# Institut Universitaire des Sciences

## Faculté sciences et technologies

Rapport TD5 reseau 2

Préparé par :

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Niveau : L3 - Sciences Informatiques

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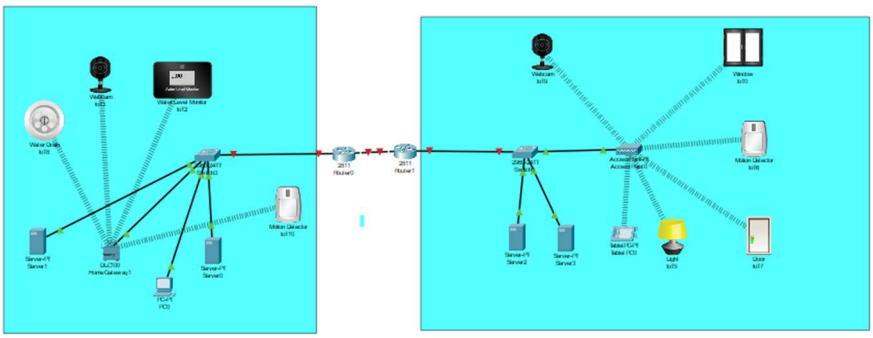
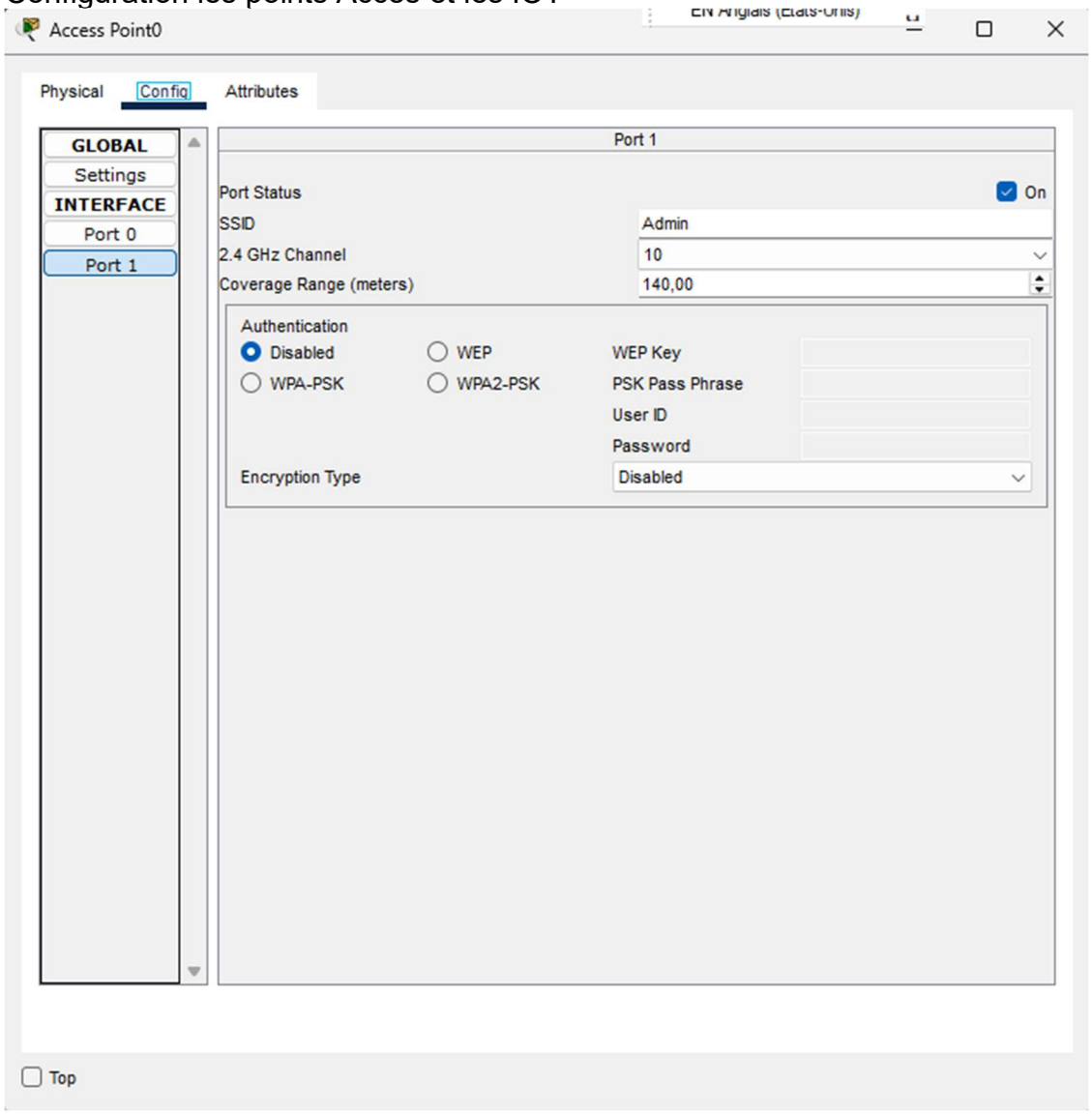
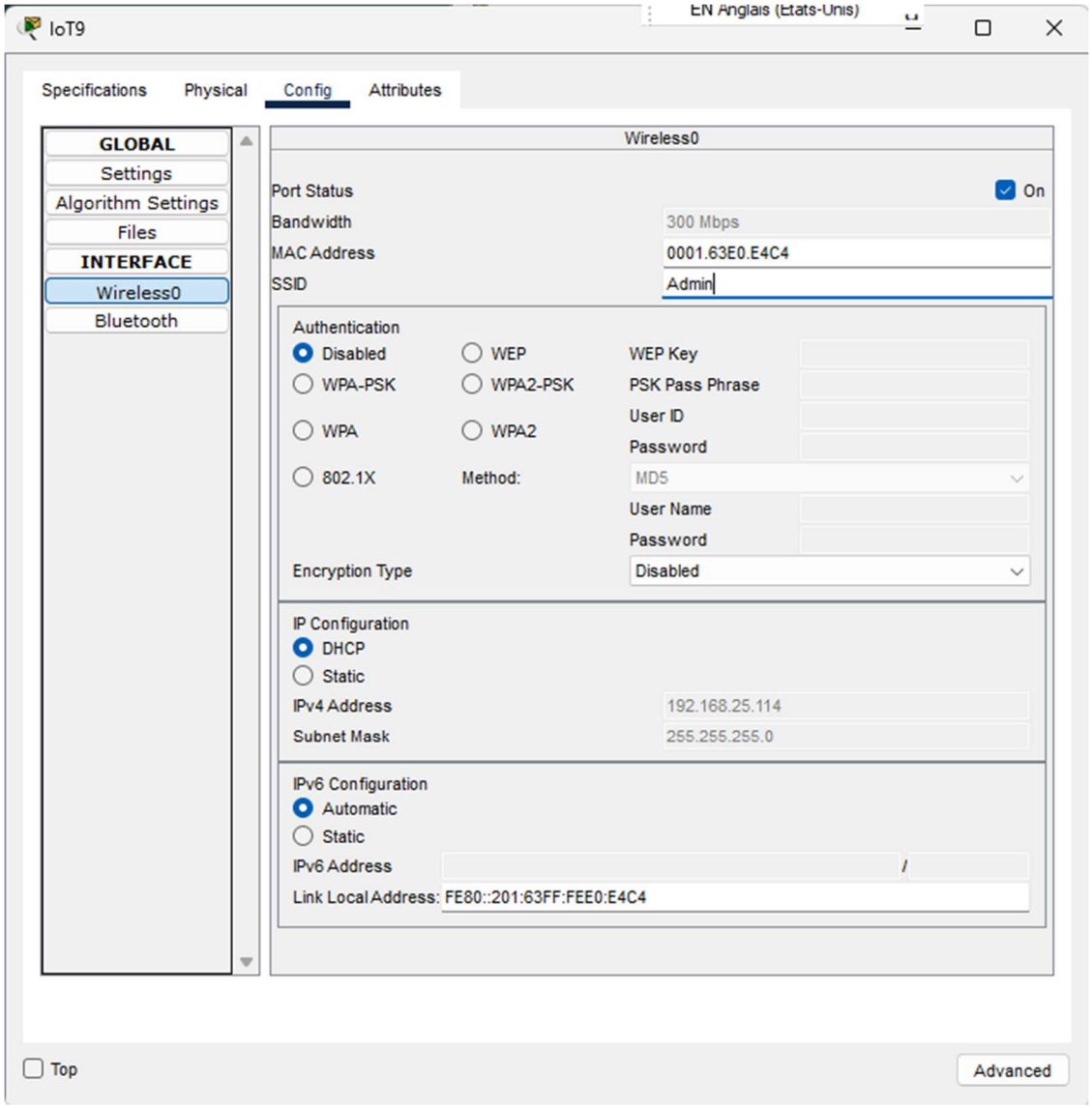
# 1. Reproduisez cette topologie en implémentant le Protocole de Routage OSPF dans un Réseau!

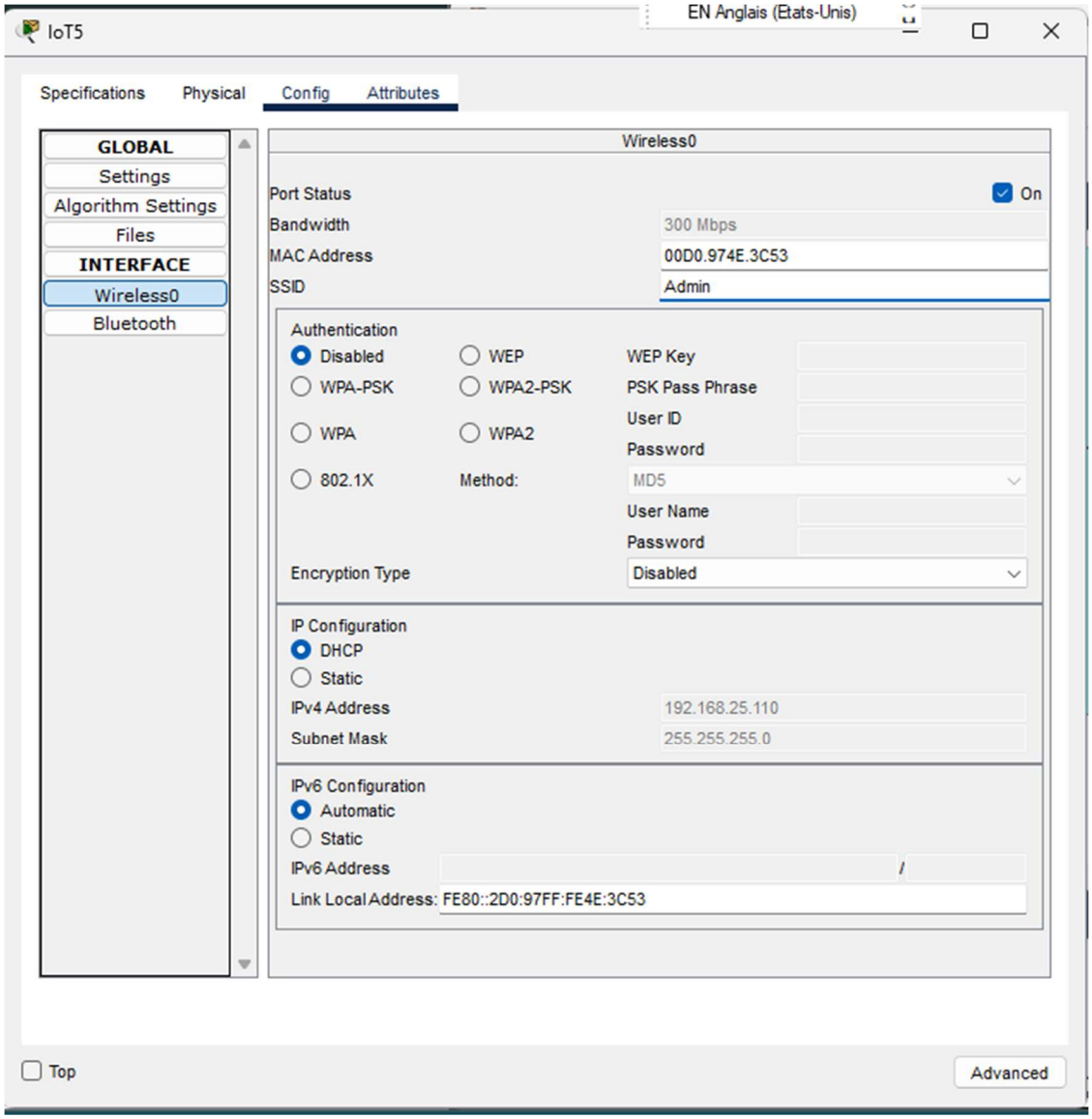
1. Topologie du réseau :

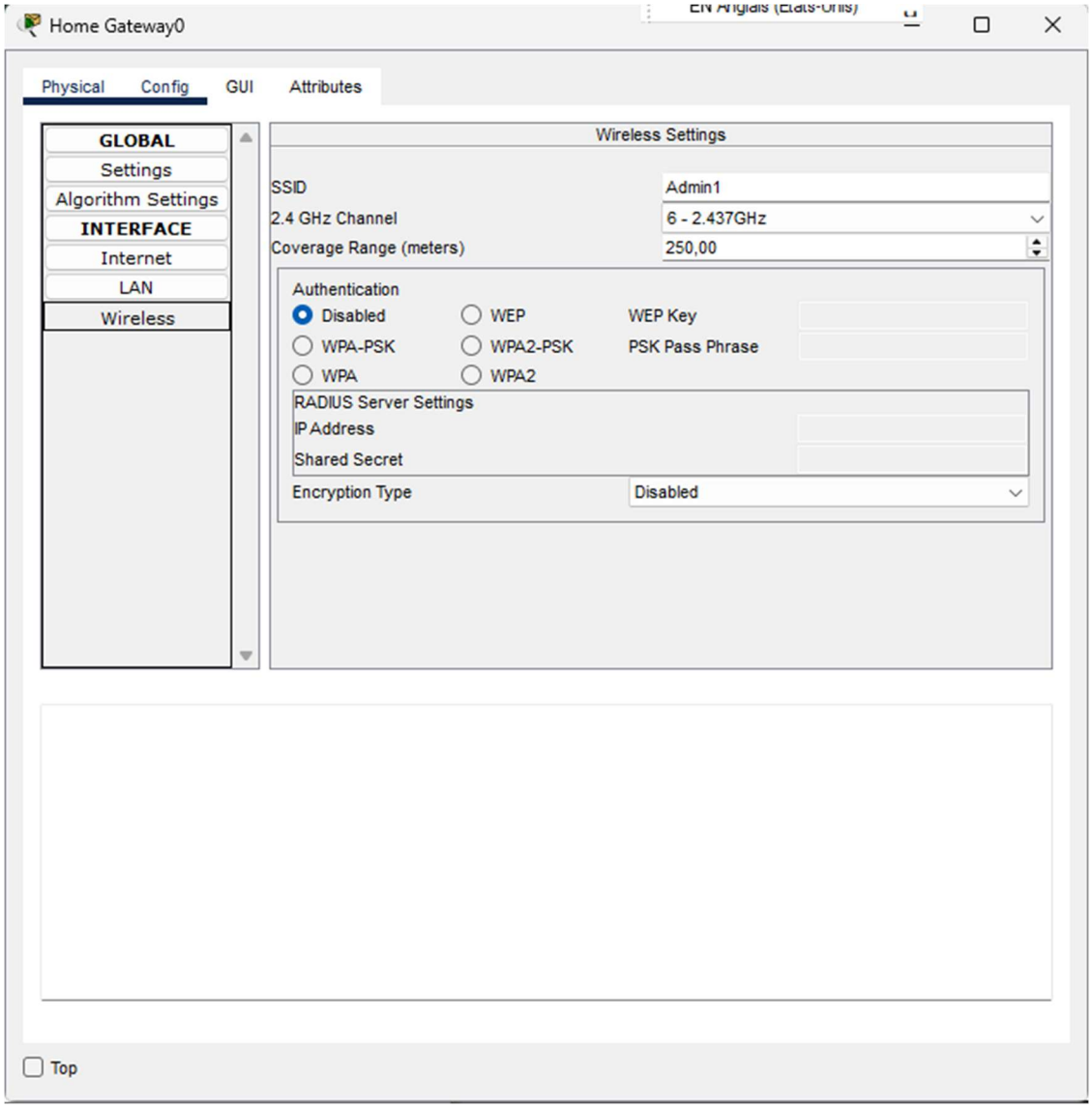


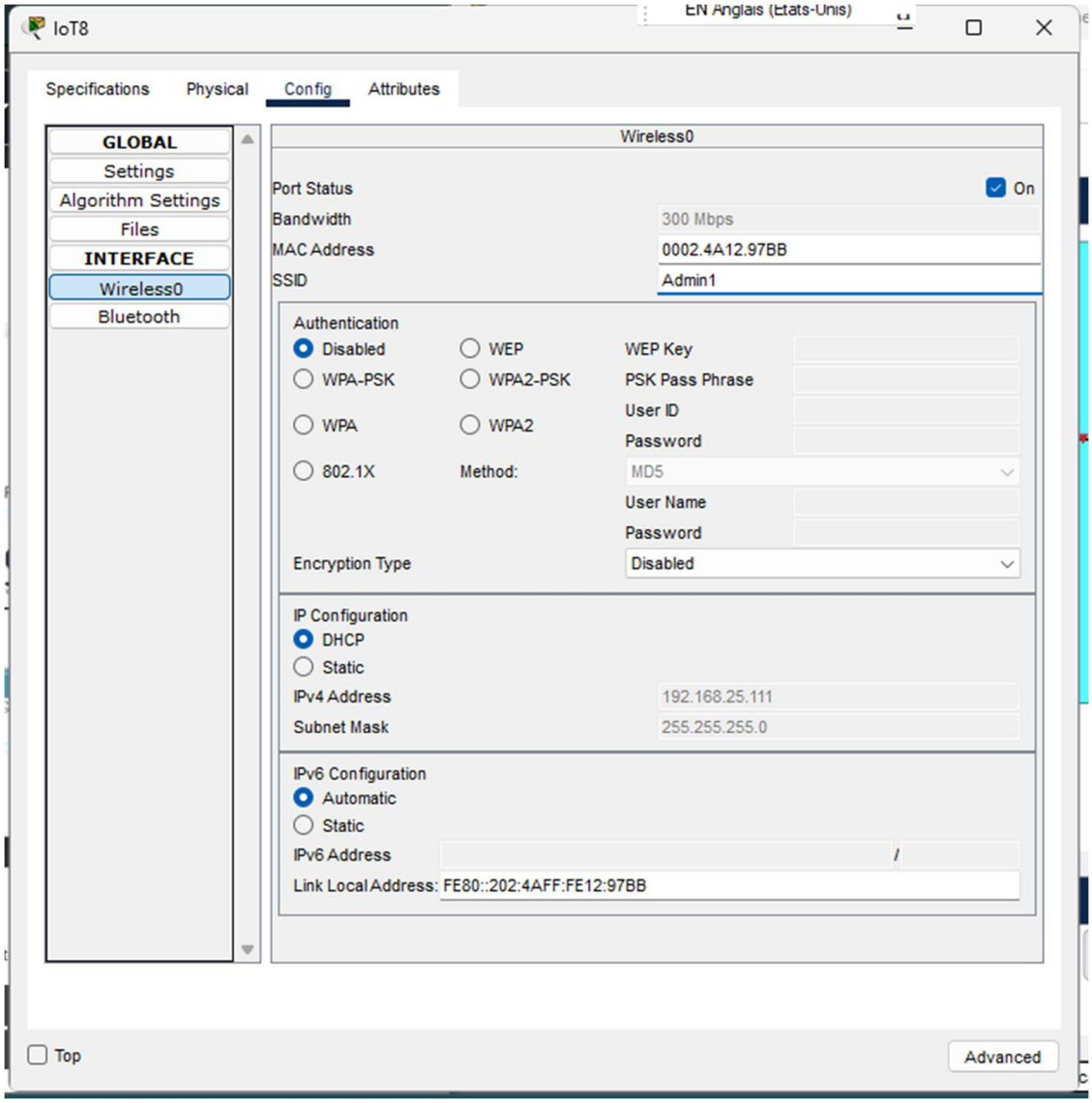
2. Configuration les points Acces et les IOT

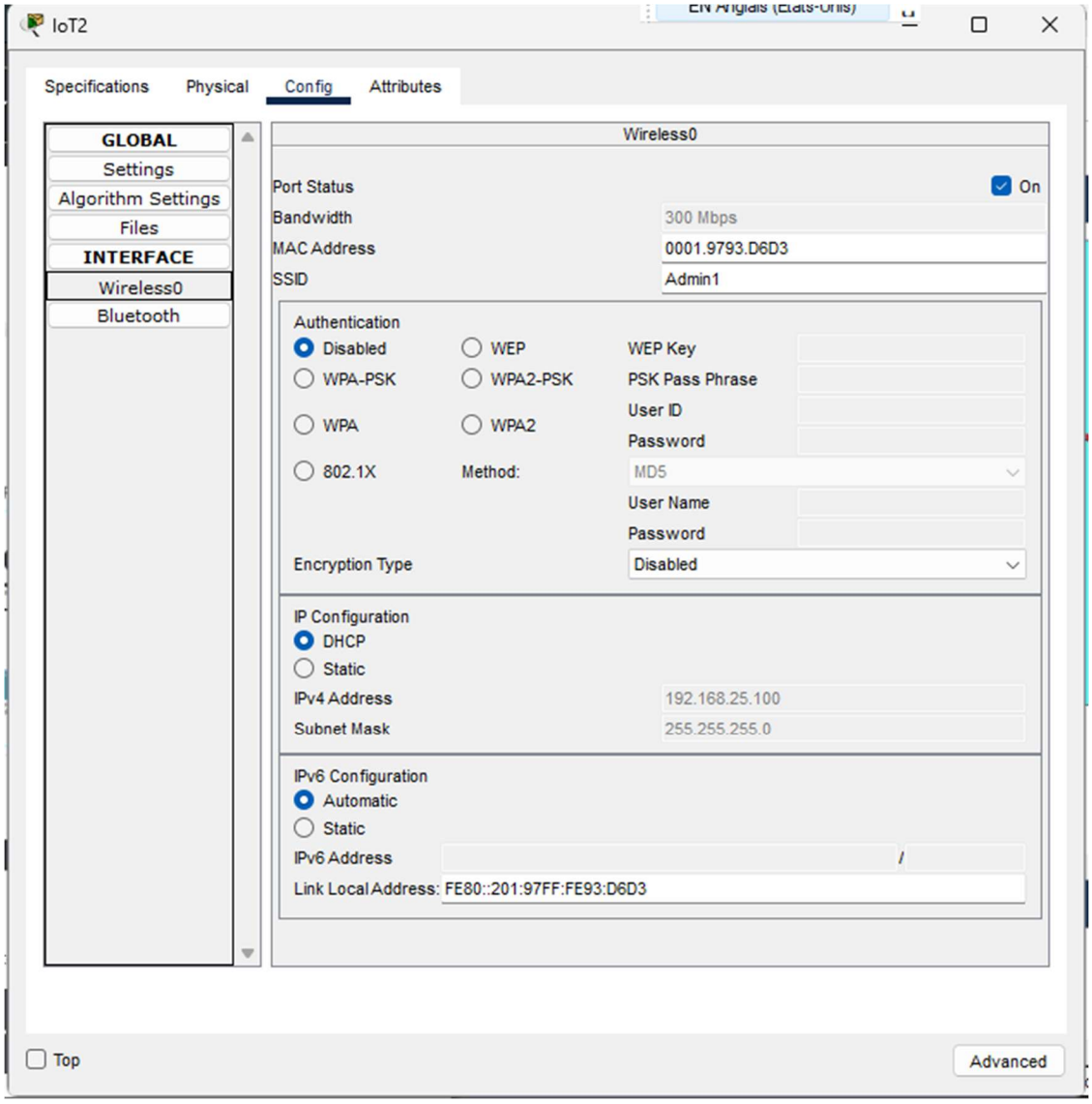



IoT9
EN Anglais (Etats-Unis)
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
0001.63E0.E4C4
SSID
Admin
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.114
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::201:63FF:FEE0:E4C4
Top
Advanced

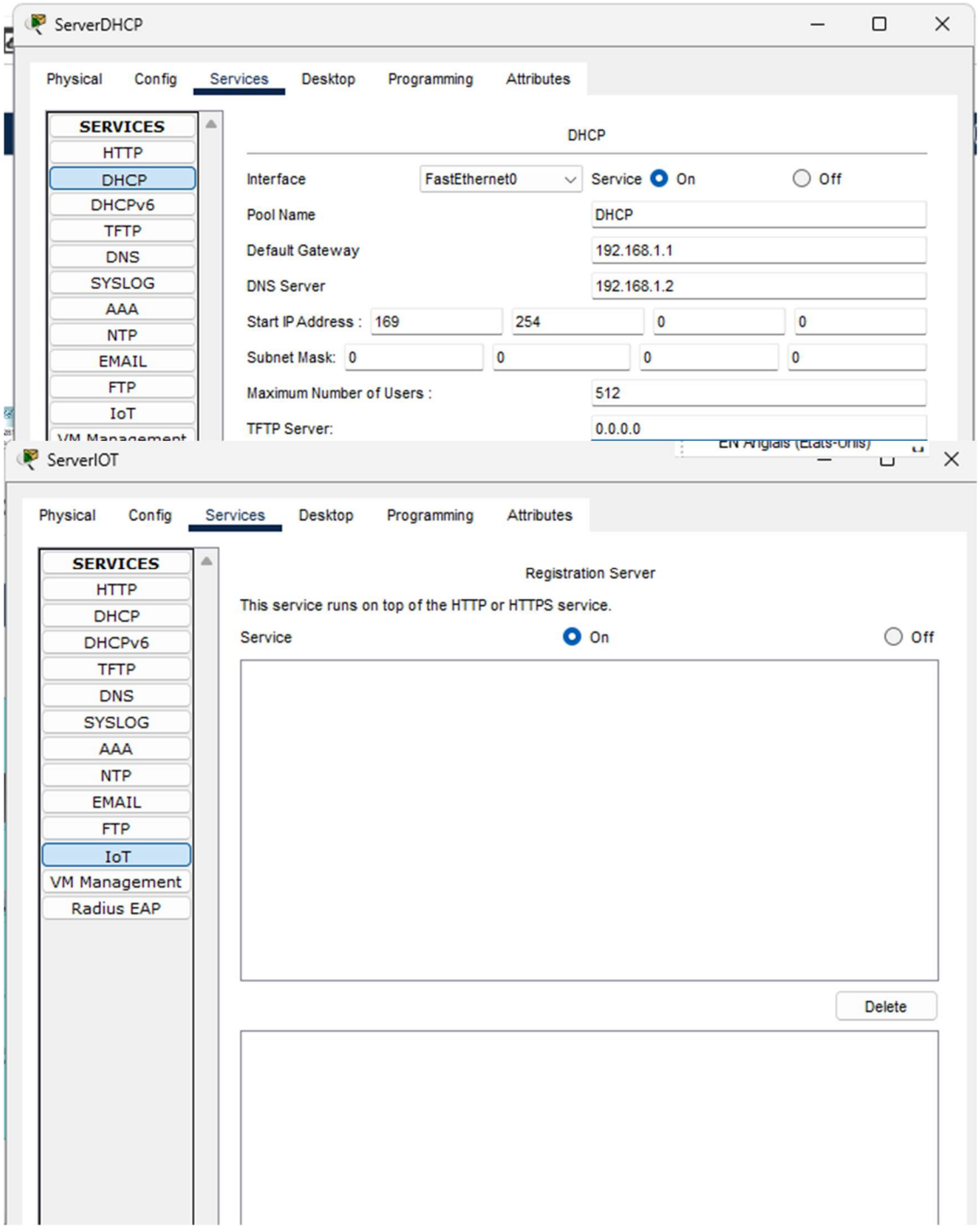

IoT5
EN Anglais (Etats-Unis)
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
00D0.974E.3C53
SSID
Admin
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.110
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::2D0:97FF:FE4E:3C53
Top
Advanced


Home Gateway0
Physical
Config
GUI
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
Internet
LAN
Wireless
Wireless Settings
SSID
Admin1
2.4 GHz Channel
6 - 2.437GHz
Coverage Range (meters)
250,00
Authentication
Disabled
WEP
WEP Key
WPA-PSK
WPA2-PSK
PSK Pass Phrase
WPA
WPA2
RADIUS Server Settings
IP Address
Shared Secret
Encryption Type
Disabled
Top

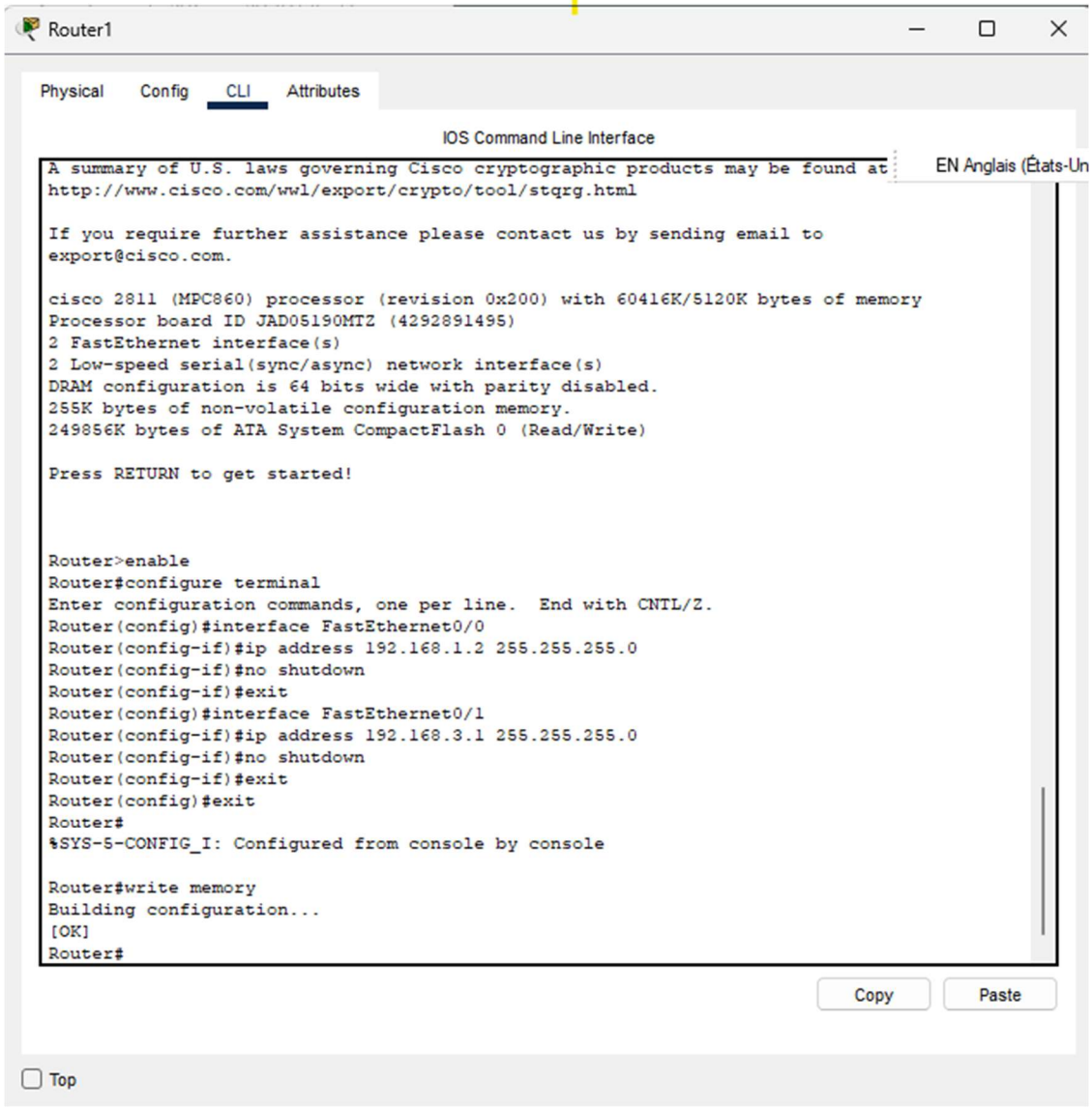

EN Anglais (Etats-Unis)
IoT8
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
0002.4A12.97BB
SSID
Admin1
Authentication
Disabled
WEP
WEP Key
WPA-PSK
WPA2-PSK
PSK Pass Phrase
User ID
WPA
WPA2
Password
802.1X
Method:
MD5
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.111
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::202:4AFF:FE12:97BB
Top
Advanced


IoT2
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
0001.9793.D6D3
SSID
Admin1
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.100
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address:
FE80::201:97FF:FE93:D6D3
Top
Advanced

3. Configuration des serveurs DHCP et IOT



4. Configuration de base des routeurs



5. Configuration du protocole OSPF

```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#router-id 1.1.1.1
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#
```

```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#router-id 2.2.2.2
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 192.168.3.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#
```

6. Vérification de la configuration OSPF

```
Router#show ip ospf neighbor

Neighbor ID     Pri   State           Dead Time   Address         Interface
2.2.2.2           1   FULL/BDR        00:00:34    192.168.1.2     FastEthernet0/0
Router#show ip route ospf
O    192.168.3.0 [110/2] via 192.168.1.2, 00:01:03, FastEthernet0/0

Router#
```

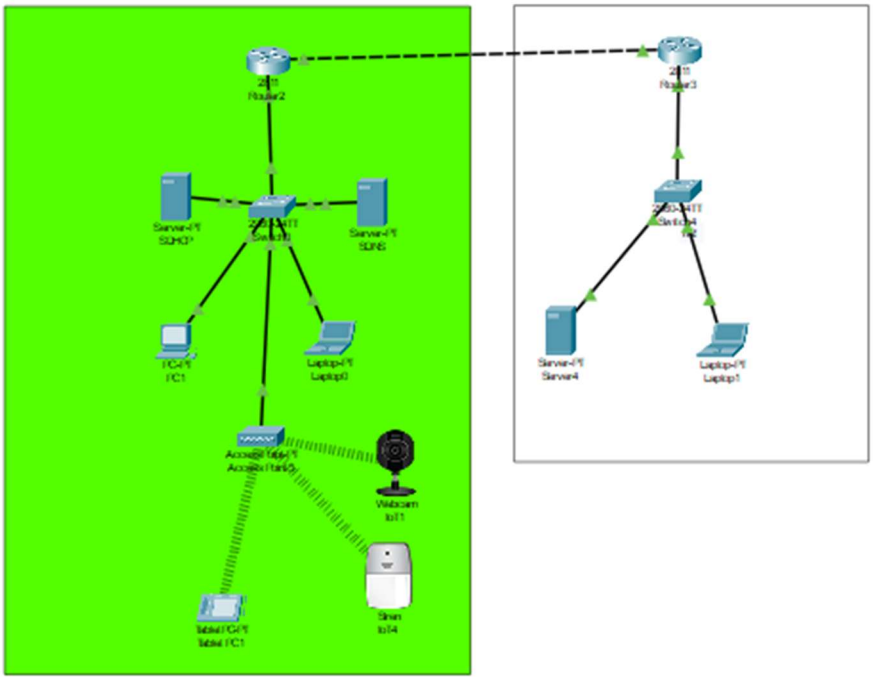
Copy Paste

```
Router#show ip ospf neighbor

Neighbor ID     Pri   State           Dead Time   Address         Interface
2.2.2.2           1   FULL/BDR        00:00:34    192.168.1.2     FastEthernet0/0
Router#show ip route ospf
O    192.168.3.0 [110/2] via 192.168.1.2, 00:01:03, FastEthernet0/0

Router#
```

Copy Paste

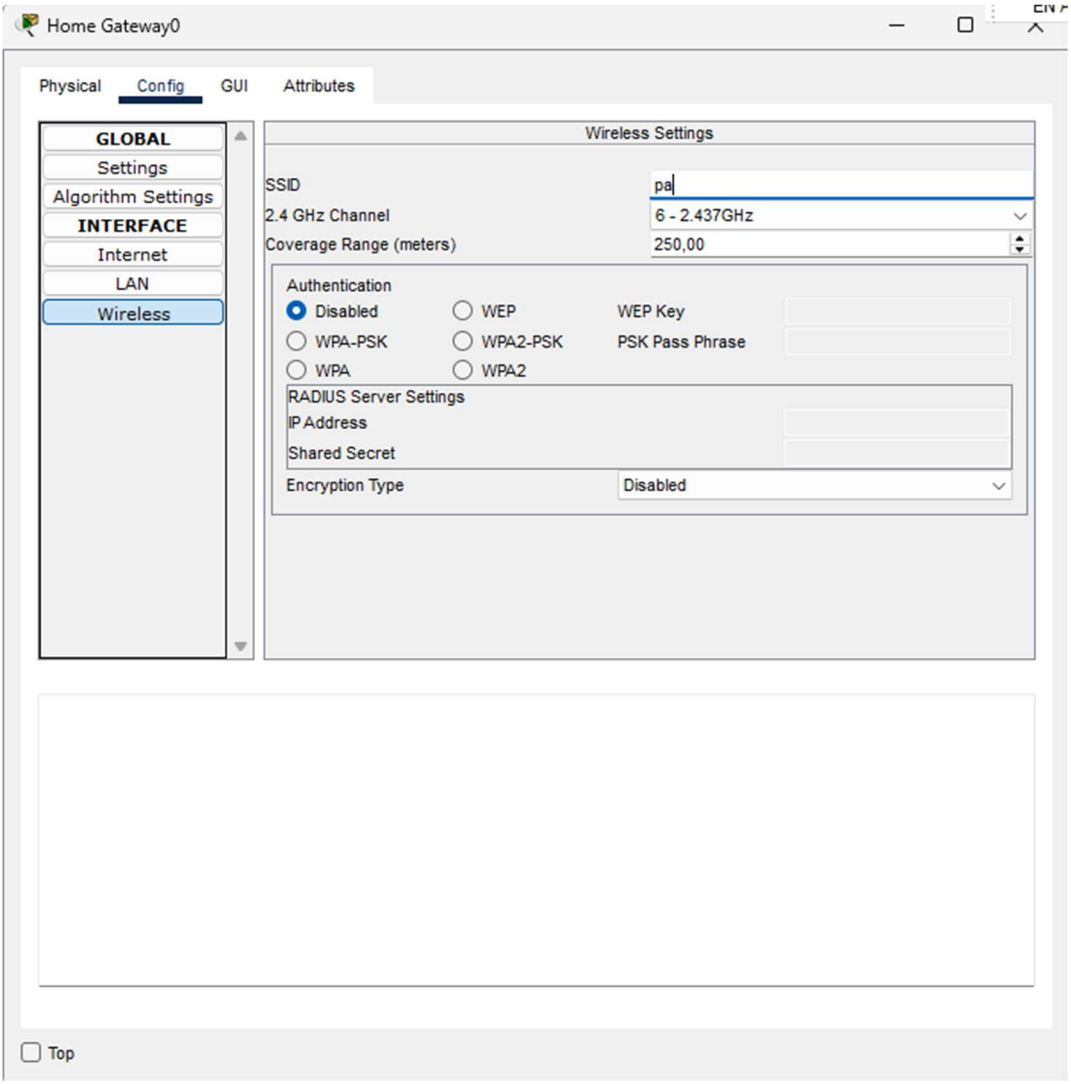
# REPONSE Q2

## 2. Reproduisez cette topologie en configurant le réseau IoT (Internet des Objets).

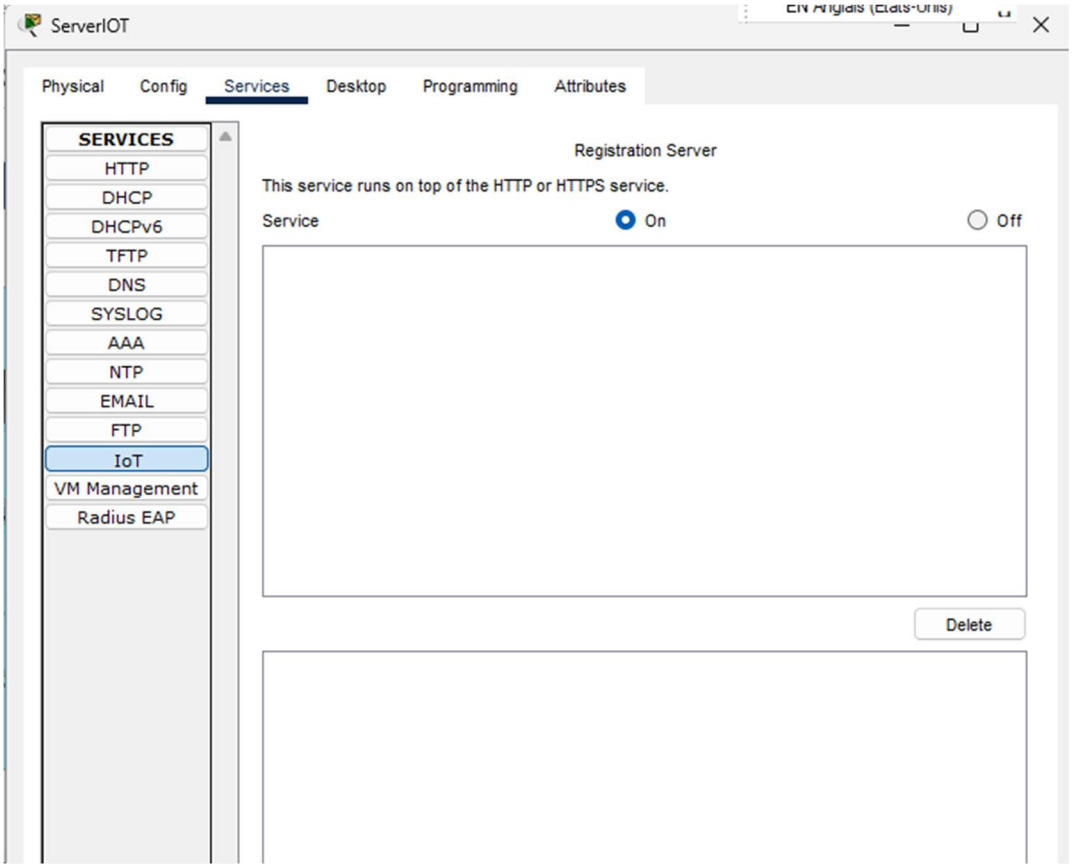


*Topologie2*

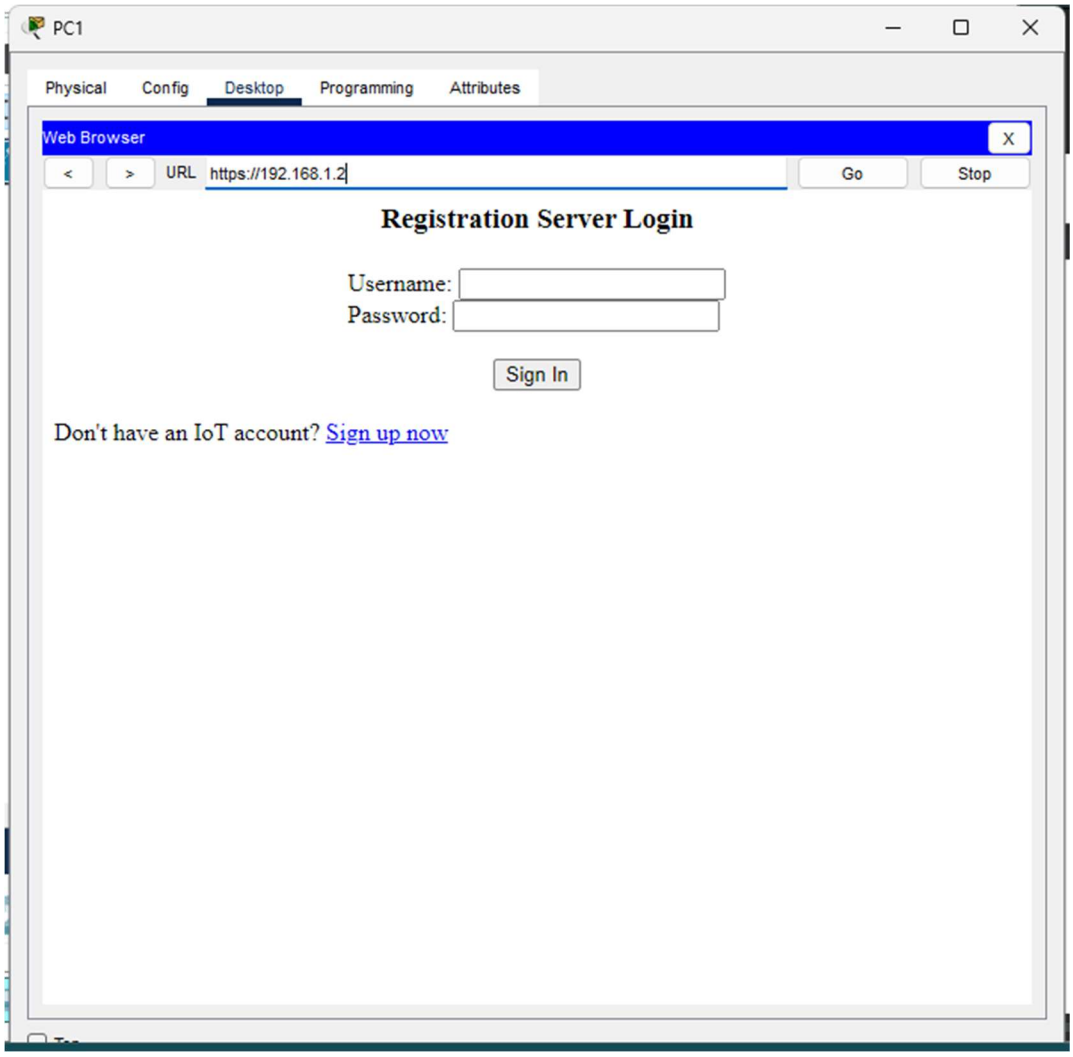
# Configuration du point Acces

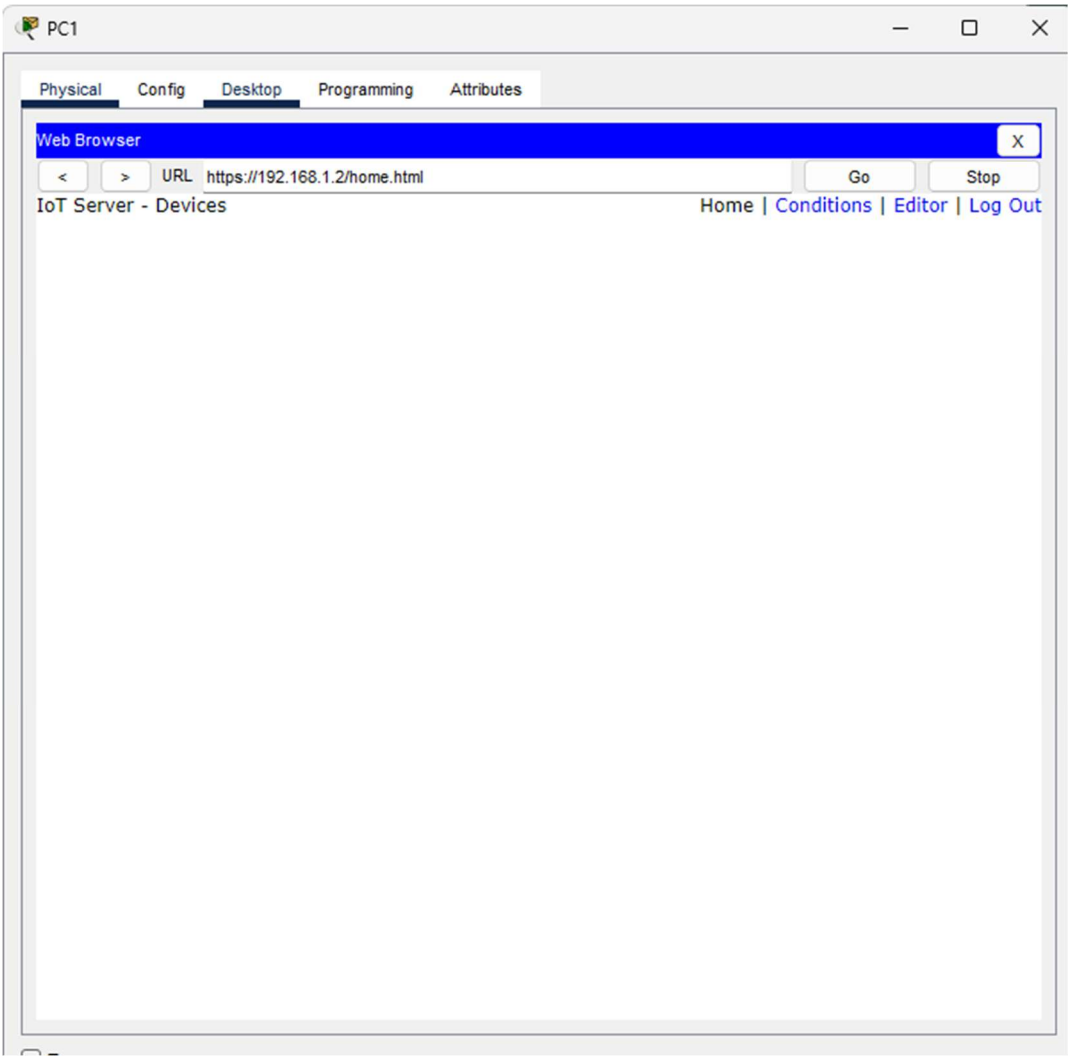


# Activation des services IOT

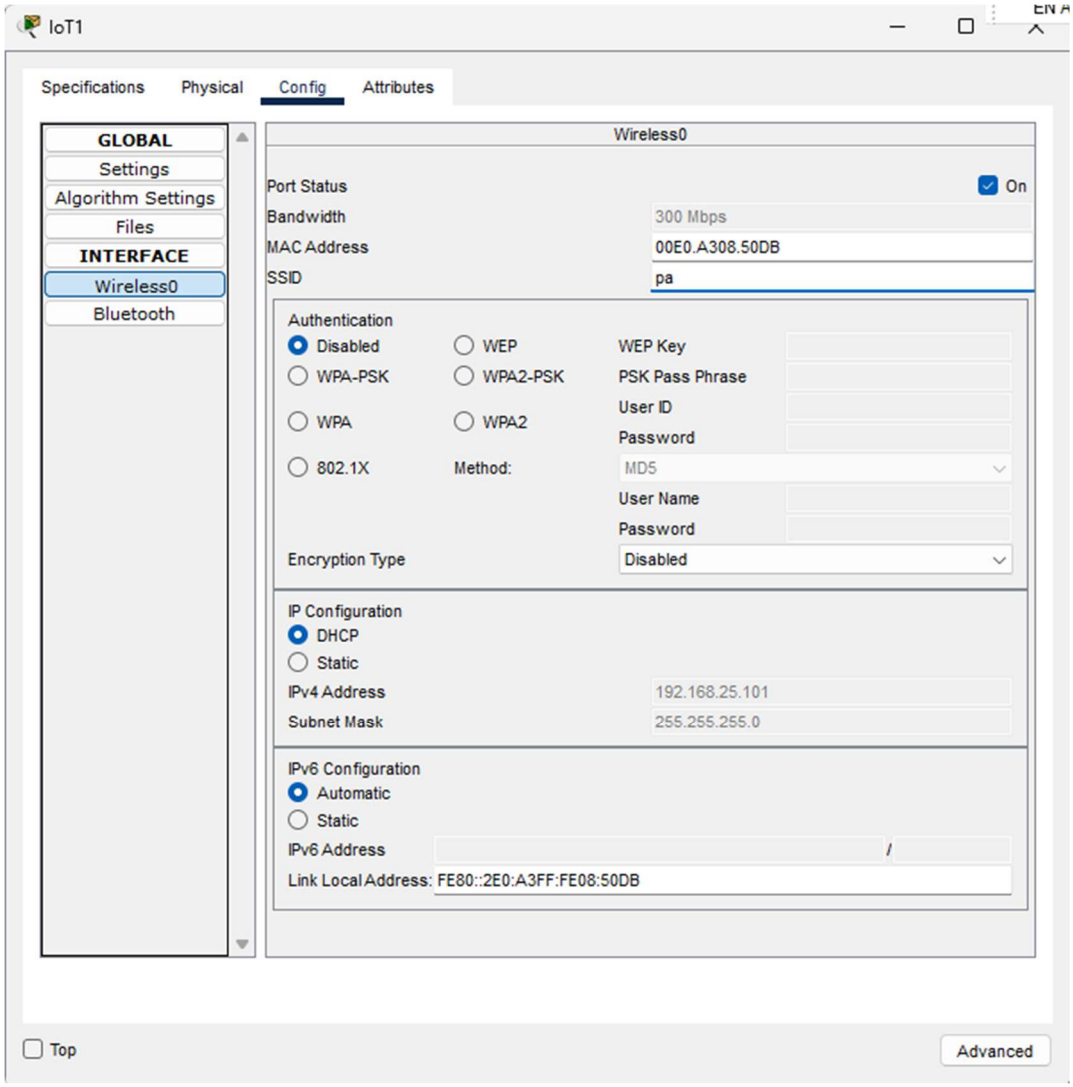


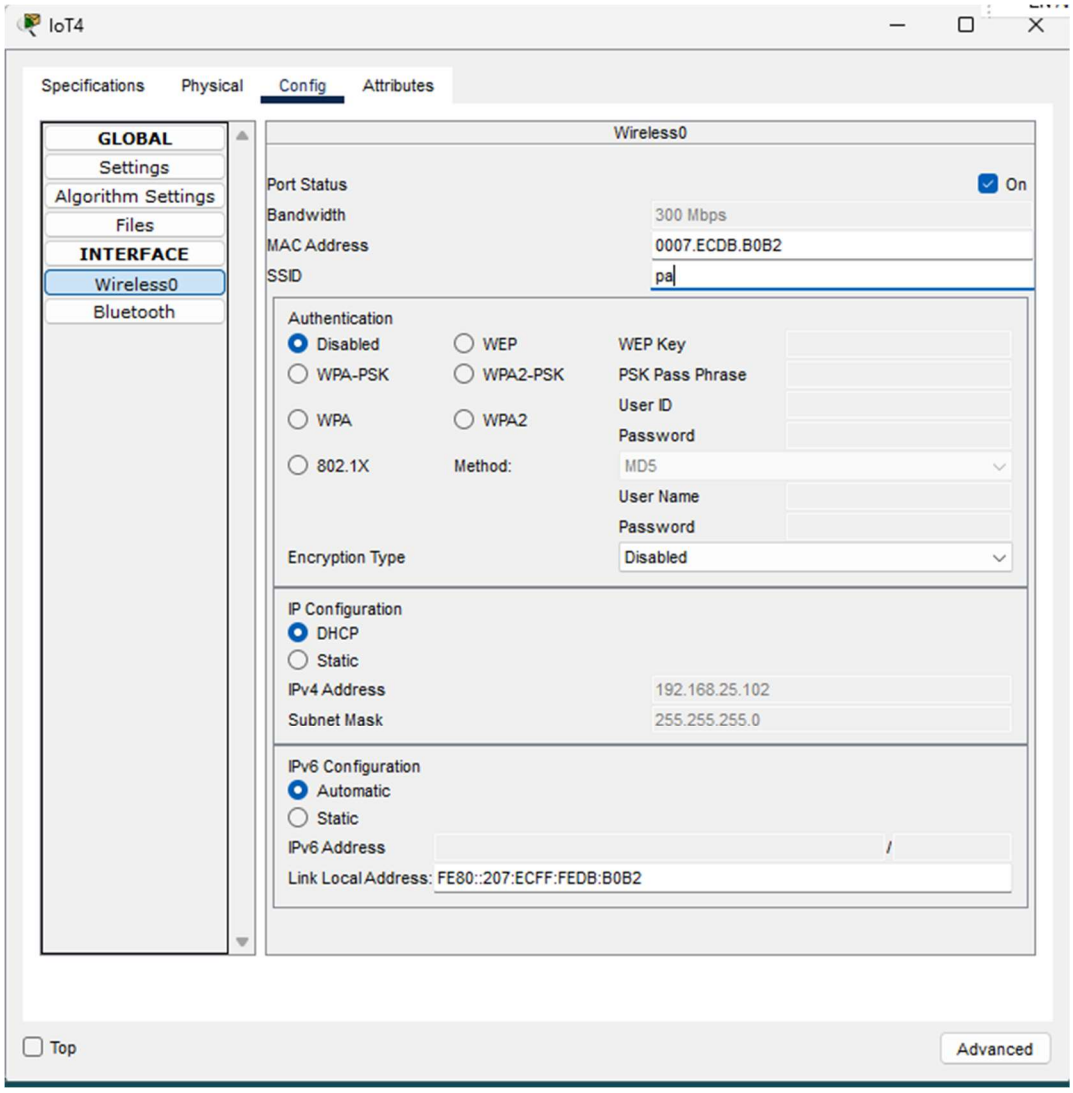
# Registration au server

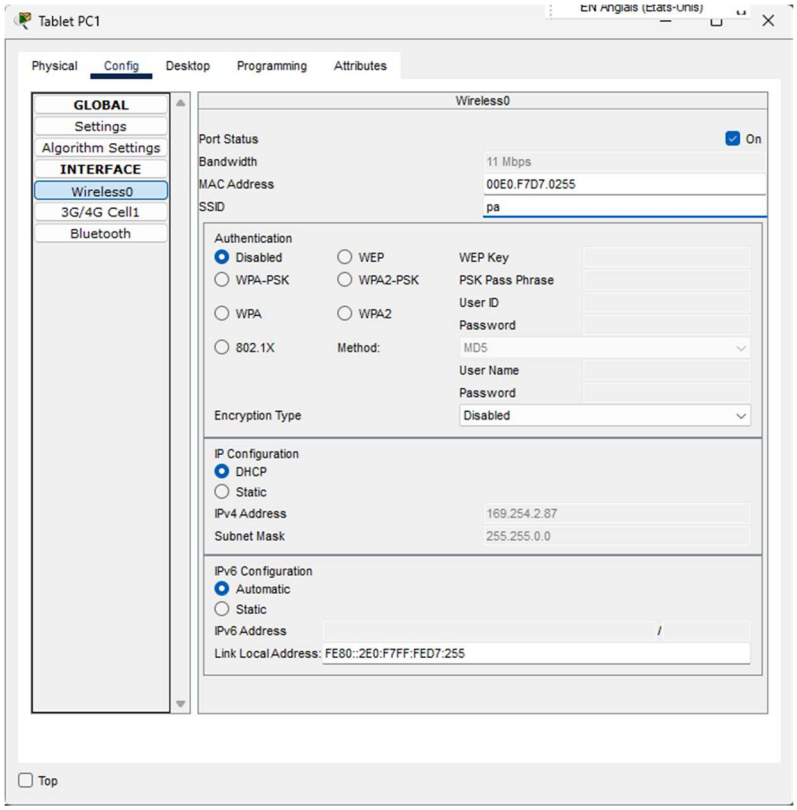

PC1
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
https://192.168.1.2
Go
Stop
Registration Server Login
Username:
Password:
Sign In
Don't have an IoT account? Sign up now

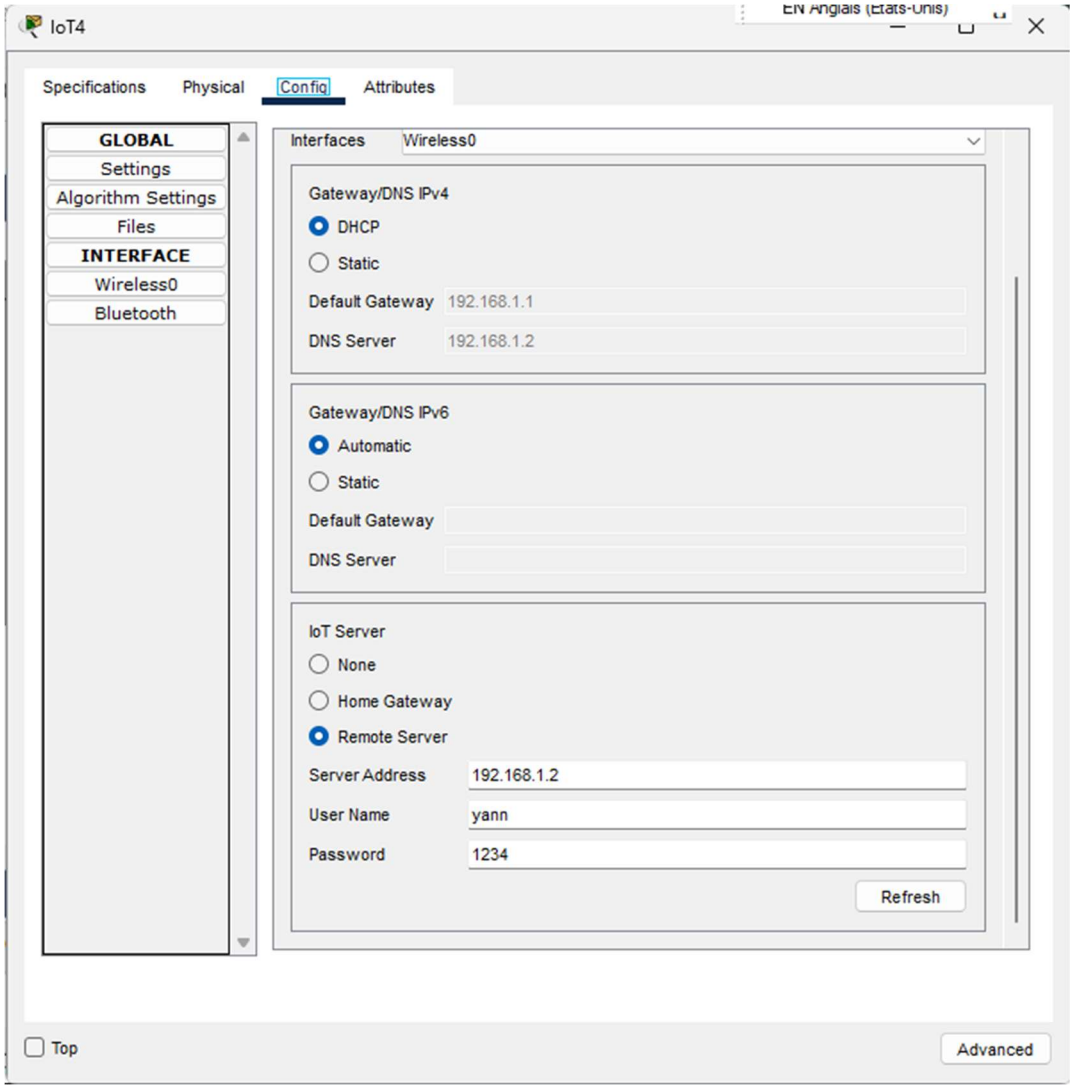

PC1
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
https://192.168.1.2/home.html
Go
Stop
IoT Server - Devices
Home | Conditions | Editor | Log Out

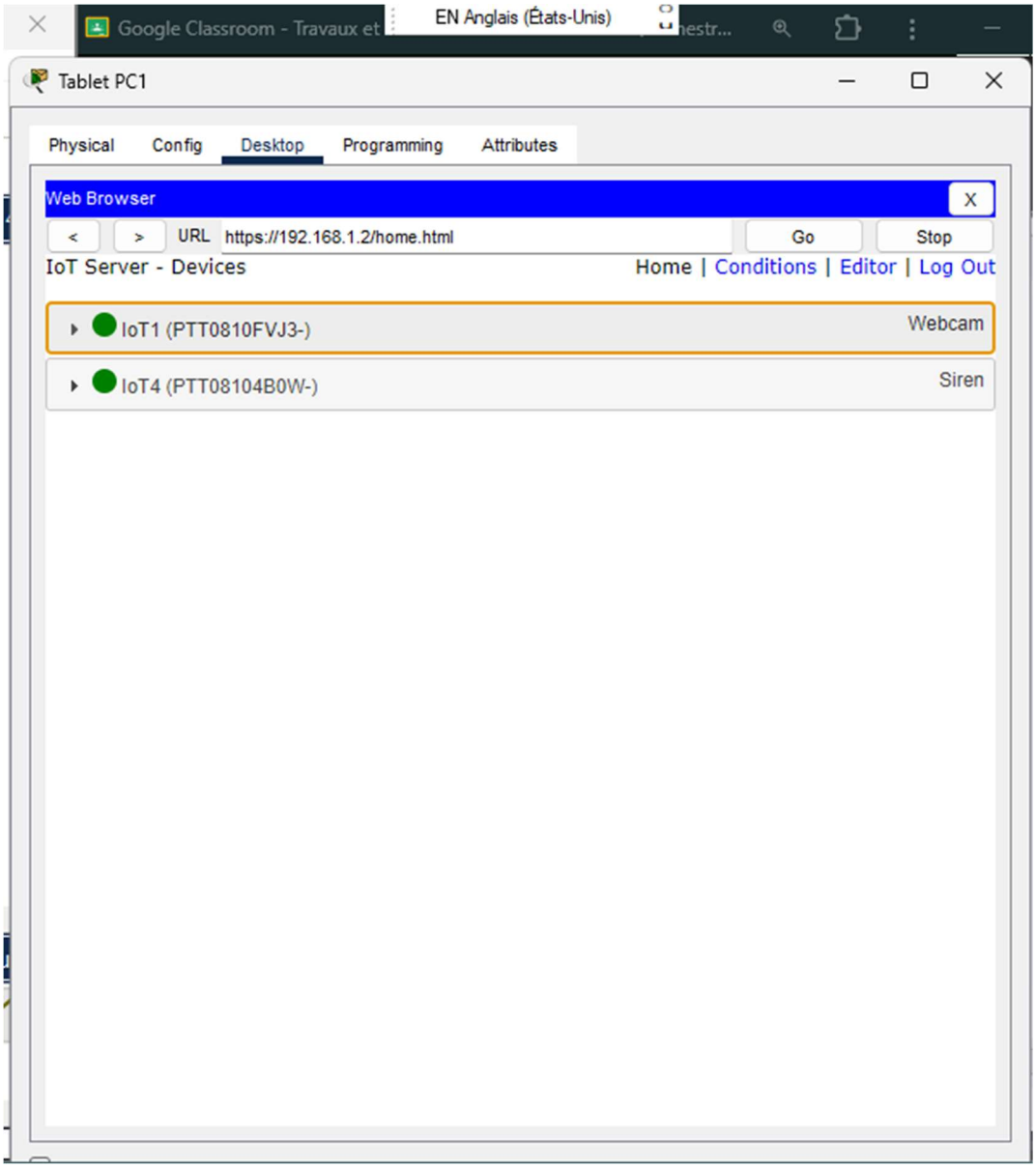
# Configurer les IOT


IoT1
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
00E0.A308.50DB
SSID
pa
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.101
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address:
FE80::2E0:A3FF:FE08:50DB
Top
Advanced


IoT4
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Wireless0
Port Status
On
Bandwidth
300 Mbps
MAC Address
0007.ECDB.B0B2
SSID
pa
Authentication
Disabled
WEP
WPA-PSK
WPA2-PSK
WPA
WPA2
802.1X
Method:
MD5
WEP Key
PSK Pass Phrase
User ID
Password
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
192.168.25.102
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address:
FE80::207:ECFF:FEDB:B0B2
Top
Advanced


Tablet PC1
EN Anglais (Etats-Unis)
Physical
Config
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
Wireless0
3G/4G Cell1
Bluetooth
Wireless0
Port Status
On
Bandwidth
11 Mbps
MAC Address
00E0.F7D7.0255
SSID
pa
Authentication
Disabled
WEP
WEP Key
WPA-PSK
WPA2-PSK
PSK Pass Phrase
User ID
WPA
WPA2
Password
802.1X
Method:
MD5
User Name
Password
Encryption Type
Disabled
IP Configuration
DHCP
Static
IPv4 Address
169.254.2.87
Subnet Mask
255.255.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address:
FE80::2E0:F7FF:FED7:255
Top


IoT4
EN Anglais (Etats-Unis)
Specifications
Physical
Config
Attributes
GLOBAL
Settings
Algorithm Settings
Files
INTERFACE
Wireless0
Bluetooth
Interfaces
Wireless0
Gateway/DNS IPv4
DHCP
Static
Default Gateway
192.168.1.1
DNS Server
192.168.1.2
Gateway/DNS IPv6
Automatic
Static
Default Gateway
DNS Server
IoT Server
None
Home Gateway
Remote Server
Server Address
192.168.1.2
User Name
yann
Password
1234
Refresh
Top
Advanced

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# Conclusion

Ce TD m’a permis d’explorer la configuration réseau avec OSPF et des IoT, consolidant mes compétences techniques essentielles en connectivité.