



**IUS**  
INSTITUT  
UNIVERSITAIRE  
DES SCIENCES

**FACULTÉ DES SCIENCES ET DES TECHNOLOGIES  
(FST)**

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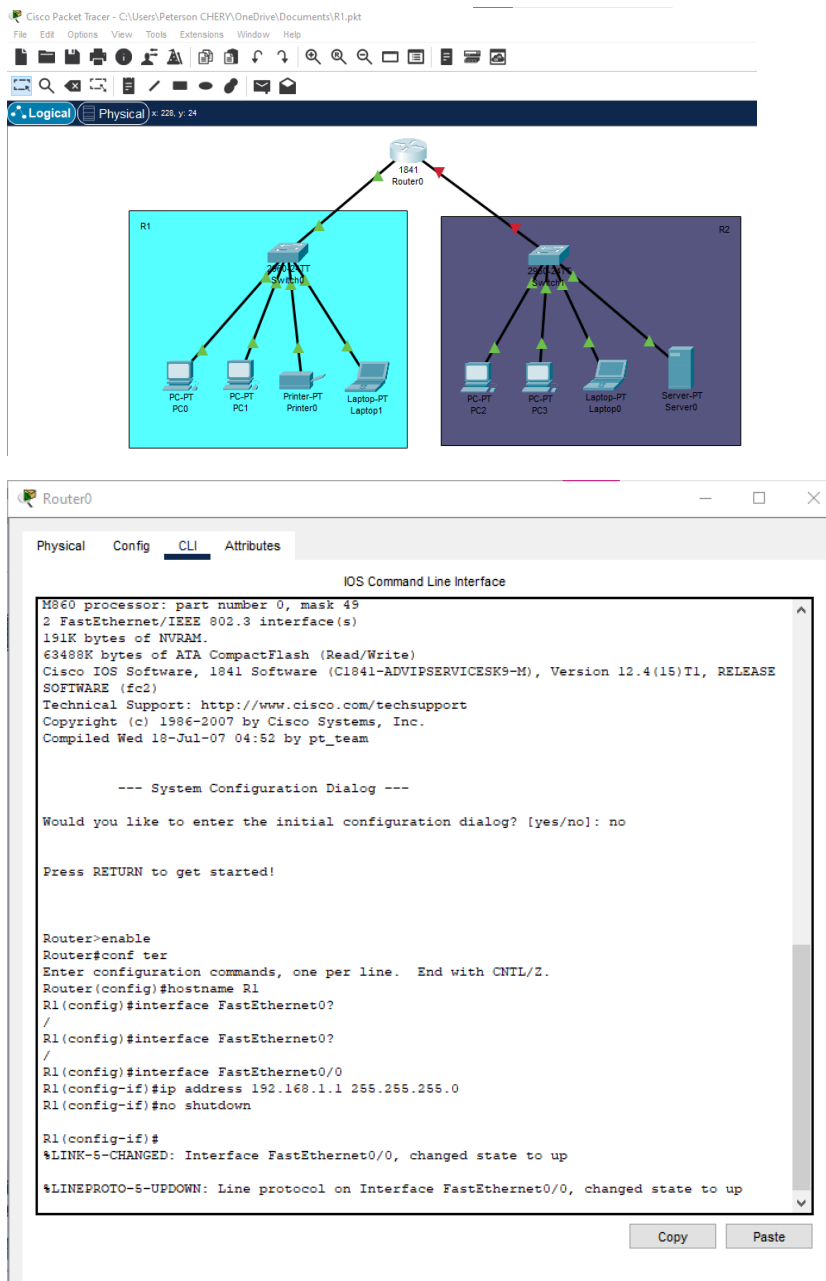
**Niveau :** **3<sup>ième</sup> année**

**Année :** **2023-2024**

**Le 17/11/2024**

# Exécution du TD

▪ Processus de configuration des adresses IP sur un commutateur et sur les interfaces d'un routeur, configuration d'un serveur web et vérification de la connectivité et accès aux services http/https via du navigateur d'un PC.



Router0

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>enable
Router#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R1
R1(config)#interface FastEthernet0?
/
R1(config)#interface FastEthernet0?
/
R1(config)#interface FastEthernet0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown

R1(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

R1(config-if)#exit
R1(config)#interface FastEthernet0/1
R1(config-if)#ip address 192.168.2.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

R1(config-if)#exit
R1(config)#
R1(config)#

```

Copy Paste

```

R1(config-if)#exit
R1(config)#
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ip interface brief

```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/0	192.168.1.1	YES	manual	up	up
FastEthernet0/1	192.168.2.1	YES	manual	up	up
Vlan1	unassigned	YES	unset	administratively down	down

```

R1#show arp

```

Protocol	Address	Age (min)	Hardware Addr	Type	Interface
Internet	192.168.1.1	-	000A.F39B.AA01	ARPA	FastEthernet0/0
Internet	192.168.2.1	-	000A.F39B.AA02	ARPA	FastEthernet0/1

R1#

Copy Paste

Physical Config **CLI** Attributes

## IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch>enable
Switch#conf ter
Enter configuration commands, one per line. End with CNIL/Z.
Switch(config)#hostname S1
S1(config)#interface vlan 1
S1(config-if)#ip address 192.168.1.2 255.255.255.0
S1(config-if)#no shutdown

S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S1(config-if)#exit
S1(config)#
```

Copy

Paste

Switch1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch>enable
Switch#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S2
S2(config)#interface vlan 1
S2(config-if)#ip address 192.168.2.2 255.255.255.0
S2(config-if)#no shutdown

S2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S2(config-if)#exit
S2(config)#
```

Copy Paste

Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

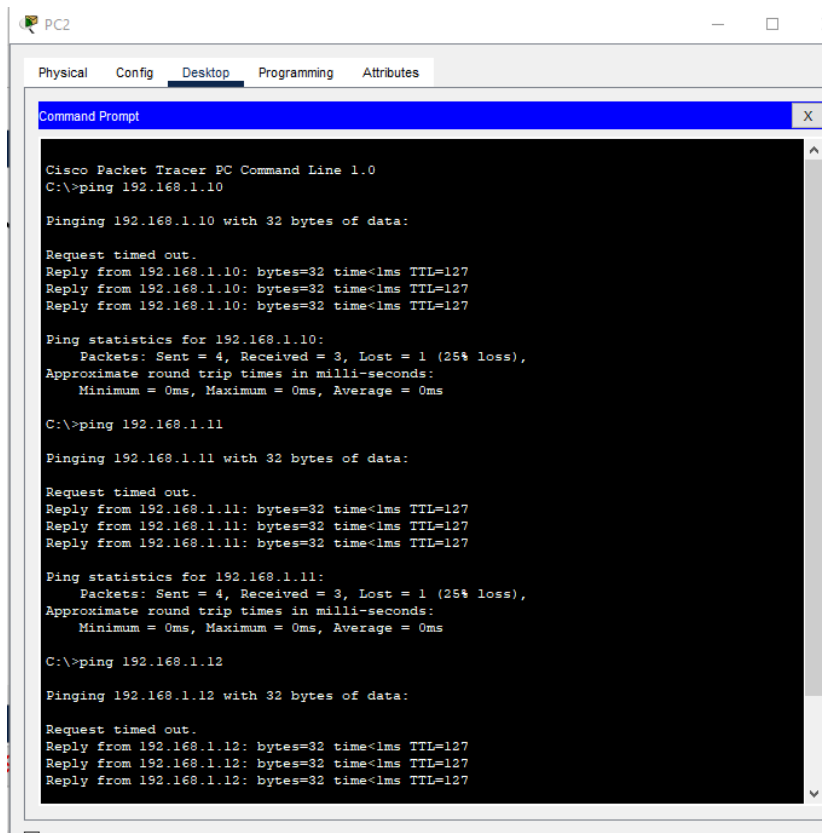
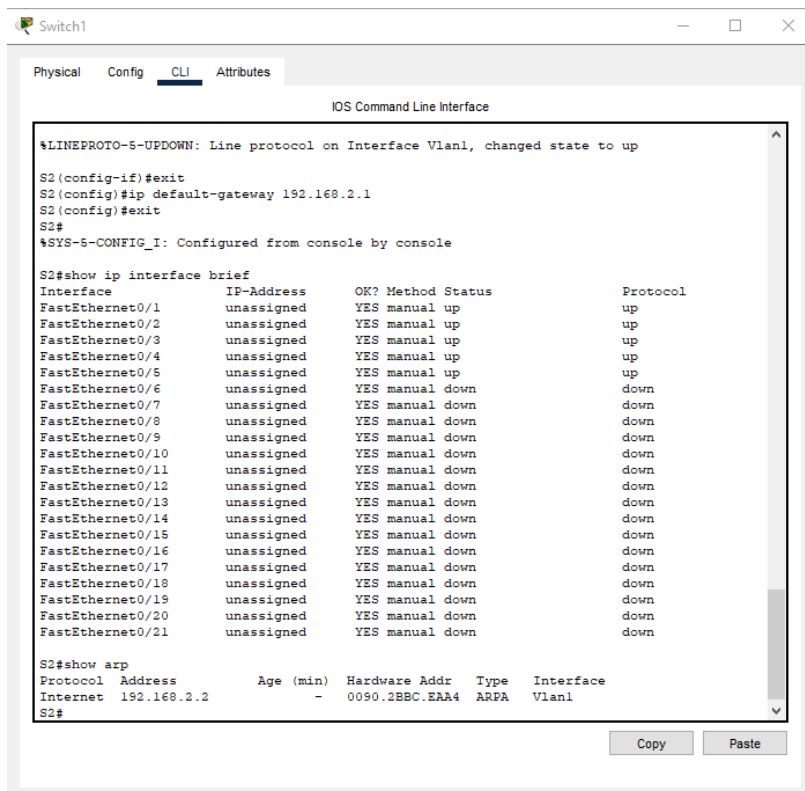
```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

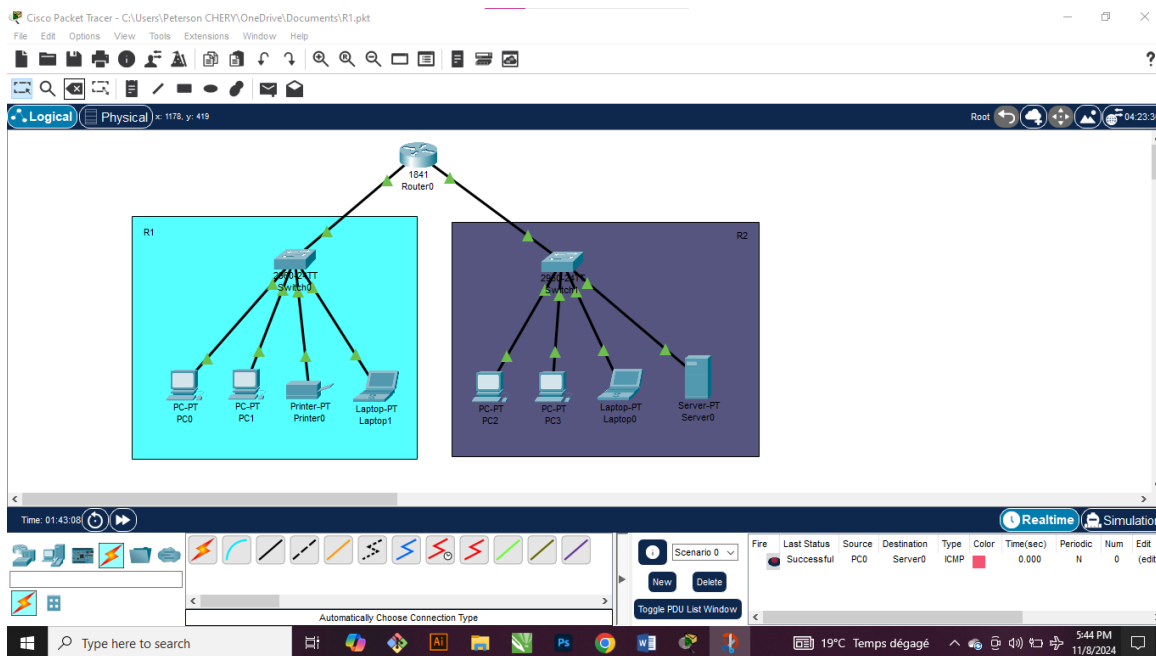
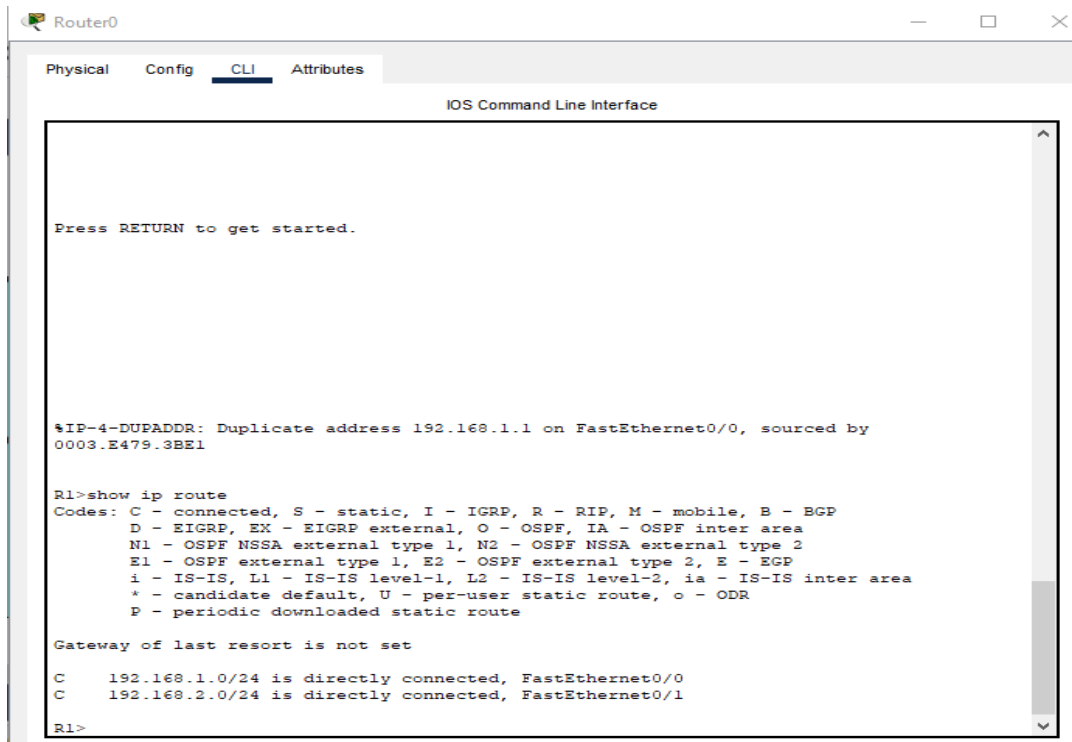
S1(config-if)#exit
S1(config)#ip default-gateway 192.168.1.1
S1(config)#
S1#
%SYS-5-CONFIG_I: Configured from console by console

S1#show ip interface brief
Interface      IP-Address      OK? Method Status      Protocol
FastEthernet0/1 unassigned      YES manual up          up
FastEthernet0/2 unassigned      YES manual up          up
FastEthernet0/3 unassigned      YES manual up          up
FastEthernet0/4 unassigned      YES manual up          up
FastEthernet0/5 unassigned      YES manual up          up
FastEthernet0/6 unassigned      YES manual down        down
FastEthernet0/7 unassigned      YES manual down        down
FastEthernet0/8 unassigned      YES manual down        down
FastEthernet0/9 unassigned      YES manual down        down
FastEthernet0/10 unassigned      YES manual down        down
FastEthernet0/11 unassigned      YES manual down        down
FastEthernet0/12 unassigned      YES manual down        down
FastEthernet0/13 unassigned      YES manual down        down
FastEthernet0/14 unassigned      YES manual down        down
FastEthernet0/15 unassigned      YES manual down        down
FastEthernet0/16 unassigned      YES manual down        down
FastEthernet0/17 unassigned      YES manual down        down
FastEthernet0/18 unassigned      YES manual down        down
FastEthernet0/19 unassigned      YES manual down        down
FastEthernet0/20 unassigned      YES manual down        down
FastEthernet0/21 unassigned      YES manual down        down

S1#show arp
Protocol Address      Age (min) Hardware Addr  Type   Interface
Internet  192.168.1.2    -         0090.0C83.DC04  ARPA   Vlan1
S1#
```

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Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
S1>show interfaces status,  
^  
% Invalid input detected at '^' marker.  
S1>show interfacess status  
^  
% Invalid input detected at '^' marker.  
S1>show interface status  
^  
% Invalid input detected at '^' marker.  
S1>enable  
S1#show interfaces status
```

Port	Name	Status	Vlan	Duplex	Speed	Type
Fa0/1		connected	1	auto	auto	10/100BaseTX
Fa0/2		connected	1	auto	auto	10/100BaseTX
Fa0/3		connected	1	auto	auto	10/100BaseTX
Fa0/4		connected	1	auto	auto	10/100BaseTX
Fa0/5		connected	1	auto	auto	10/100BaseTX
Fa0/6		notconnect	1	auto	auto	10/100BaseTX
Fa0/7		notconnect	1	auto	auto	10/100BaseTX
Fa0/8		notconnect	1	auto	auto	10/100BaseTX
Fa0/9		notconnect	1	auto	auto	10/100BaseTX
Fa0/10		notconnect	1	auto	auto	10/100BaseTX
Fa0/11		notconnect	1	auto	auto	10/100BaseTX
Fa0/12		notconnect	1	auto	auto	10/100BaseTX
Fa0/13		notconnect	1	auto	auto	10/100BaseTX
Fa0/14		notconnect	1	auto	auto	10/100BaseTX
Fa0/15		notconnect	1	auto	auto	10/100BaseTX
Fa0/16		notconnect	1	auto	auto	10/100BaseTX
Fa0/17		notconnect	1	auto	auto	10/100BaseTX
Fa0/18		notconnect	1	auto	auto	10/100BaseTX
Fa0/19		notconnect	1	auto	auto	10/100BaseTX
Fa0/20		notconnect	1	auto	auto	10/100BaseTX
Fa0/21		notconnect	1	auto	auto	10/100BaseTX

--More--

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HTTP et HTTPS

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

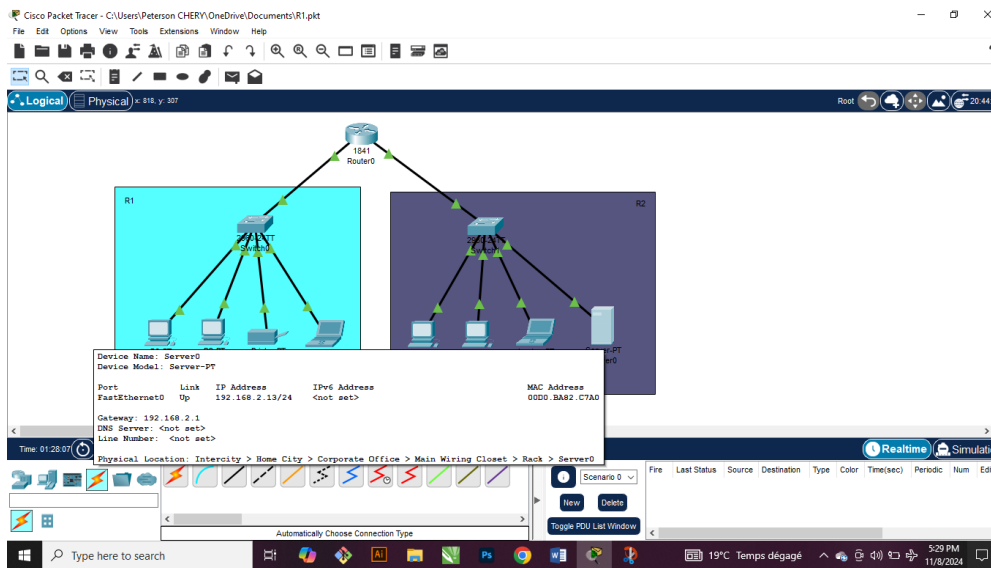
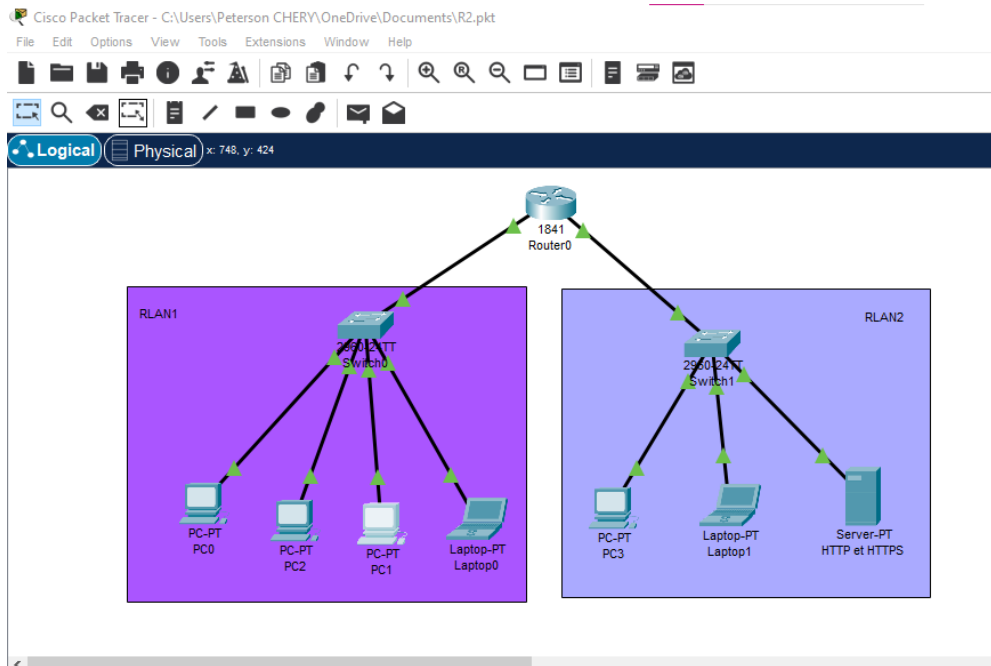
**HTTPS**

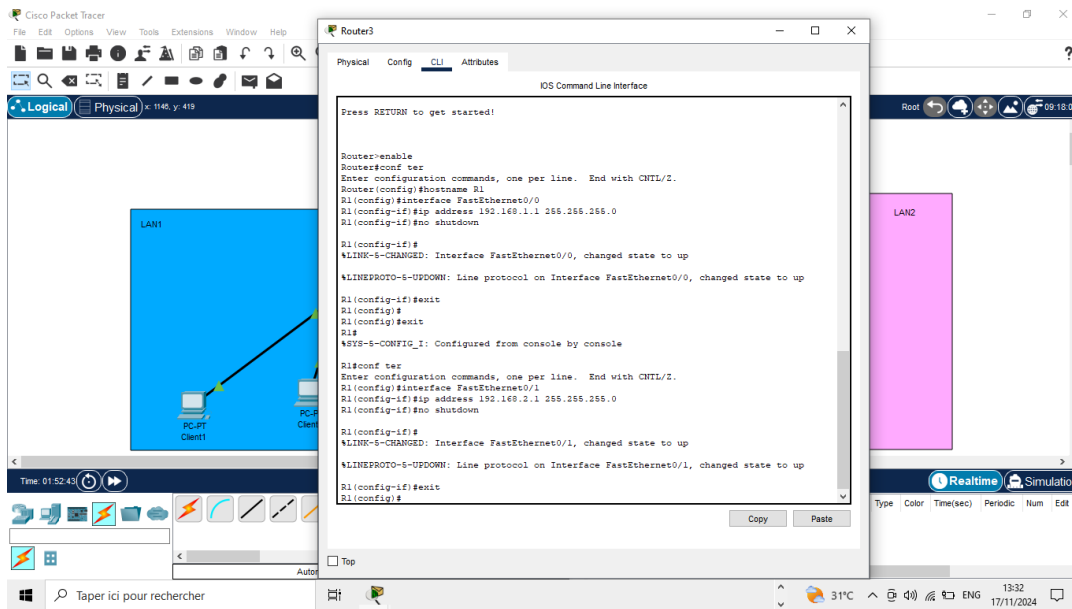
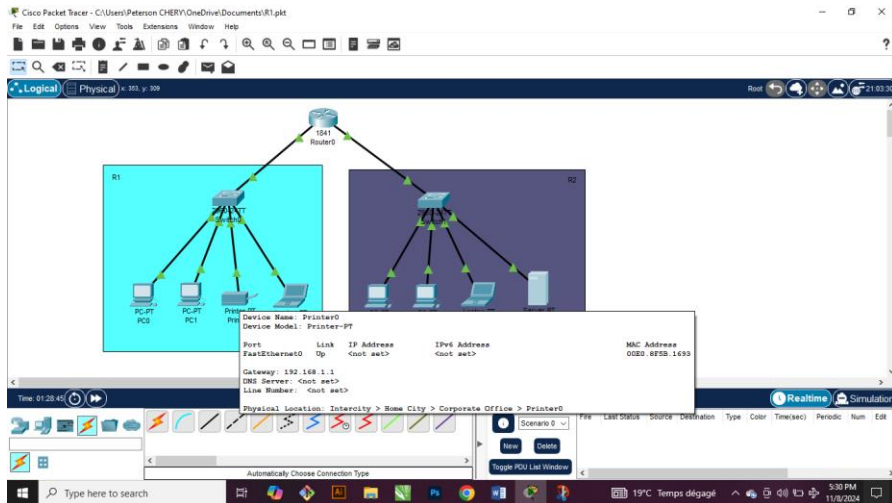
☒ On ☐ Off

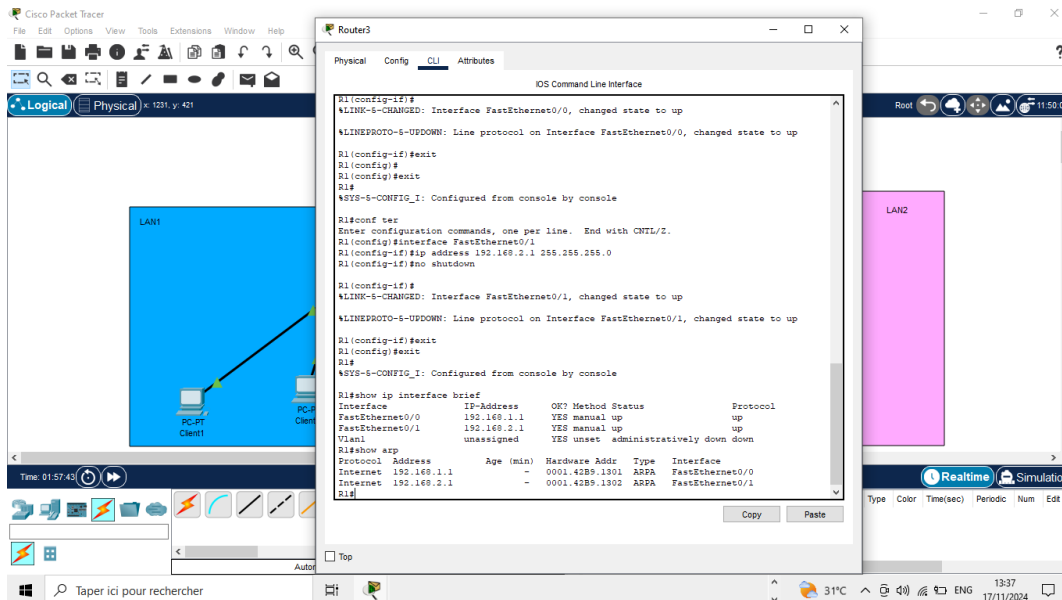
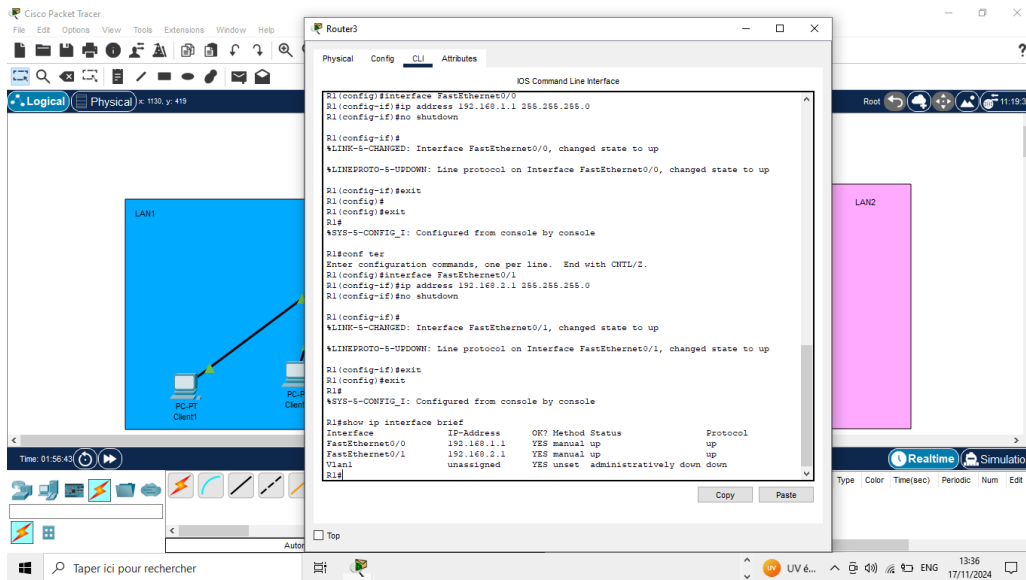
**File Manager**

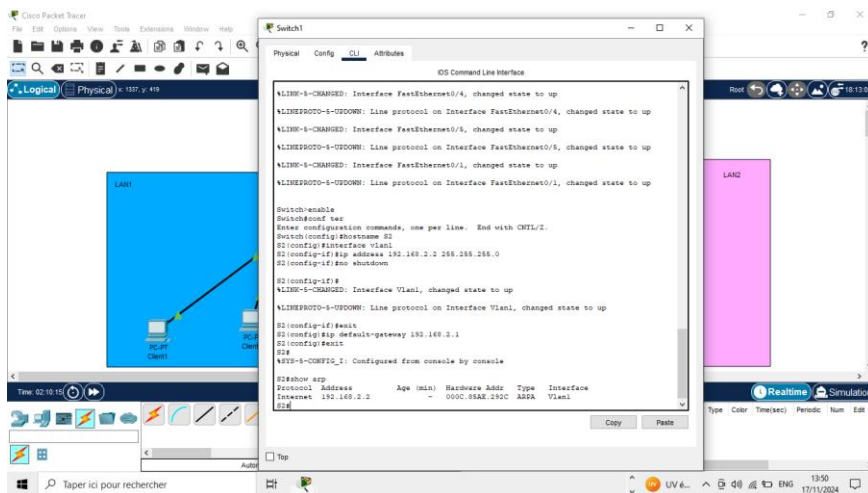
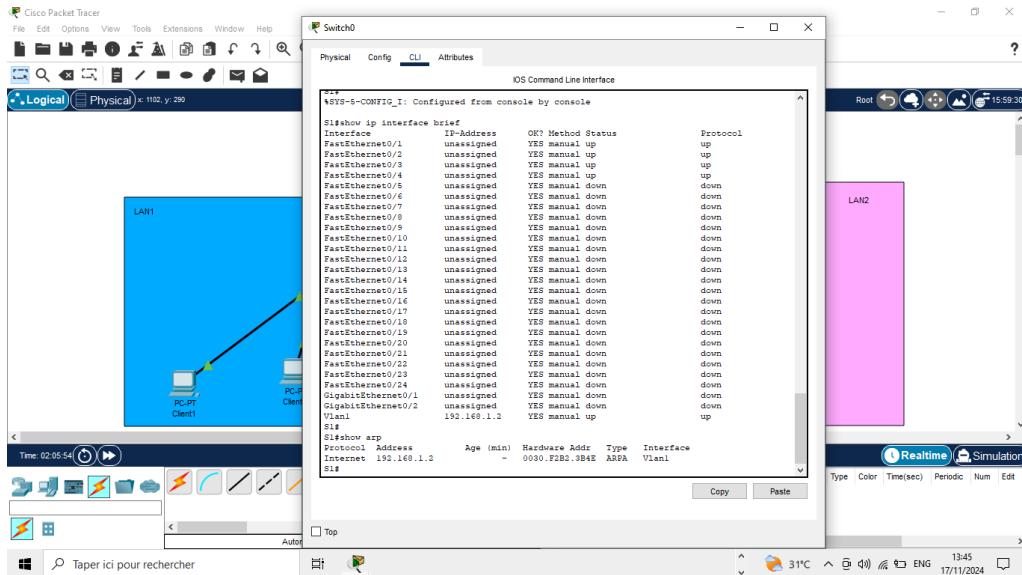
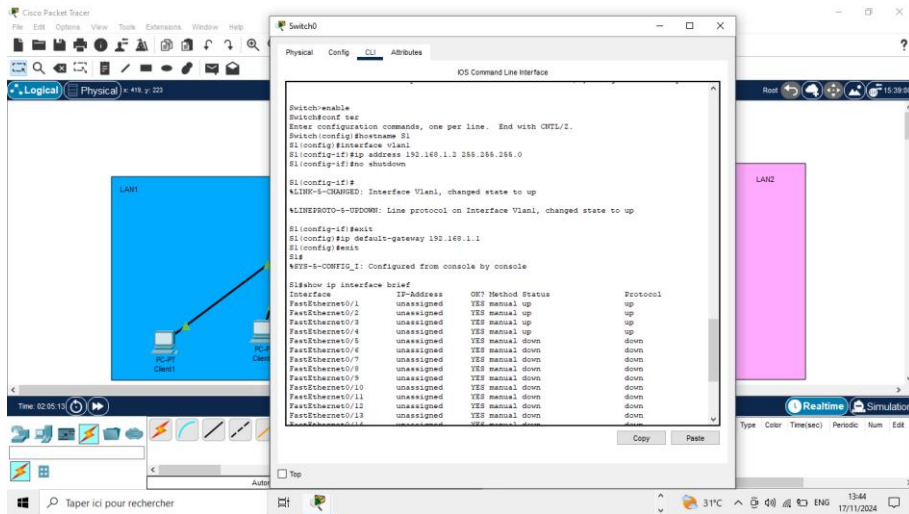
	File Name	Edit	Delete
1	copyrights.html	(edit)	(delete)
2	cscoptlogo177x111.jpg		(delete)
3	helloworld.html	(edit)	(delete)
4	image.html	(edit)	(delete)
5	index.html	(edit)	(delete)

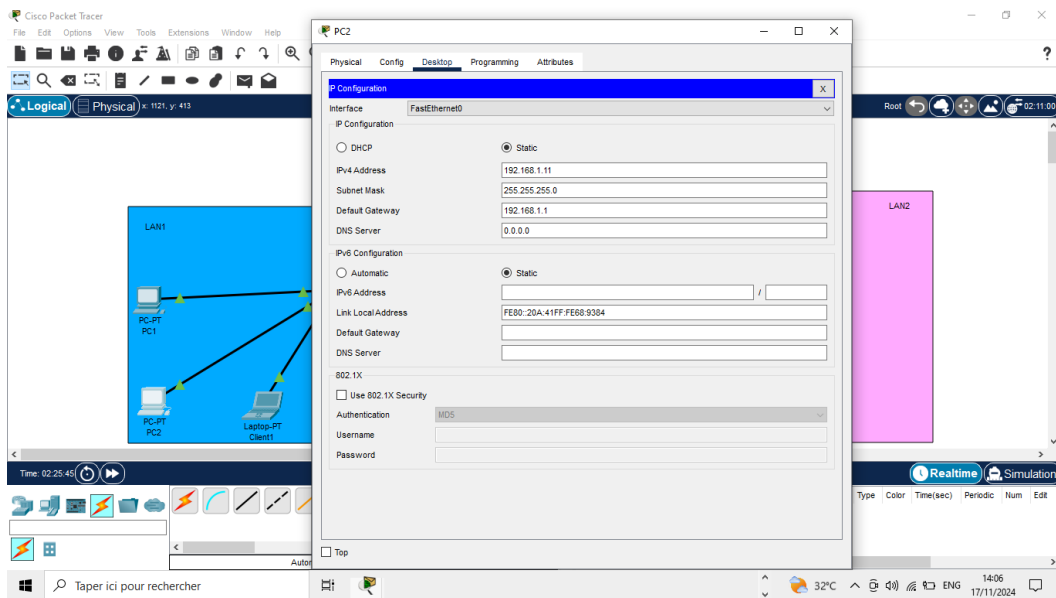
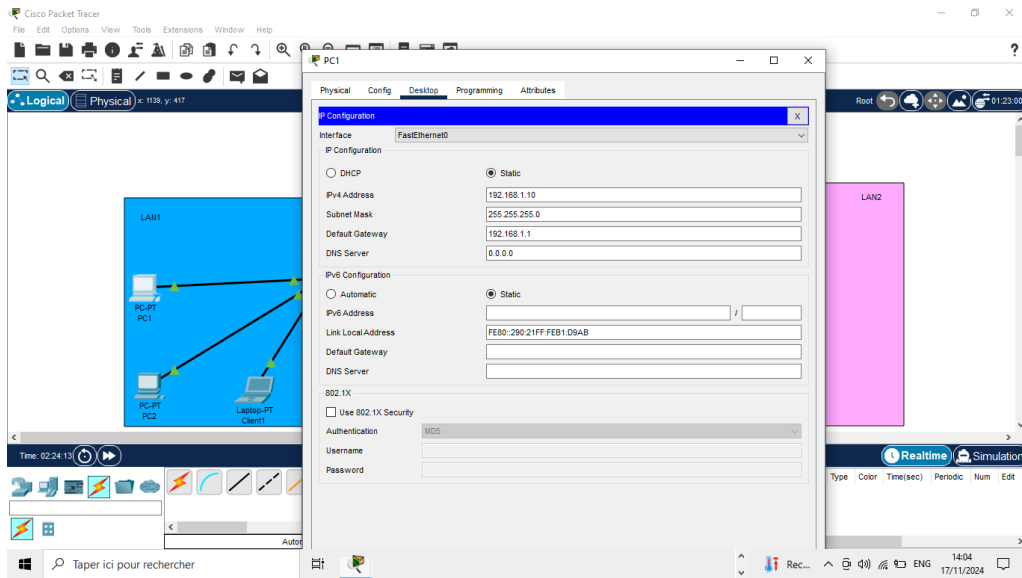


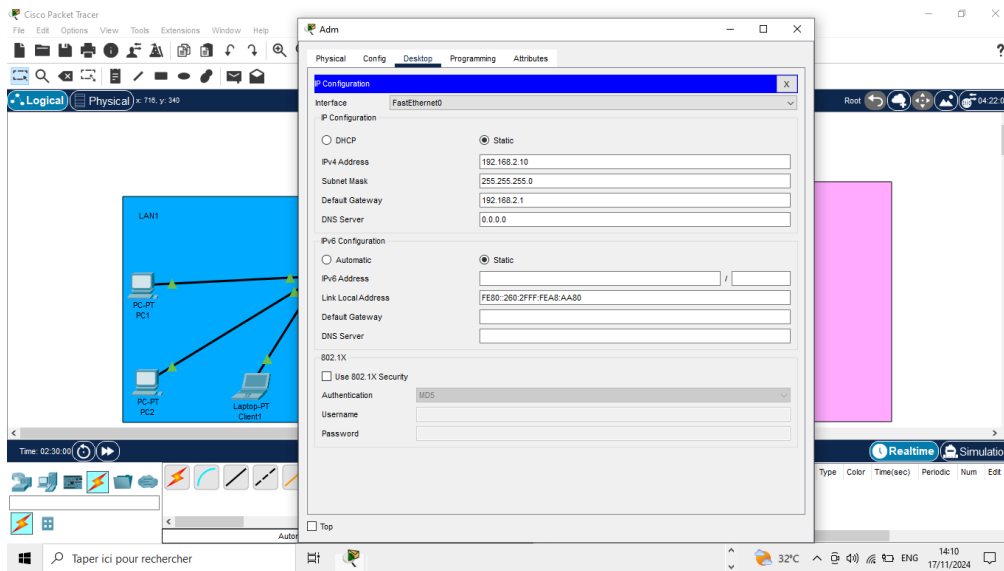
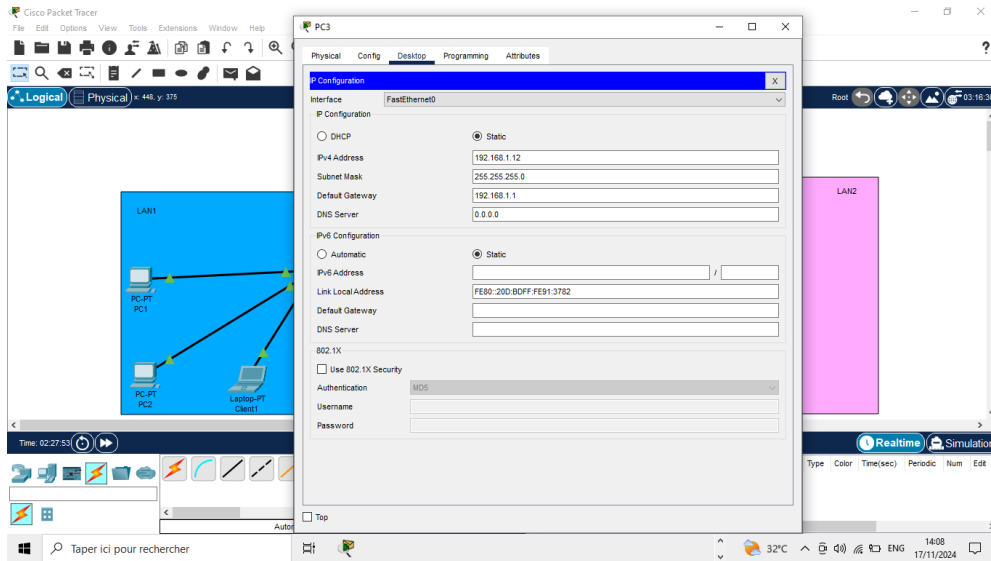


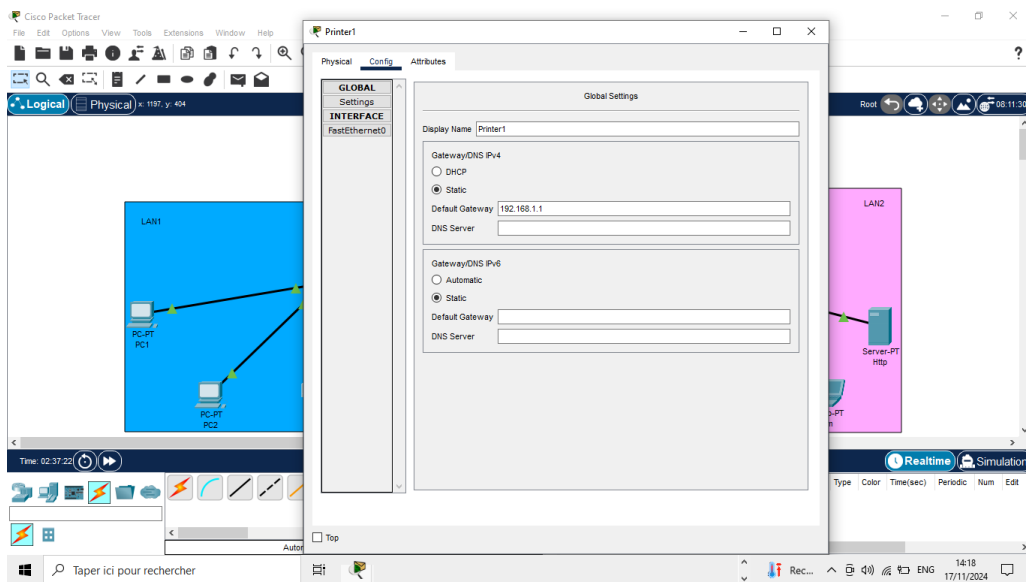
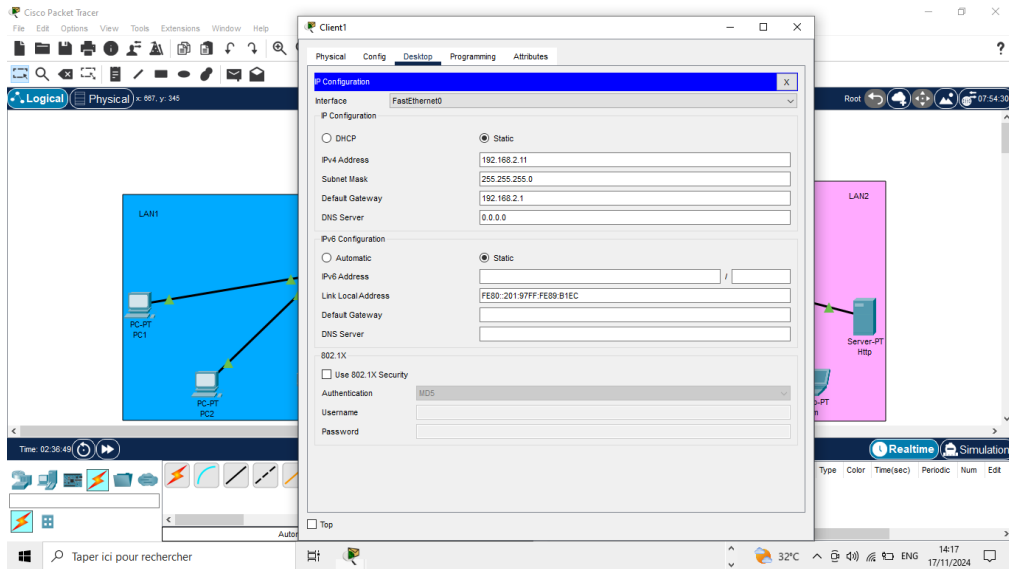


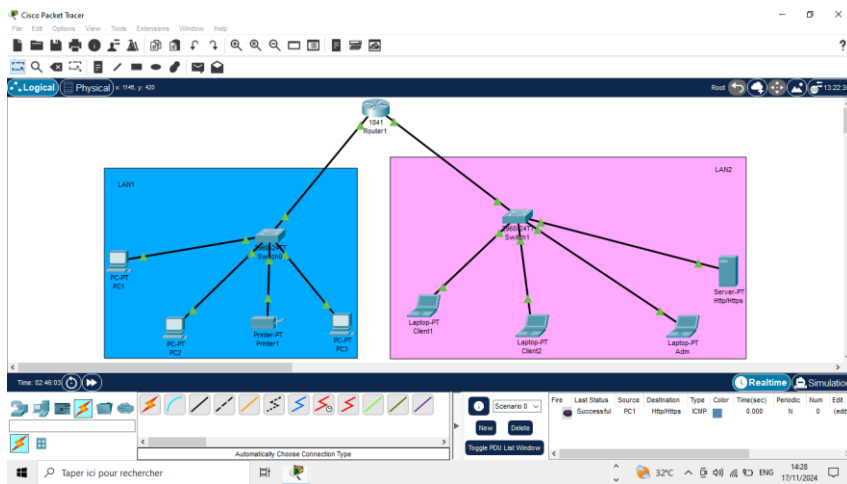
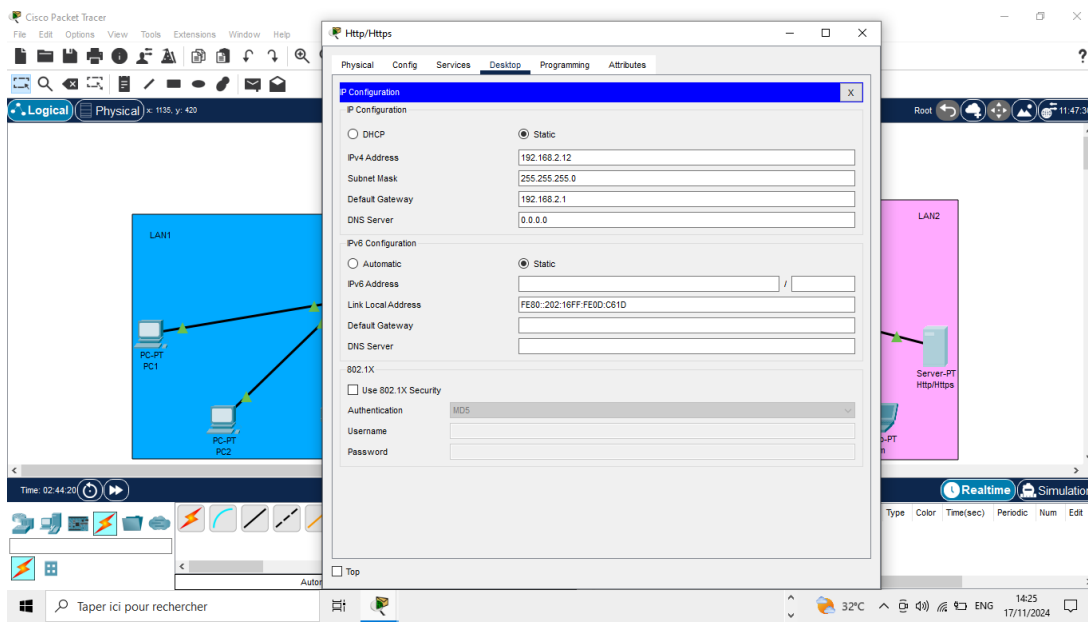
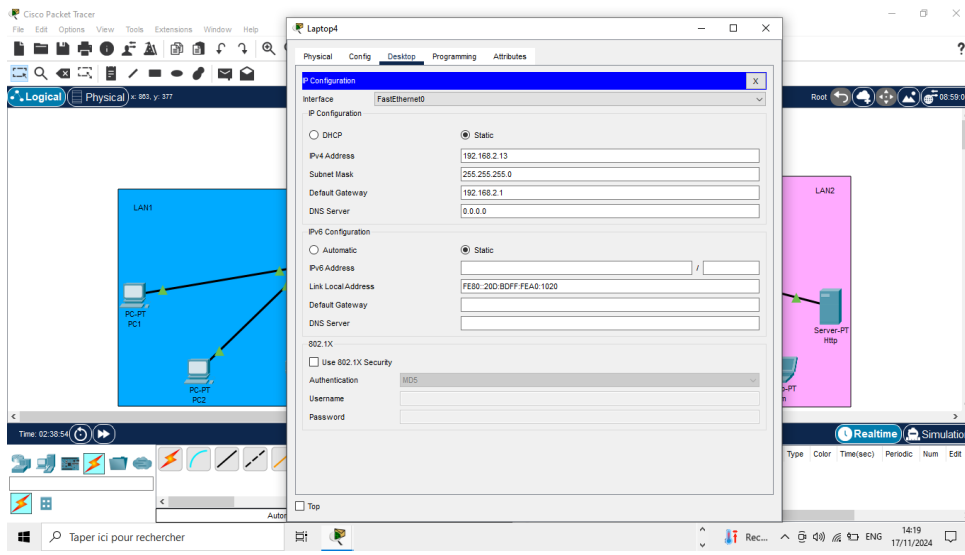




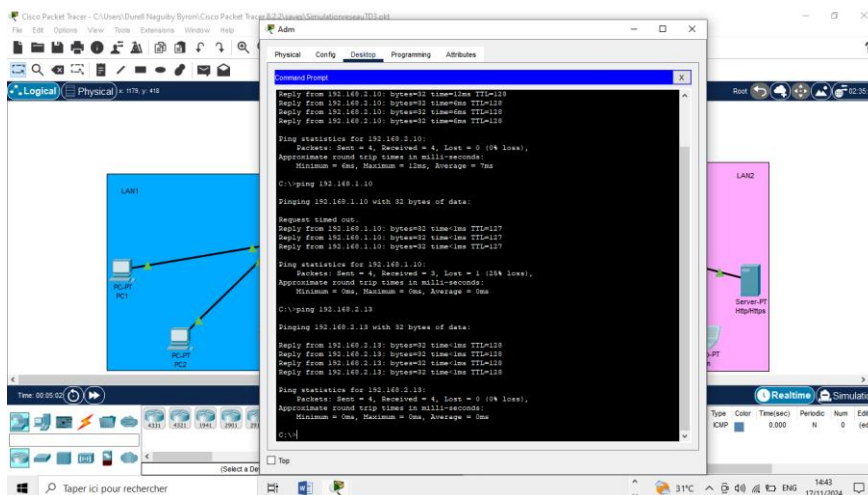
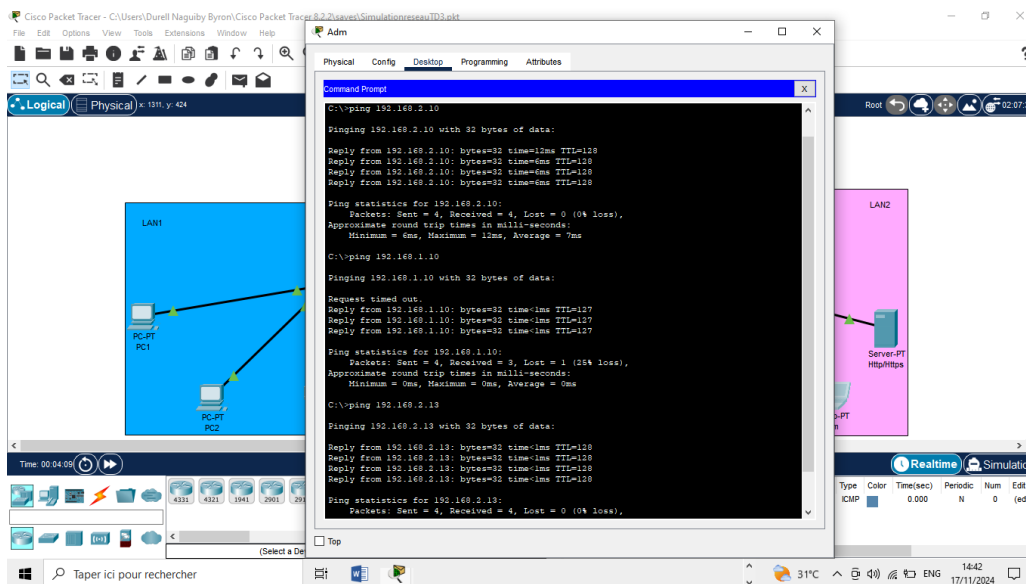
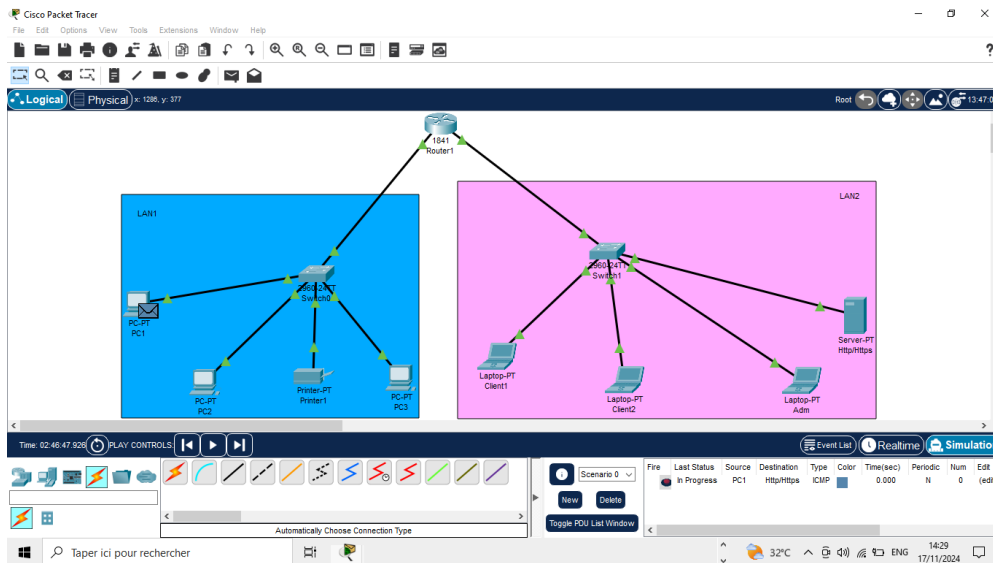












Cisco Packet Tracer - C:\Users\Durrell Naguib\Byron\Cisco Packet Tracer 8.2.2\save\SimulationresseauTD3.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x: 412, y: 222

LAN1

PC-PT PC1

PC-PT PC2

Time: 00:00:40

Switch0

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINK-6-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
```

Si-enable

Si-show interfaces status

Port	Name	Status	Vlan	Duplex	Speed	Type
Fa0/1		connected	1	auto	auto	10/100BaseTX
Fa0/2		connected	1	auto	auto	10/100BaseTX
Fa0/3		connected	1	auto	auto	10/100BaseTX
Fa0/4		connected	1	auto	auto	10/100BaseTX
Fa0/5		connected	1	auto	auto	10/100BaseTX
Fa0/6		notconnect	1	auto	auto	10/100BaseTX
Fa0/7		notconnect	1	auto	auto	10/100BaseTX
Fa0/8		notconnect	1	auto	auto	10/100BaseTX
Fa0/9		notconnect	1	auto	auto	10/100BaseTX
Fa0/10		notconnect	1	auto	auto	10/100BaseTX
Fa0/11		notconnect	1	auto	auto	10/100BaseTX
Fa0/12		notconnect	1	auto	auto	10/100BaseTX
Fa0/13		notconnect	1	auto	auto	10/100BaseTX
Fa0/14		notconnect	1	auto	auto	10/100BaseTX
Fa0/15		notconnect	1	auto	auto	10/100BaseTX
Fa0/16		notconnect	1	auto	auto	10/100BaseTX
Fa0/17		notconnect	1	auto	auto	10/100BaseTX
Fa0/18		notconnect	1	auto	auto	10/100BaseTX
Fa0/19		notconnect	1	auto	auto	10/100BaseTX
Fa0/20		notconnect	1	auto	auto	10/100BaseTX
Fa0/21		notconnect	1	auto	auto	10/100BaseTX
Fa0/22		notconnect	1	auto	auto	10/100BaseTX
Fa0/23		notconnect	1	auto	auto	10/100BaseTX
Fa0/24		notconnect	1	auto	auto	10/100BaseTX
Gig0/1		notconnect	1	auto	auto	10/100BaseTX
Gig0/2		notconnect	1	auto	auto	10/100BaseTX

Root

LAN2

Server-PT Http/Https

Realtime Simulation

Type Color Time(sec) Periodic Num Edit

ICMP 0.000 N 0 (edit)

14:45 17/11/2024

Cisco Packet Tracer - C:\Users\Durrell Naguib\Byron\Cisco Packet Tracer 8.2.2\save\SimulationresseauTD3.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x: 582, y: 1

LAN1

PC-PT PC1

PC-PT PC2

Time: 00:00:25

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
Cisco 1841 (revision 5.0) with 1146896K/16384K bytes of memory.
Processor board ID FTX0947218E
M560 processor: part number 0, mask 49
3 FastEthernet/IEEE 802.3 interface(s)
191K bytes of NVRAM.
63488K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1, RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 10-Jul-07 04:52 by pt_team

Press RETURN to get started!
```

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Si-enable

Si-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

```
C 192.168.1.0/24 is directly connected, FastEthernet0/0
C 192.168.2.0/24 is directly connected, FastEthernet0/1
```

Root

LAN2

Server-PT Http/Https

Realtime Simulation

Type Color Time(sec) Periodic Num Edit

ICMP 0.000 N 0 (edit)

14:46 17/11/2024

Cisco Packet Tracer - C:\Users\Durrell Naguib\Byron\Cisco Packet Tracer 8.2.2\save\SimulationresseauTD3.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x: 120, y: 280

LAN1

PC1

PC2

Time: 00:09:26

Http/Https

Physical Config Services Desktop Programming Attributes

SERVICES

HTTP

HTTP On OFF

HTTPS On OFF

File Manager

File Name	Edit	Delete
1. copyrights.html	(edit)	(delete)
2. cacotopgo177x111.jpg	(edit)	(delete)
3. helloworld.html	(edit)	(delete)
4. image.html	(edit)	(delete)
5. index.html	(edit)	(delete)

Root

LAN2

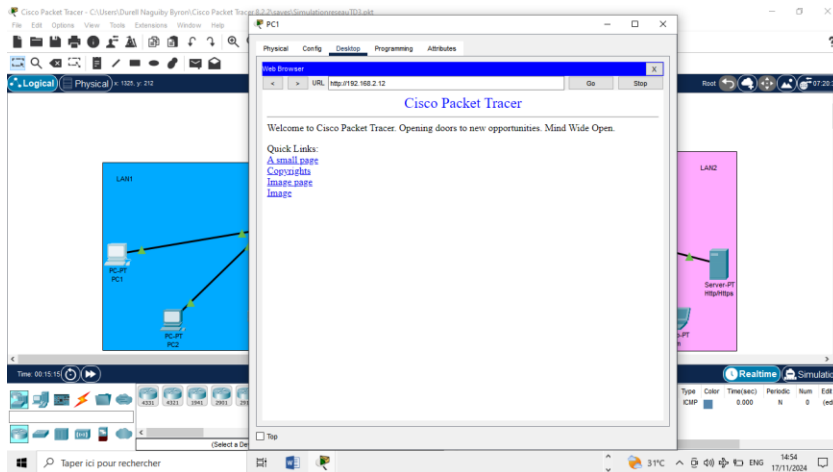
Server-PT Http/Https

Realtime Simulation

Type Color Time(sec) Periodic Num Edit

ICMP 0.000 N 0 (edit)

14:48 17/11/2024



En conclusion, ce cours nous permet d'apprendre à configurer des adresses IP sur un commutateur et sur les interfaces d'un routeur, configurer un serveur web et vérifier la connectivité et accès aux services http/https via du navigateur d'un PC.