LAPORAN PRAKTIKUM 10

Jaringan Komputer

Disusun Oleh :

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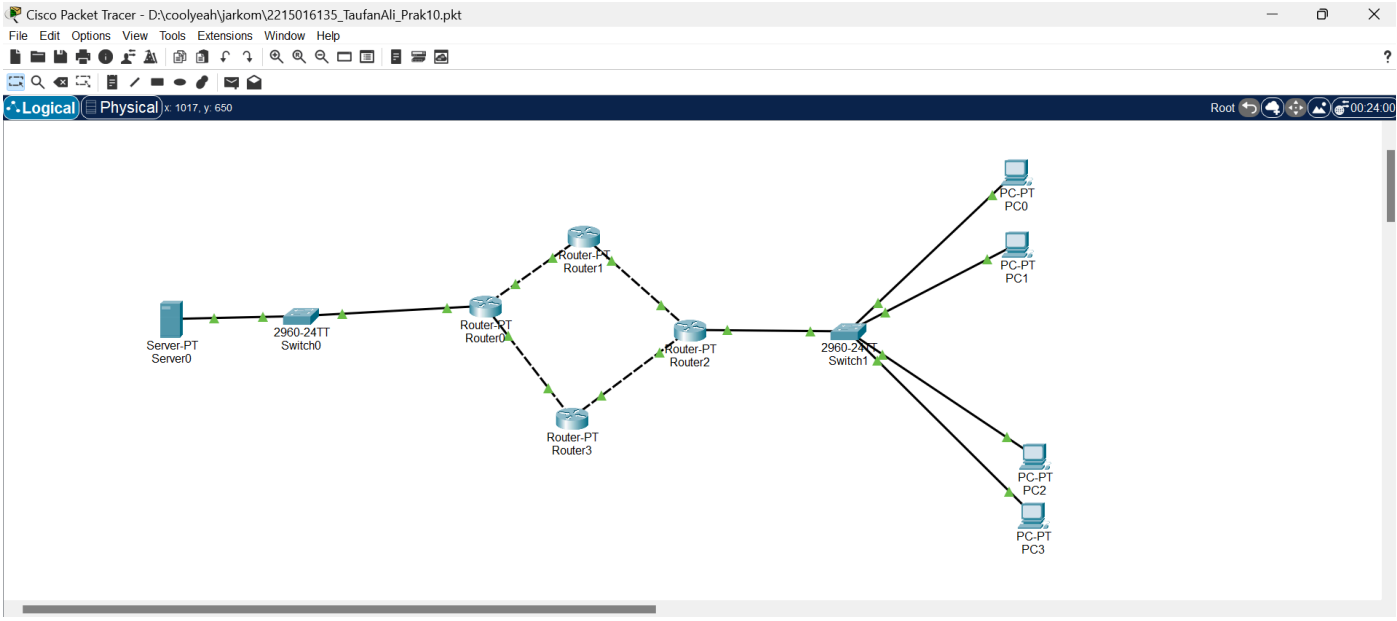
PROGRAM STUDI SISTEM INFORMASI

FAKULTAS SAINS DAN TEKNOLOGI TERAPAN

UNIVERSITAS AHMAD DAHLAN

2024

1. Buat jaringan dengan topologi berikut :

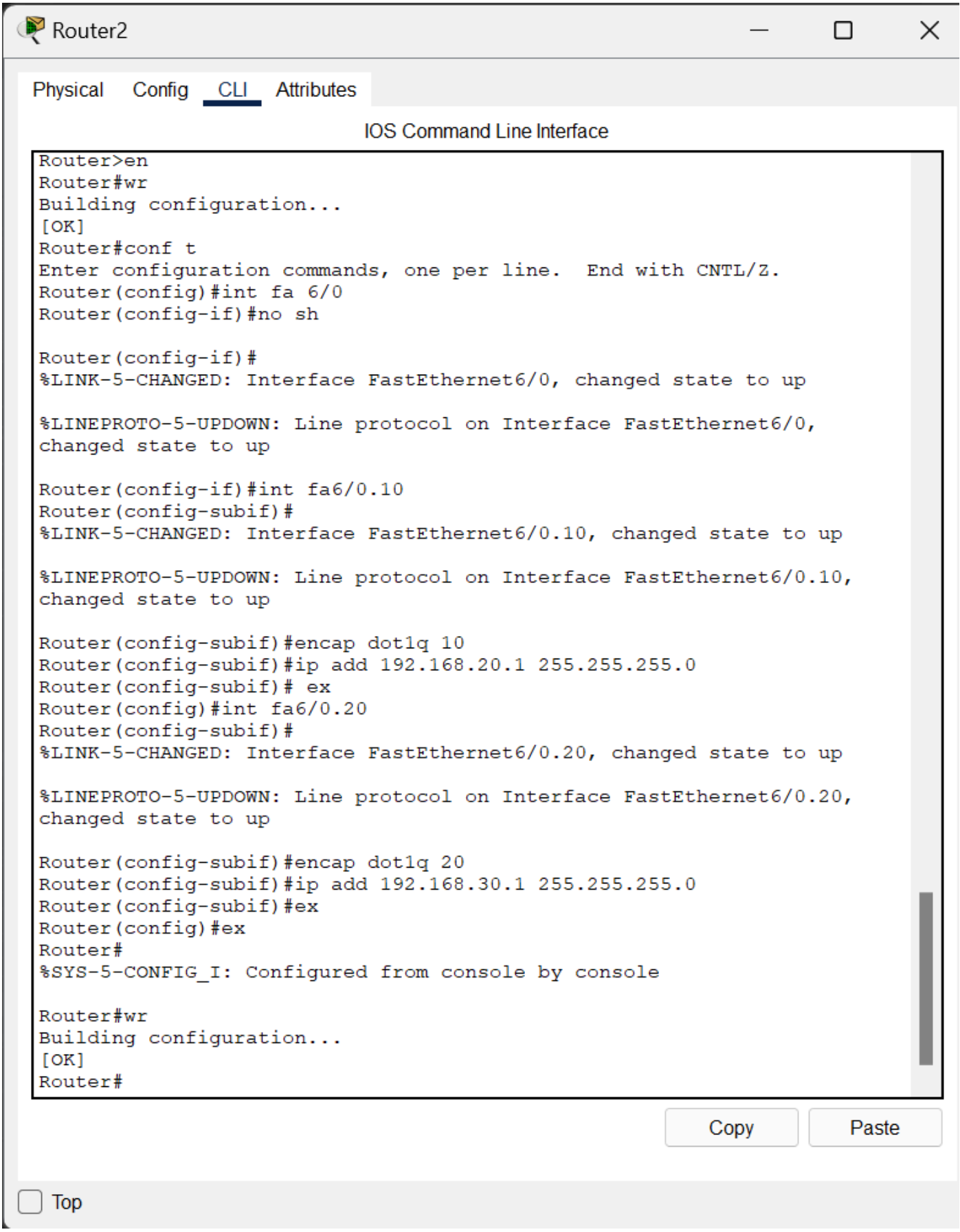


2. Buat vlan pada switch1 dengan keterangan sebagai berikut :

```
Switch#show vlan

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Fa0/1, 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, Fa0/22, Fa0/23,
Fa0/24
                                                 Gig0/1, Gig0/2
10   SBTI                              active    Fa0/2, Fa0/3
20   PSI                               active    Fa0/4, Fa0/5
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
```

3. Lakukan setting pada tiap tiap router untuk memberikan ip address:



Router0

Physical Config CLI Attributes

IOS Command Line Interface

```
Press RETURN to get started!



Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa6/0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet6/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet6/0,
changed state to up

Router(config-if)#ip add 192.168.10.1 255.255.255.0
Router(config-if)#ex
Router(config)#int fa0/0
Router(config-if)#ip add 100.100.100.1 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

Router(config-if)#ex
Router(config)#int fa1/0
Router(config-if)#ip add 100.100.100.5 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

Router#wr
Building configuration...
[OK]
Router#
```

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Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
         --- System Configuration Dialog ---

Would you like to enter the initial configuration dialog?
[yes/no]:

Press RETURN to get started!



Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 100.100.100.2 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to
up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/0, changed state to up

Router(config-if)#ex
Router(config)#int fa1/0
Router(config-if)#ip add 100.100.100.13 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to
up

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

Router#wr
Building configuration...
[OK]
Router#
```

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Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 100.100.100.14 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up

Router(config-if)#ex
Router(config)#int fa1/0
Router(config-if)#ip add 100.100.100.9 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

Router#wr
Building configuration...
[OK]
Router#
```

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Router3

Physical Config CLI Attributes

IOS Command Line Interface

```
Would you like to enter the initial configuration dialog? [yes/no]: no


Press RETURN to get started!



Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 100.100.100.8 255.255.255.252
Bad mask /30 for address 100.100.100.8
Router(config-if)#ip add 100.100.100.10 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed
state to up

Router(config-if)#ex
Router(config)#int fa1/0
Router(config-if)#ip add 100.100.100.6 255.255.255.252
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

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

Router#wr
Building configuration...
[OK]
Router#
```

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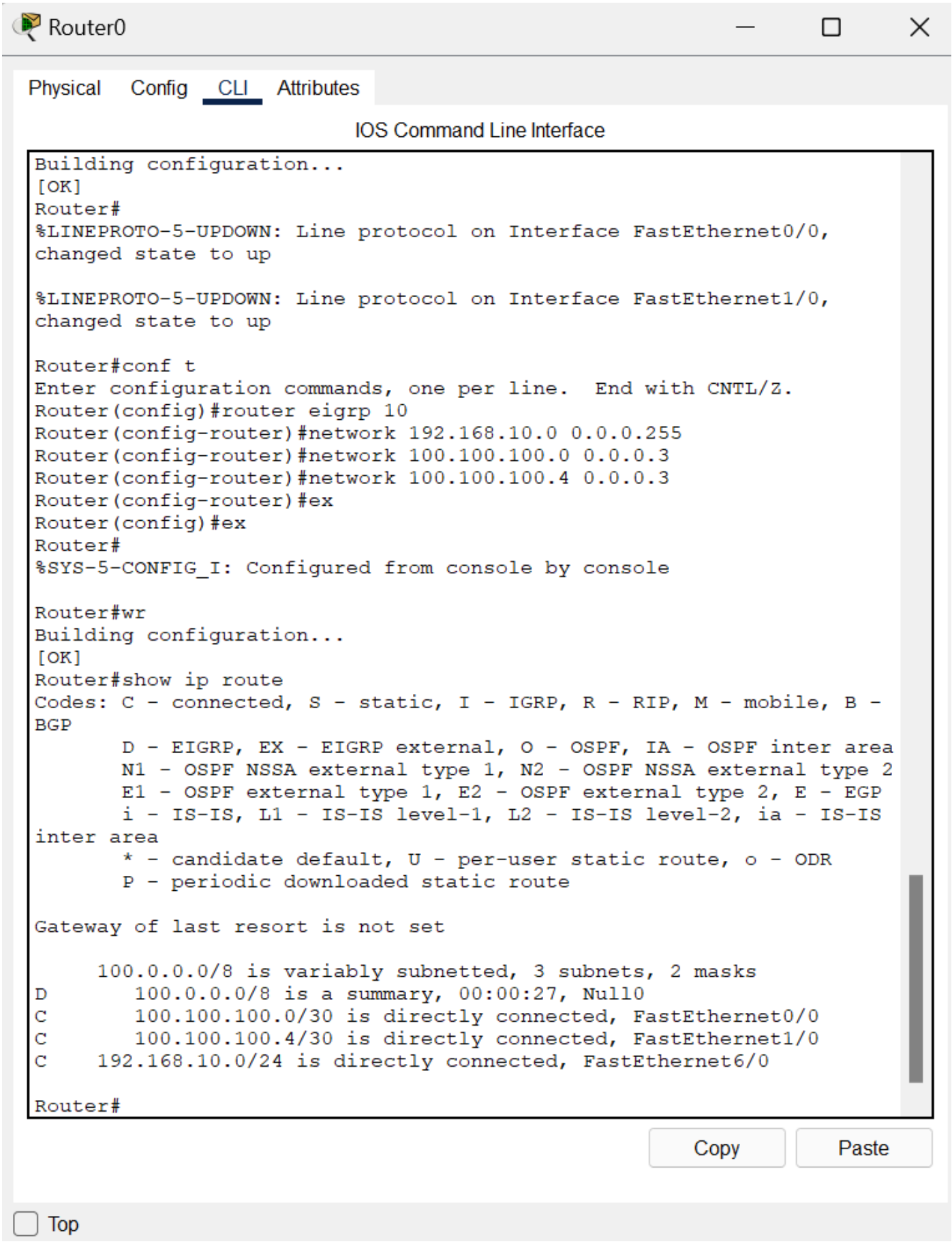
4. Setting EIGRP pada tiap router :



Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 10
Router(config-router)#network 100.100.100.0 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 10: Neighbor 100.100.100.1
(FastEthernet0/0) is up: new adjacency

Router(config-router)#network 100.100.100.12 0.0.0.3
Router(config-router)#ex
Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
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

     100.0.0.0/30 is subnetted, 3 subnets
C       100.100.100.0 is directly connected, FastEthernet0/0
D       100.100.100.4 [90/30720] via 100.100.100.1, 00:00:43,
FastEthernet0/0
C       100.100.100.12 is directly connected, FastEthernet1/0
D    192.168.10.0/24 [90/30720] via 100.100.100.1, 00:00:43,
FastEthernet0/0

Router#
```

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Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
up

Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 10
Router(config-router)#network 192.168.20.0 0.0.0.255
Router(config-router)#network 192.168.30.0 0.0.0.255
Router(config-router)#network 100.100.100.12 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 10: Neighbor 100.100.100.13 (FastEthernet0/0) is up:
new adjacency

Router(config-router)#network 100.100.100.8 0.0.0.3
Router(config-router)#ex
Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
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

     100.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
D       100.0.0.0/8 is a summary, 00:00:34, Null0
D       100.100.100.0/30 [90/30720] via 100.100.100.13, 00:00:33, FastEthernet0/0
D       100.100.100.4/30 [90/33280] via 100.100.100.13, 00:00:33, FastEthernet0/0
C       100.100.100.8/30 is directly connected, FastEthernet1/0
C       100.100.100.12/30 is directly connected, FastEthernet0/0
D    192.168.10.0/24 [90/33280] via 100.100.100.13, 00:00:33, FastEthernet0/0
C    192.168.20.0/24 is directly connected, FastEthernet6/0.10
C    192.168.30.0/24 is directly connected, FastEthernet6/0.20

Router#
```

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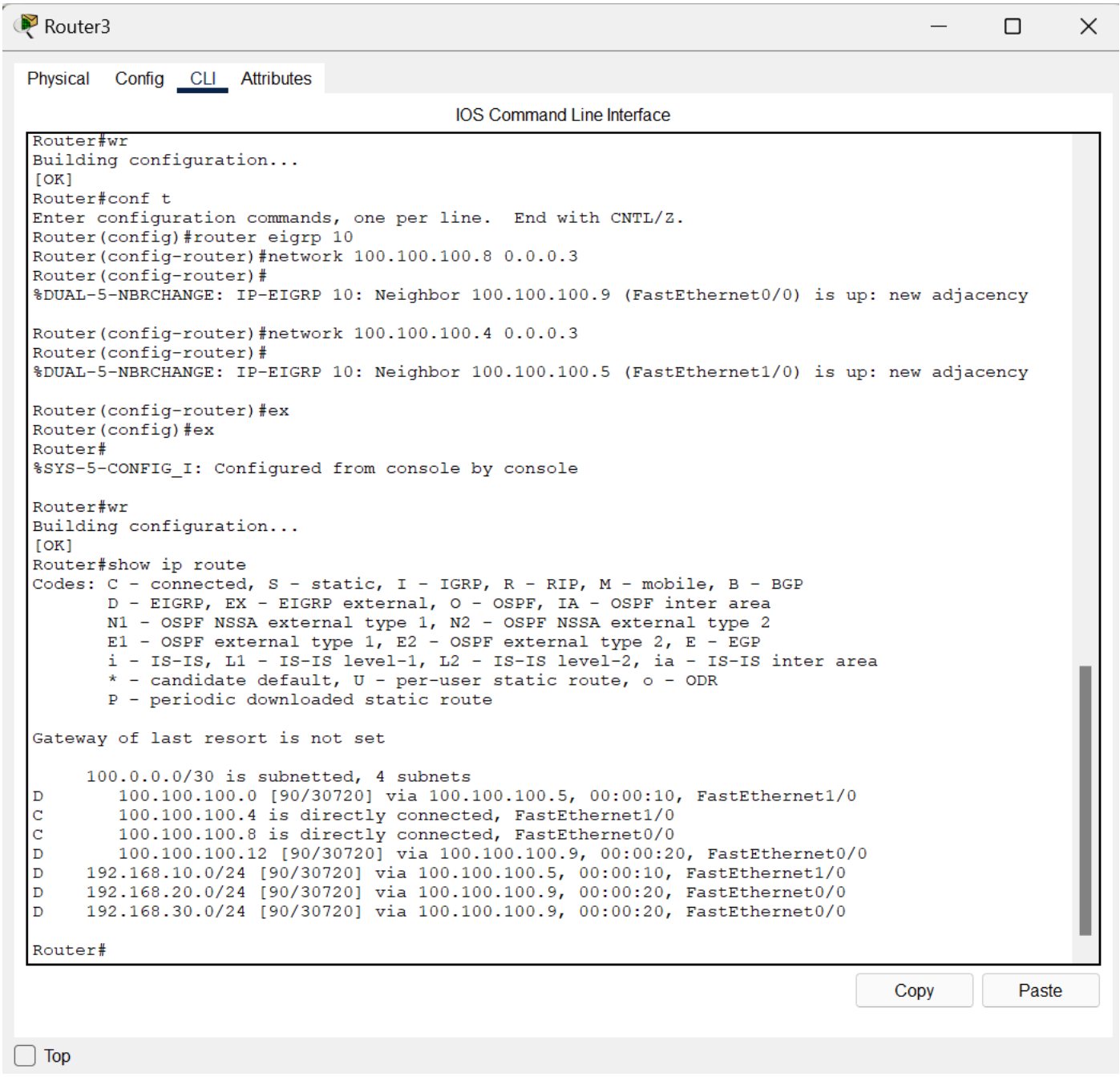
Router3
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router#wr
Building configuration...
[OK]
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 10
Router(config-router)#network 100.100.100.8 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 10: Neighbor 100.100.100.9 (FastEthernet0/0) is up: new adjacency
Router(config-router)#network 100.100.100.4 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 10: Neighbor 100.100.100.5 (FastEthernet1/0) is up: new adjacency
Router(config-router)#ex
Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#wr
Building configuration...
[OK]
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
100.0.0.0/30 is subnetted, 4 subnets
D 100.100.100.0 [90/30720] via 100.100.100.5, 00:00:10, FastEthernet1/0
C 100.100.100.4 is directly connected, FastEthernet1/0
C 100.100.100.8 is directly connected, FastEthernet0/0
D 100.100.100.12 [90/30720] via 100.100.100.9, 00:00:20, FastEthernet0/0
D 192.168.10.0/24 [90/30720] via 100.100.100.5, 00:00:10, FastEthernet1/0
D 192.168.20.0/24 [90/30720] via 100.100.100.9, 00:00:20, FastEthernet0/0
D 192.168.30.0/24 [90/30720] via 100.100.100.9, 00:00:20, FastEthernet0/0
Router#
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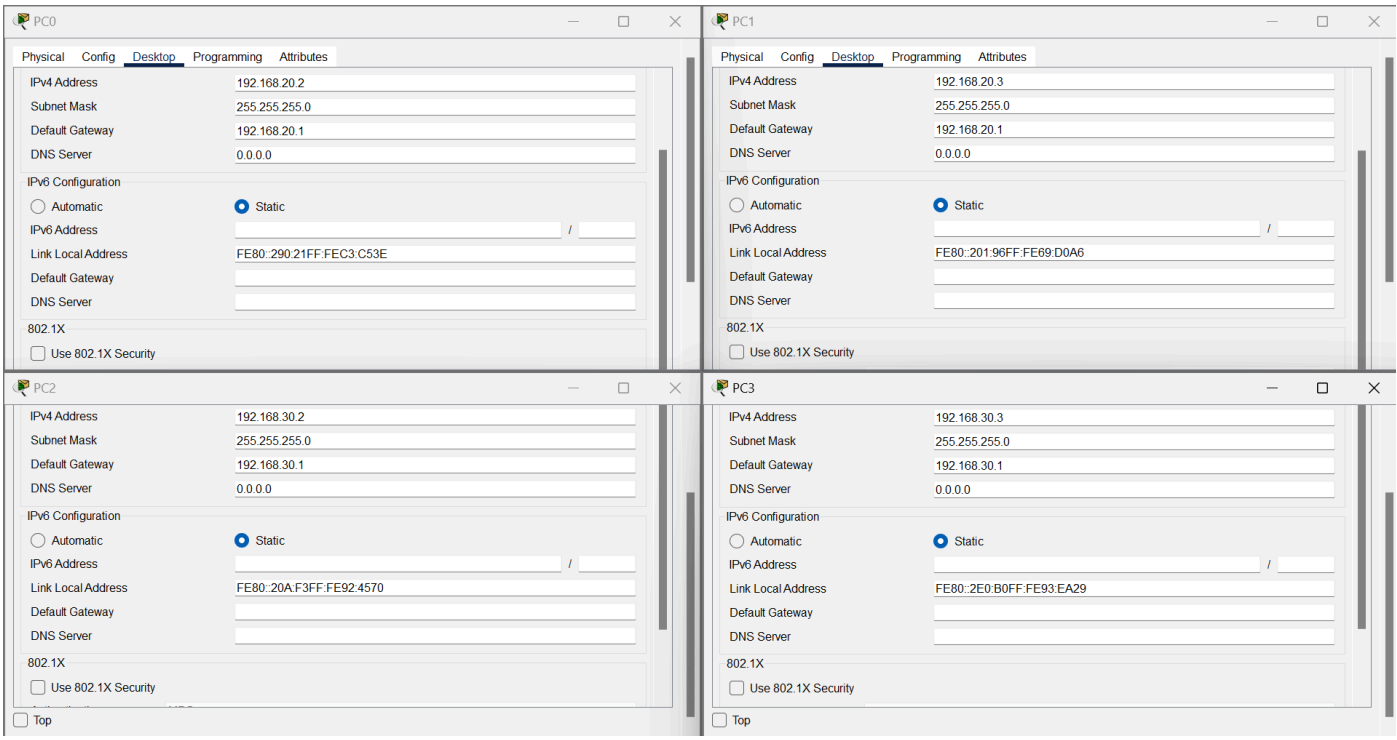
Top

5. Berikan IP pada tiap user dengan keterangan sebagai berikut



6. Lakukan tes koneksi :

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC1	Server0	ICMP		0.000	N	13	(edit)	(delete)
	Successful	PC2	Server0	ICMP		0.000	N	14	(edit)	(delete)
	Successful	PC3	Server0	ICMP		0.000	N	15	(edit)	(delete)