TP-Devoir-Routage Dynamique :initiation à BGP

By Mohamed Alaoui Mhamdi

Tâche 1 :

1-
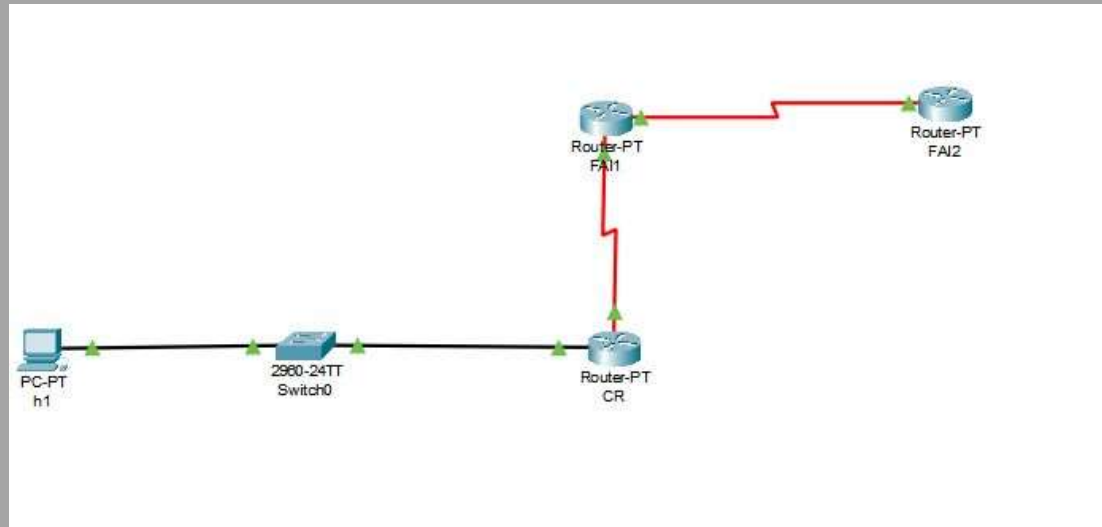
2-

3-
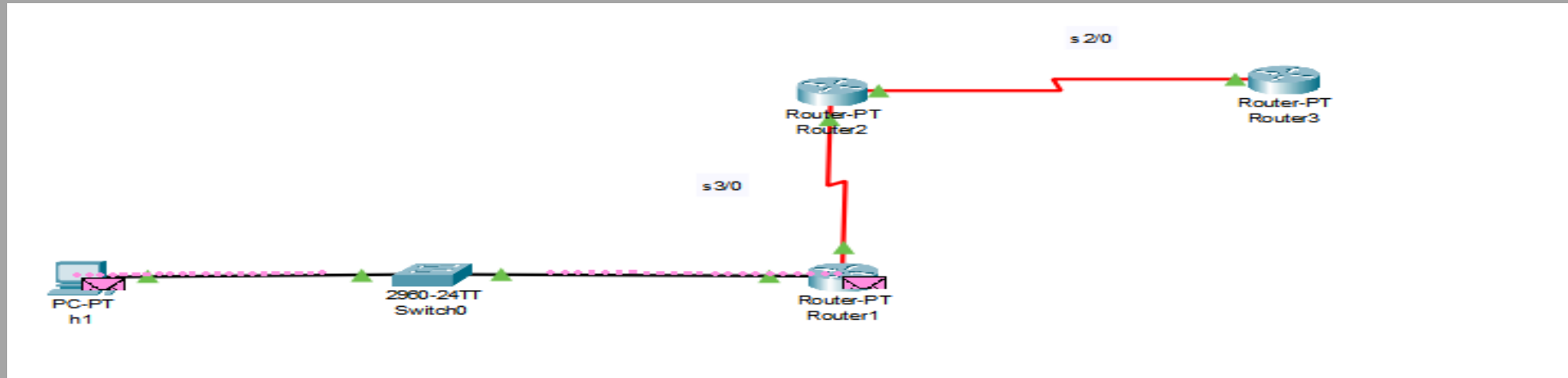
	Successful	Router1	Router2	ICMP		0.000	N	0	(edit)	(delete)
	Successful	Router2	Router3	ICMP		2.001	N	1	(edit)	(delete)
	Failed	Router1	Router3	ICMP		4.000	N	2	(edit)	(delete)

Le routeur CR est-il en mesure d'atteindre le routeur
FAI2 ? L'hôte client est-il
en mesure d'atteindre FAI1 ?

non et non

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FAI2 — IOS Command Line Interface

```
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#end
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
?Bad filename
%Error parsing filename (Bad file number)
Router#enable
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface loopback0

Router(config-if)#ip address 192.168.200.1 255.255.255.0
Router(config-if)#
```

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FAI1 — IOS Command Line Interface

```
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#end
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#hostnam FAI1
                  ^
% Invalid input detected at '^' marker.

Router#hostnamE FAI1
                   ^
% Invalid input detected at '^' marker.

Router#hostname FAI1
                  ^
% Invalid input detected at '^' marker.

Router#enable
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface loopback0

Router(config-if)#ip address 192.168.100.1 255.255.255.0
Router(config-if)#
```
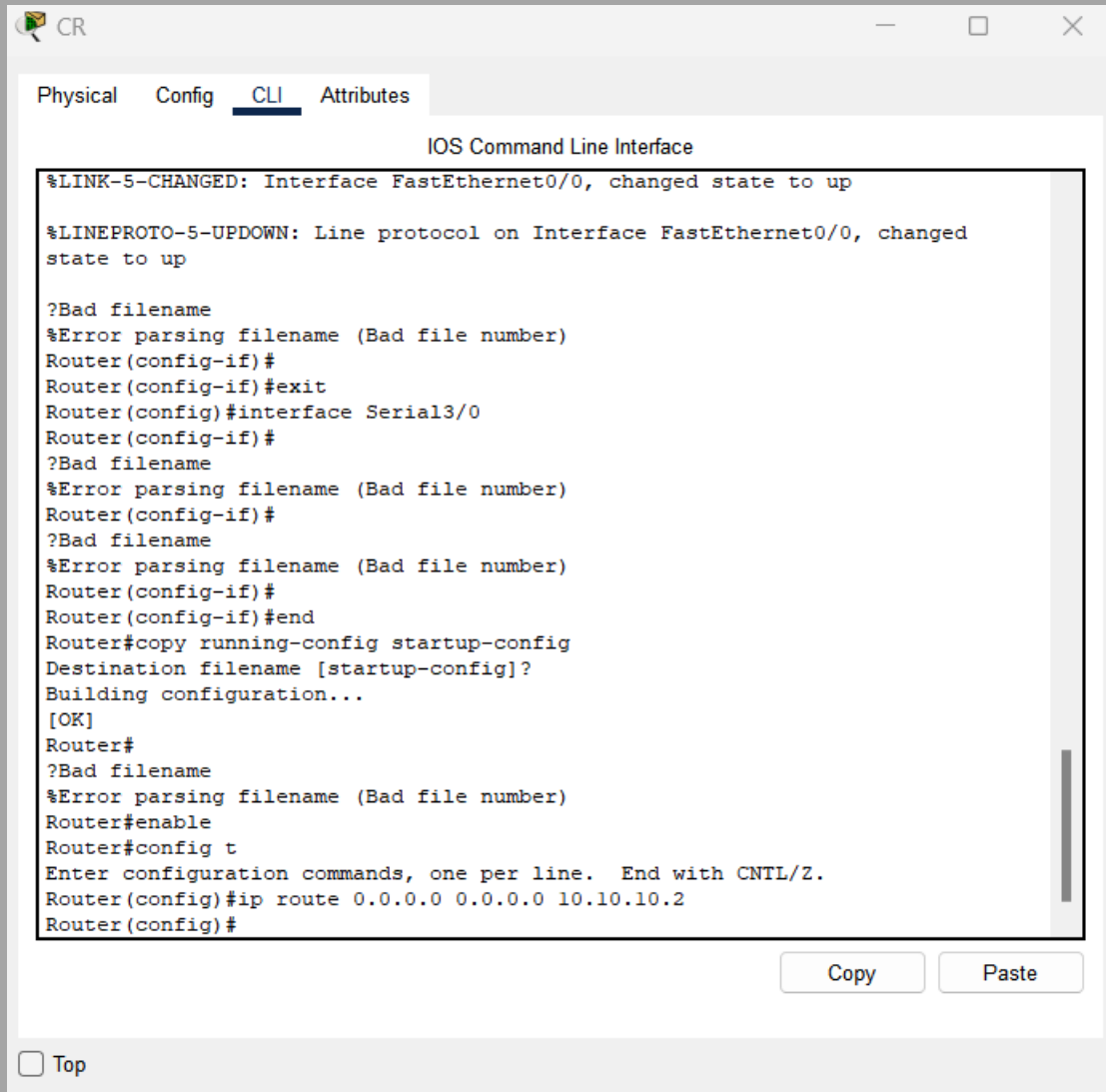
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Tâche 2 :

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```
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#end
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
?Bad filename
%Error parsing filename (Bad file number)
Router#enable
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.2
Router(config)#
```
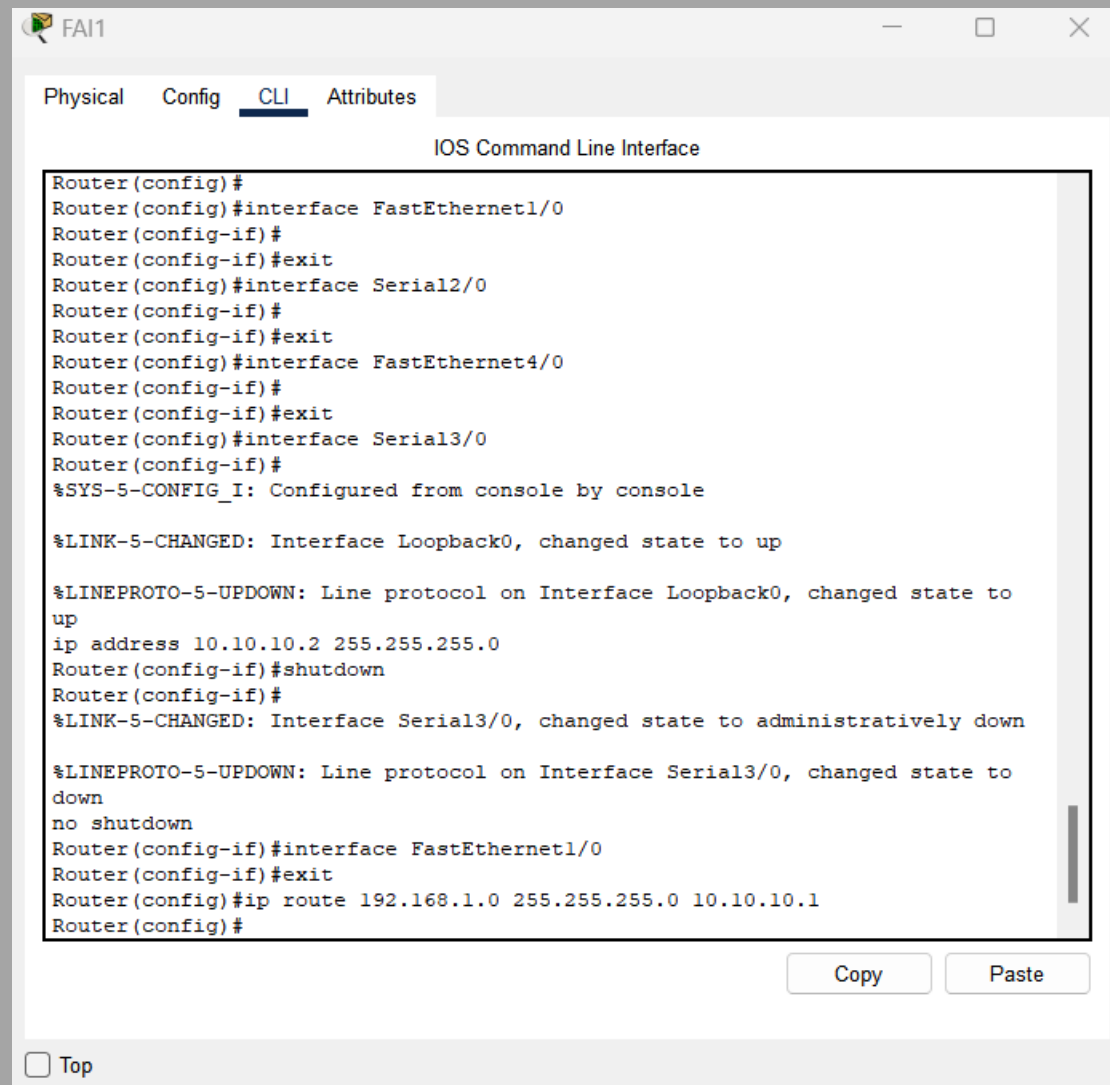
6)

```
Router(config)#
Router(config)#interface FastEthernet1/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet4/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console

%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to
up
ip address 10.10.10.2 255.255.255.0
Router(config-if)#shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to
down
no shutdown
Router(config-if)#interface FastEthernet1/0
Router(config-if)#exit
Router(config)#ip route 192.168.1.0 255.255.255.0 10.10.10.1
Router(config)#
```

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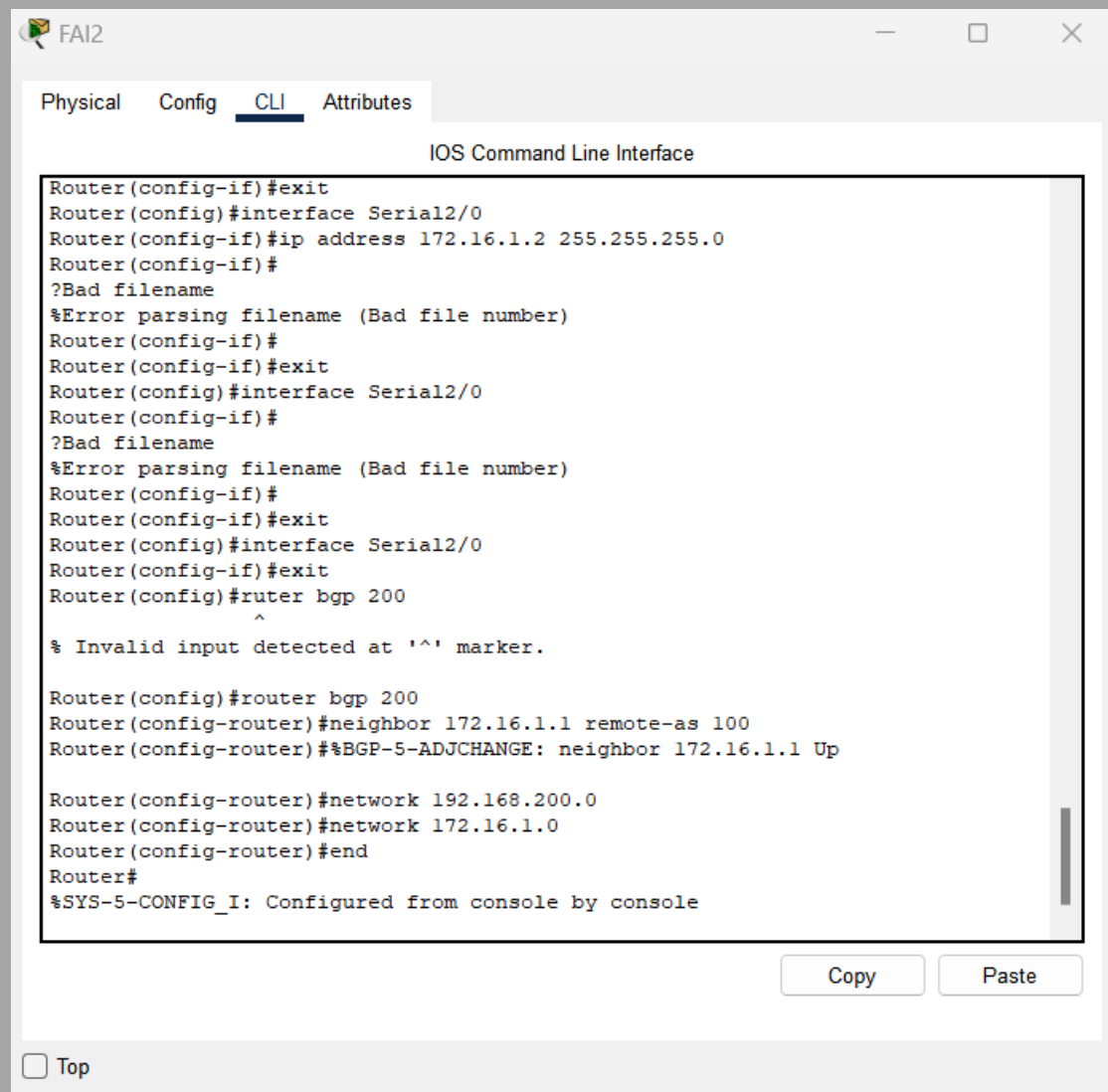| Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
🔴	Successful	h1	FAI1	ICMP	■	0.000	N	0	(edit)	

Tâche 3 :

8-

FAI1 — — □ ×

Physical Config CLI Attributes
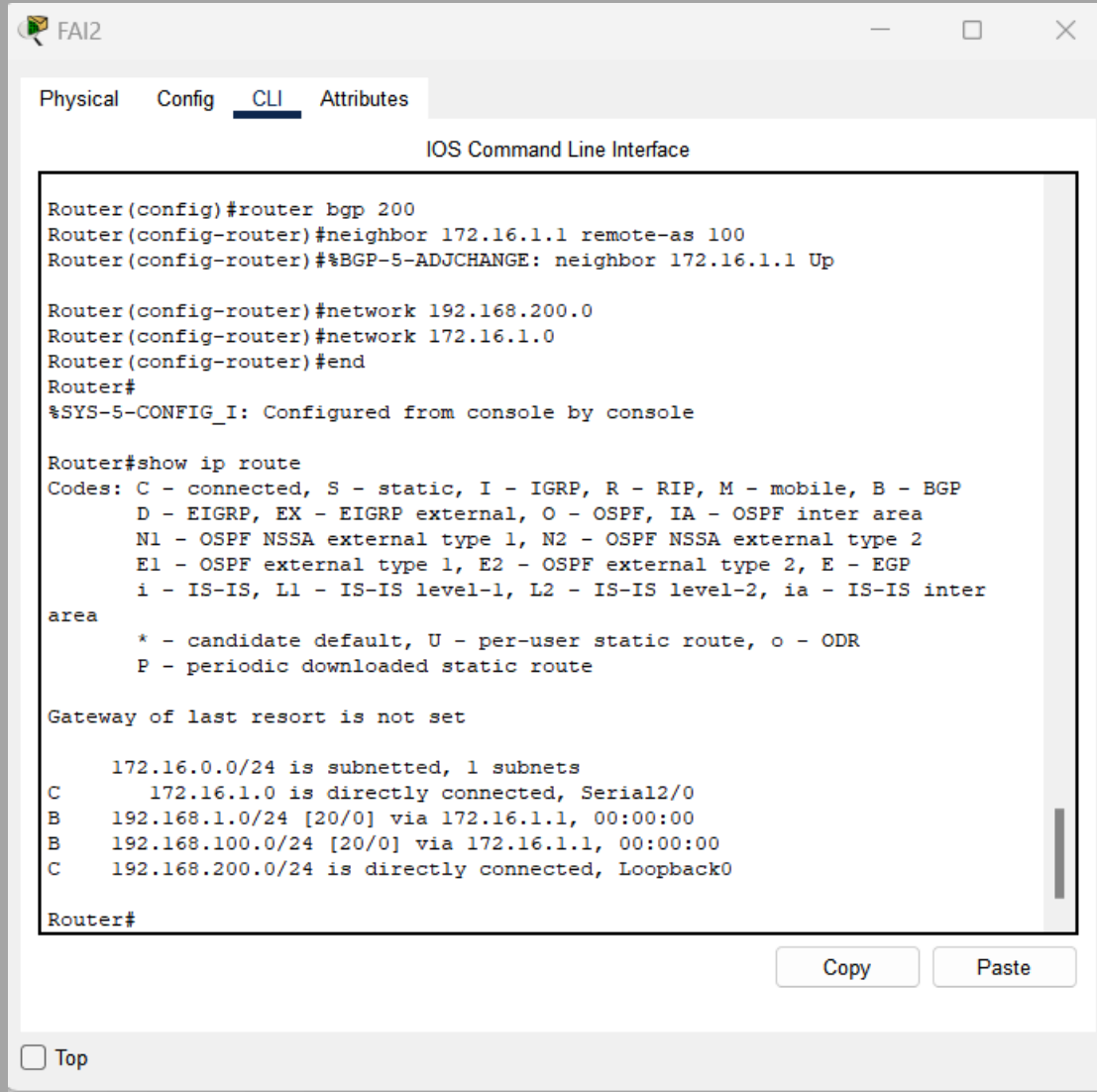
IOS Command Line Interface

```
?Bad filename
%Error parsing filename (Bad file number)
Router(config)#
Router(config)#interface Serial3/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#exit
Router(config)#router bgp 100
Router(config-router)#neighbor 172.16.1.2 remote-as 200
Router(config-router)#network 192.168.1.0
Router(config-router)#network 192.168.100.0
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

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```
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 172.16.1.2 255.255.255.0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
?Bad filename
%Error parsing filename (Bad file number)
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#exit
Router(config)#ruter bgp 200
                      ^
% Invalid input detected at '^' marker.

Router(config)#router bgp 200
Router(config-router)#neighbor 172.16.1.1 remote-as 100
Router(config-router)#%BGP-5-ADJCHANGE: neighbor 172.16.1.1 Up

Router(config-router)#network 192.168.200.0
Router(config-router)#network 172.16.1.0
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Tâche 4 :

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FAI2

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router(config)#router bgp 200
Router(config-router)#neighbor 172.16.1.1 remote-as 100
Router(config-router)#%BGP-5-ADJCHANGE: neighbor 172.16.1.1 Up

Router(config-router)#network 192.168.200.0
Router(config-router)#network 172.16.1.0
Router(config-router)#end
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

     172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, Serial2/0
B     192.168.1.0/24 [20/0] via 172.16.1.1, 00:00:00
B     192.168.100.0/24 [20/0] via 172.16.1.1, 00:00:00
C     192.168.200.0/24 is directly connected, Loopback0

Router#
```

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11-oui

12-B

14-oui

15-R2

b-

FAI1

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router(config-router)#neighbor 172.16.1.2 remote-as 200
Router(config-router)#network 192.168.1.0
Router(config-router)#network 192.168.100.0
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#%BGP-5-ADJCHANGE: neighbor 172.16.1.2 Up

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

     10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 is directly connected, Serial3/0
     172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, Serial2/0
S    192.168.1.0/24 [1/0] via 10.10.10.1
C    192.168.100.0/24 is directly connected, Loopback0
B    192.168.200.0/24 [20/0] via 172.16.1.2, 00:00:00

Router#
```
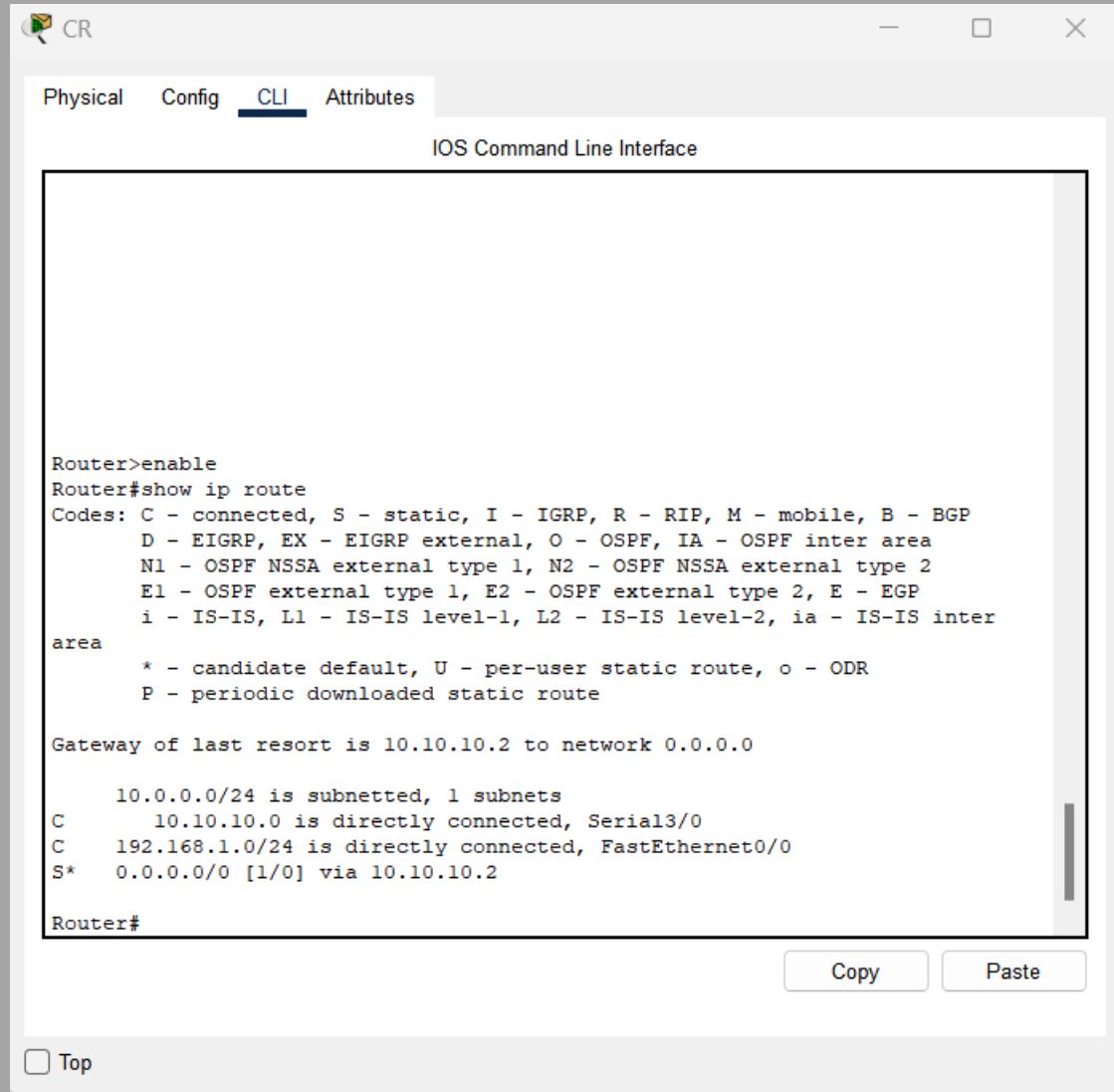
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16- 192.168.200.0

17-on routage statique

b-non

c-


```
Router>enable
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 10.10.10.2 to network 0.0.0.0

     10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 is directly connected, Serial3/0
C    192.168.1.0/24 is directly connected, FastEthernet0/0
S*   0.0.0.0/0 [1/0] via 10.10.10.2

Router#
```

20-
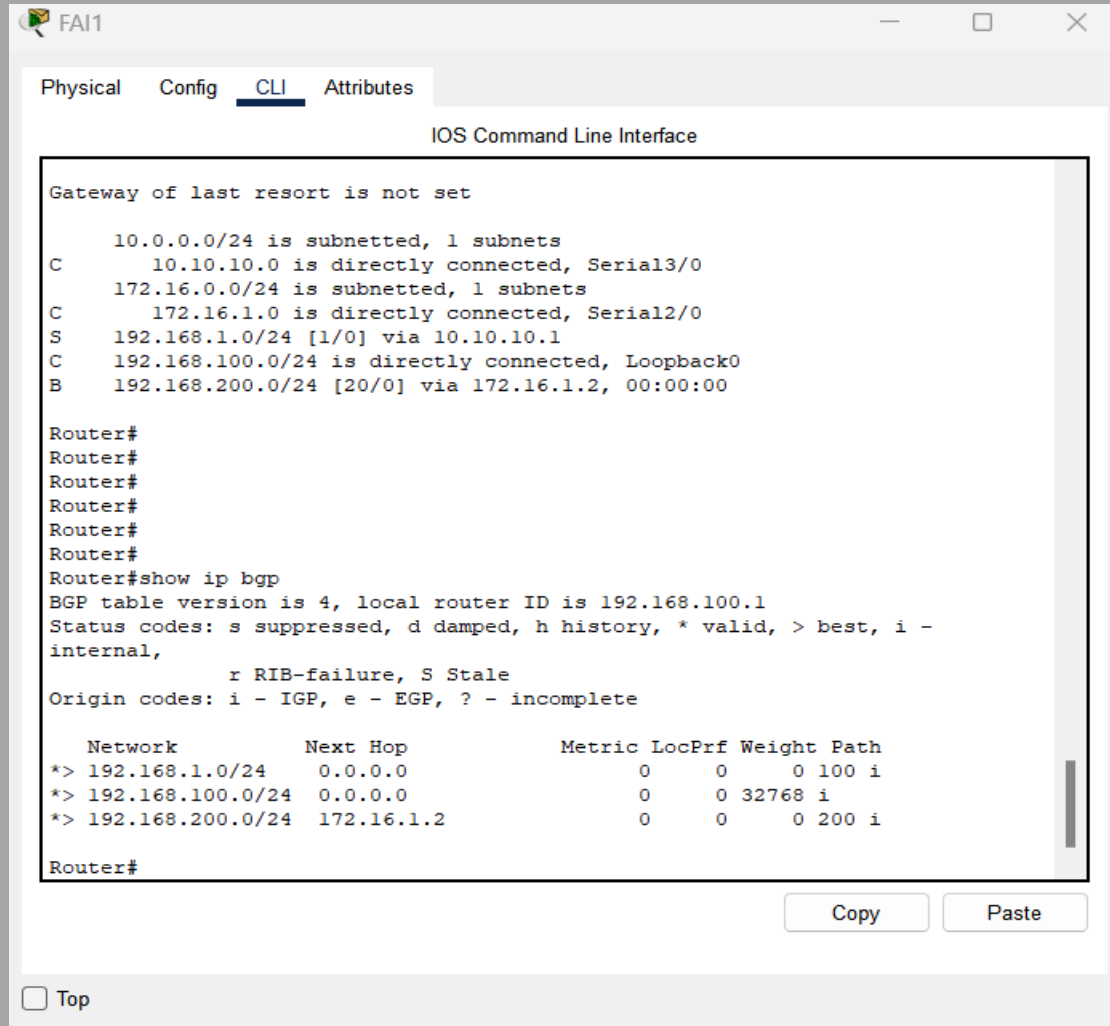
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete	
🔴	Successful	h1	FAI2	ICMP	🟩	0.000	N	0	(edit)	(delete)	

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Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete	
🔴	Successful	h1	FAI2	ICMP	🟩	0.000	N	0	(edit)	(delete)	
🔴	Successful	FAI2	h1	ICMP	🟪	0.000	N	1	(edit)	(delete)	

Tâche 6 :

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```
FAI1                                                        —  □  ✕

Physical   Config   CLI   Attributes

                    IOS Command Line Interface

Gateway of last resort is not set

     10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 is directly connected, Serial3/0
     172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, Serial2/0
S    192.168.1.0/24 [1/0] via 10.10.10.1
C    192.168.100.0/24 is directly connected, Loopback0
B    192.168.200.0/24 [20/0] via 172.16.1.2, 00:00:00

Router#
Router#
Router#
Router#
Router#
Router#
Router#show ip bgp
BGP table version is 4, local router ID is 192.168.100.1
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
            r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop          Metric LocPrf Weight Path
*> 192.168.1.0/24    0.0.0.0               0       0      0 100 i
*> 192.168.100.0/24  0.0.0.0               0          0 32768 i
*> 192.168.200.0/24  172.16.1.2            0       0      0 200 i

Router#

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```

24-par ce que on a un routage bgp entre FAI1 et FAI2

23-


```
FAI2                                          —    □    ✕

 Physical    Config    CLI    Attributes

                    IOS Command Line Interface

Press RETURN to get started.




Router>enable
Router#show ip bgp
BGP table version is 4, local router ID is 192.168.200.1
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
             r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop        Metric LocPrf Weight Path
*> 192.168.1.0/24    172.16.1.1          0      0      0 100 i
*> 192.168.100.0/24  172.16.1.1          0      0      0 100 i
*> 192.168.200.0/24  0.0.0.0             0             0 32768 i

Router#
```

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