

COMPUTER NETWORKS PRACTICUM
PRACTICUM 11



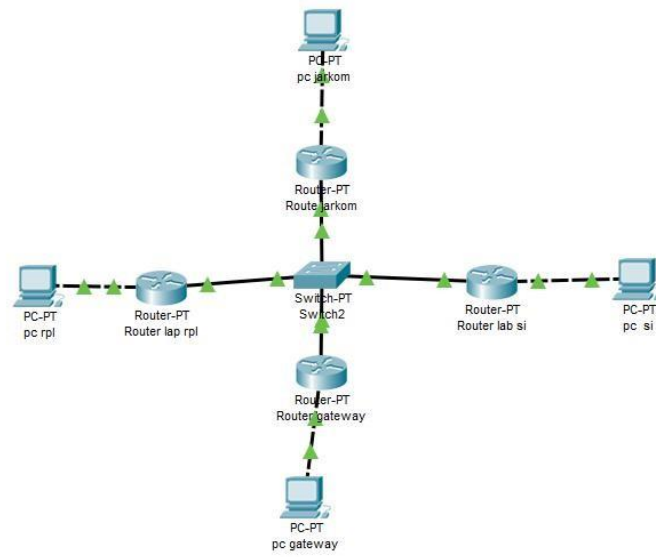
By:

GANNO TRIBUANA KURNIAJI

NIM: L200184092

INFORMATION TECHNOLOGY
FACULTY OF COMMUNICATION AND INFORMATICS
UNIVERSITY OF MUHAMMADIYAH SURAKARTA
2020

1. Activity



pc si

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address: 172.17.0.2

Subnet Mask: 255.255.255.0

Default Gateway: 172.17.0.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::20B:BEFF:FECC:E929

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MDS

Username:

Password:

☐ Top

Router lab si

Physical Config CLI Attributes

FastEthernet0/0

Port Status: ☒ On

Bandwidth: ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address: 0001.9768.12DC

IP Configuration

IP Address: 172.15.0.2

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)#
```

☐ Top

Router lab si

Physical Config CLI Attributes

IOS Command Line Interface

```
% Invalid input detected at '^' marker.

Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
        inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

      172.15.0.0/24 is subnetted, 1 subnets
C       172.15.0.0 is directly connected, FastEthernet0/0
R       172.16.0.0/16 [120/1] via 172.15.0.1, 00:00:20, FastEthernet0/0
      172.17.0.0/24 is subnetted, 1 subnets
C       172.17.0.0 is directly connected, FastEthernet1/0
R       172.18.0.0/16 [120/1] via 172.15.0.3, 00:00:05, FastEthernet0/0
R       172.19.0.0/16 [120/1] via 172.15.0.4, 00:00:25, FastEthernet0/0

Router#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

Routejarkom

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0,
changed state to up

jarkom>en
jarkom#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
        inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

      172.15.0.0/24 is subnetted, 1 subnets
C       172.15.0.0 is directly connected, FastEthernet0/0
      172.16.0.0/24 is subnetted, 1 subnets
C       172.16.0.0 is directly connected, FastEthernet1/0
R       172.17.0.0/16 [120/1] via 172.15.0.2, 00:00:06, FastEthernet0/0
R       172.18.0.0/16 [120/1] via 172.15.0.3, 00:00:07, FastEthernet0/0
R       172.19.0.0/16 [120/1] via 172.15.0.4, 00:00:22, FastEthernet0/0

jarkom#
```

Ctrl+F6 to exit CLI focus

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Router lap rpl

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0,
changed state to up

Router>en
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
        inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

      172.15.0.0/24 is subnetted, 1 subnets
C       172.15.0.0 is directly connected, FastEthernet0/0
R       172.16.0.0/16 [120/1] via 172.15.0.1, 00:00:13, FastEthernet0/0
R       172.17.0.0/16 [120/1] via 172.15.0.2, 00:00:22, FastEthernet0/0
      172.18.0.0/24 is subnetted, 1 subnets
C       172.18.0.0 is directly connected, FastEthernet1/0
R       172.19.0.0/16 [120/1] via 172.15.0.4, 00:00:11, FastEthernet0/0

Router#
```

Ctrl+F6 to exit CLI focus

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Router gateway

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0,
changed state to up

Router>en
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
        inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

      172.15.0.0/24 is subnetted, 1 subnets
C       172.15.0.0 is directly connected, FastEthernet0/0
R       172.16.0.0/16 [120/1] via 172.15.0.1, 00:00:23, FastEthernet0/0
R       172.17.0.0/16 [120/1] via 172.15.0.2, 00:00:04, FastEthernet0/0
R       172.18.0.0/16 [120/1] via 172.15.0.3, 00:00:06, FastEthernet0/0
      172.19.0.0/24 is subnetted, 1 subnets
C       172.19.0.0 is directly connected, FastEthernet1/0

Router#
```

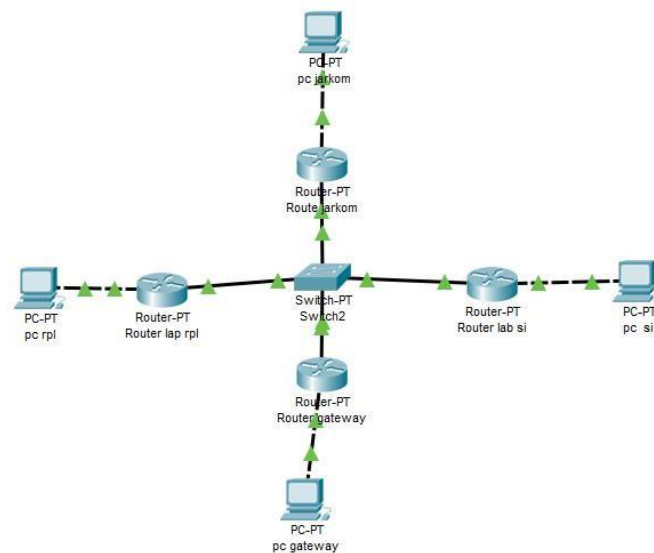
Ctrl+F6 to exit CLI focus

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☐ Top

```
pc si
Physical Config Desktop Programming Attributes
Command Prompt
Reply from 172.19.0.2: bytes=32 time<1ms TTL=126
Ping statistics for 172.19.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms
C:\>ping 172.16.0.2
Pinging 172.16.0.2 with 32 bytes of data:
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Ping statistics for 172.16.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 172.17.0.2
Pinging 172.17.0.2 with 32 bytes of data:
Reply from 172.17.0.2: bytes=32 time<1ms TTL=128
Reply from 172.17.0.2: bytes=32 time=19ms TTL=128
Reply from 172.17.0.2: bytes=32 time=12ms TTL=128
Reply from 172.17.0.2: bytes=32 time<1ms TTL=128
Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 19ms, Average = 7ms
☒ Top
```

2. Assignment



pc si

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.17.0.2

Subnet Mask 255.255.255.0

Default Gateway 172.17.0.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::20B:BEFF:FECC:E929

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication MDS

Username

Password

Top

Router lab si

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.9768.12DC

IP Configuration

IP Address 172.15.0.2

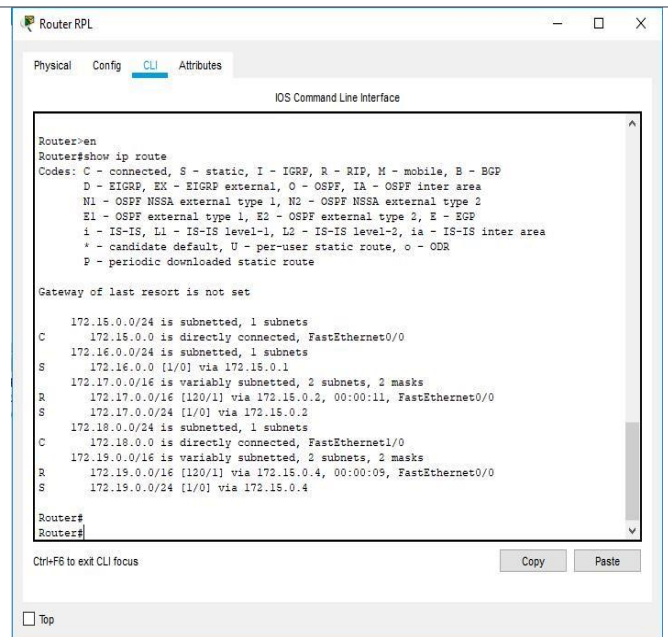
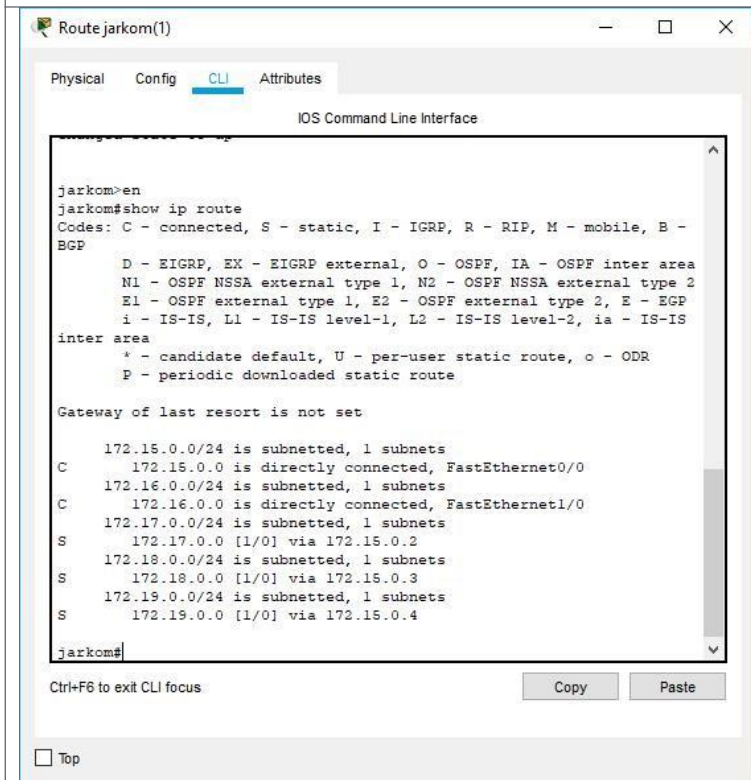
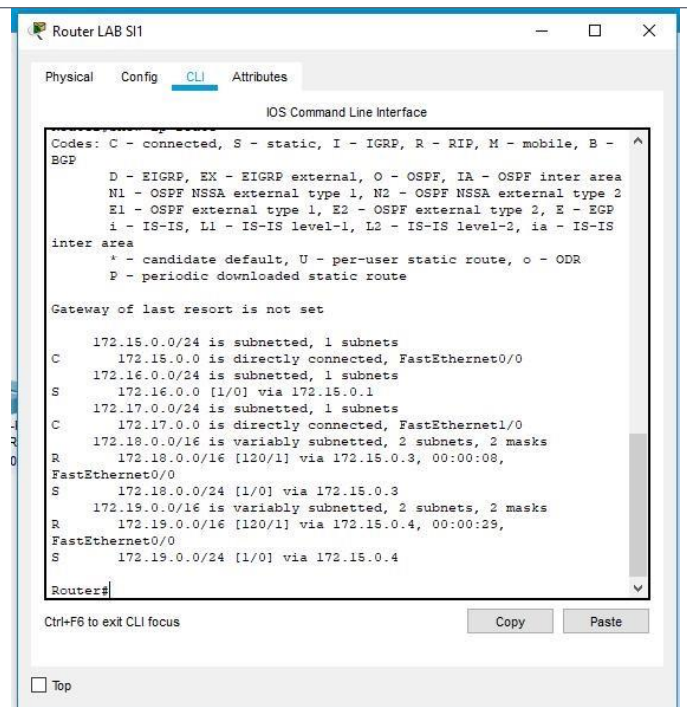
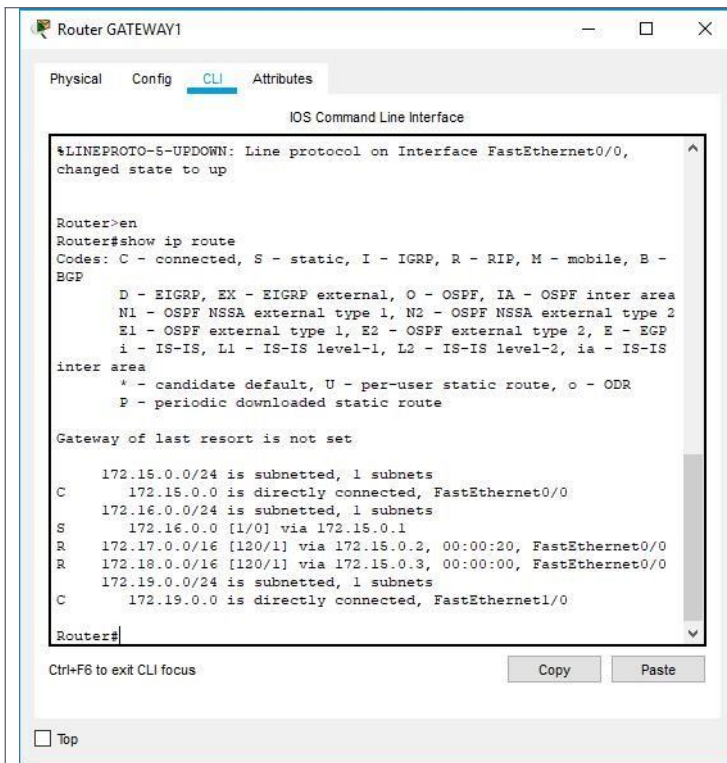
Subnet Mask 255.255.255.0

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)#
```

Top



Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.19.0.2

Pinging 172.19.0.2 with 32 bytes of data:

Request timed out.
Reply from 172.19.0.2: bytes=32 time<1ms TTL=126
Reply from 172.19.0.2: bytes=32 time=11ms TTL=126
Reply from 172.19.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.19.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 3ms

C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

Reply from 172.17.0.2: bytes=32 time=8ms TTL=128
Reply from 172.17.0.2: bytes=32 time=23ms TTL=128
Reply from 172.17.0.2: bytes=32 time=7ms TTL=128
Reply from 172.17.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 23ms, Average = 9ms

C:\>ping 172.16.0.2

Pinging 172.16.0.2 with 32 bytes of data:
```