosen is the same as your enable secret.
This is not recommended.  Re-enter the enable password.
R1(config)#line console 0
R1(config-line)#password cisco
R1(config-line)#login
R1(config-line)#cisco
                       ^
% Invalid input detected at '^' marker.

R1(config-line)#
```

Ctrl+F6 to exit CLI focus   Copy

```
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
ping 192.168.10.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/5 ms

Router#
```

Ctrl+F6 to exit CLI focus