2. Pre-requisiti: Network pt. 1

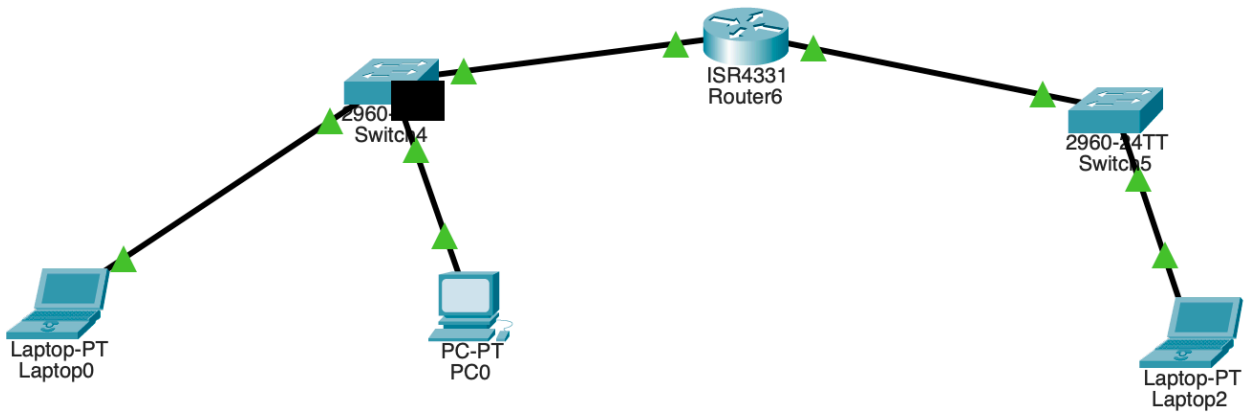
-Comunicazione tra laptop-PT0 (ip 192.168.100.100) e PC-PT-PC0 (ip 192.168.100.103)

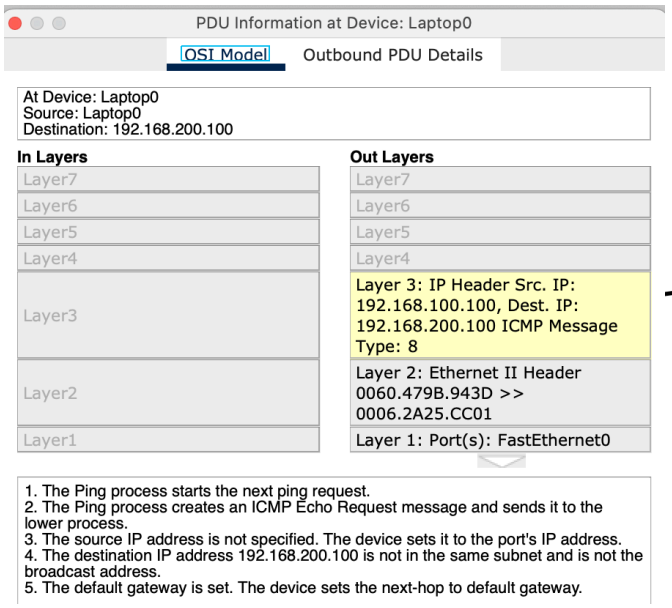
```
C:\>ping 192.168.100.103

Pinging 192.168.100.103 with 32 bytes of data:

Reply from 192.168.100.103: bytes=32 time=2ms TTL=128
Reply from 192.168.100.103: bytes=32 time=10ms TTL=128
Reply from 192.168.100.103: bytes=32 time<1ms TTL=128
Reply from 192.168.100.103: bytes=32 time=13ms TTL=128

Ping statistics for 192.168.100.103:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 6ms
```

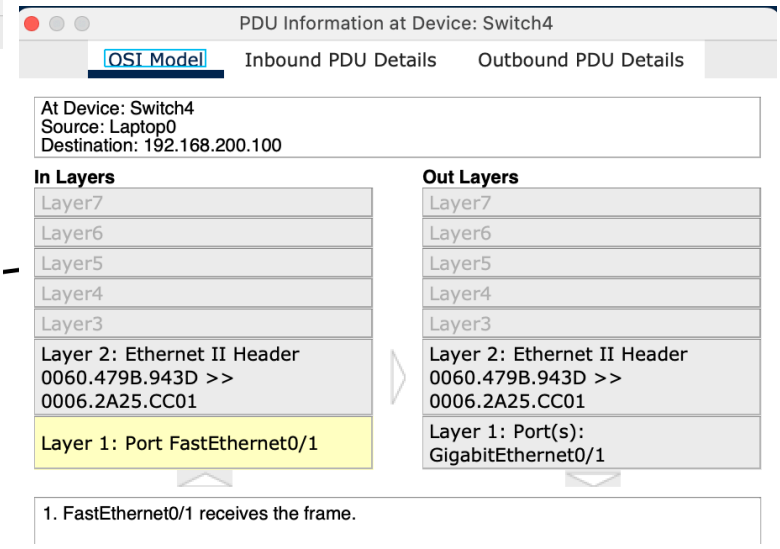
-Comunicazione tra laptop-PTO (ip 192.168.100.100) e lapto-PT2 (ip 192.168.200.100)

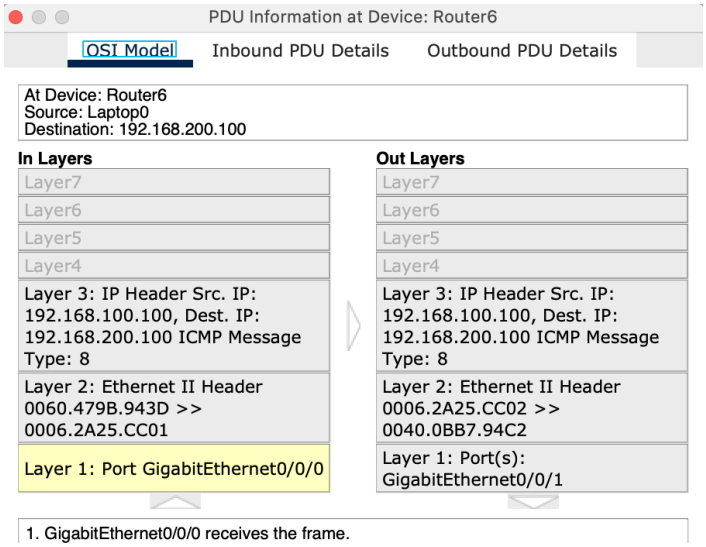
```
C:\>ping 192.168.200.100

Pinging 192.168.200.100 with 32 bytes of data:

Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time=1ms TTL=127
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.200.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

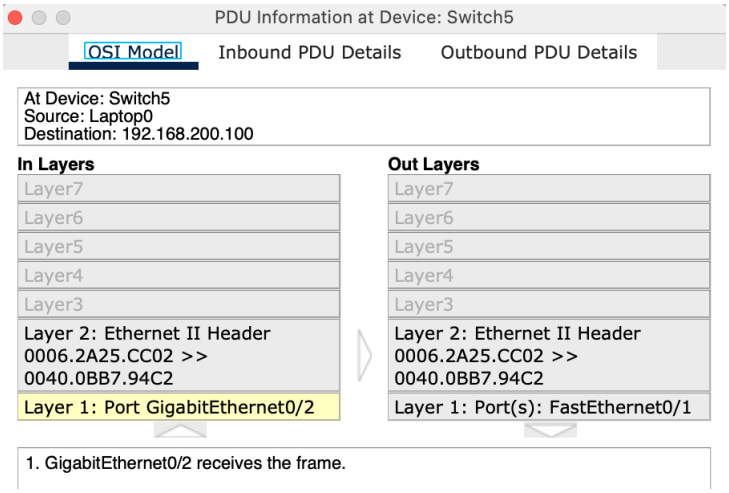
-Come cambiano (source MAC e destination MA) e (source ip & destination ip) quando un pacchetto viene inviato da laptop-pt0 a laptop-pt2

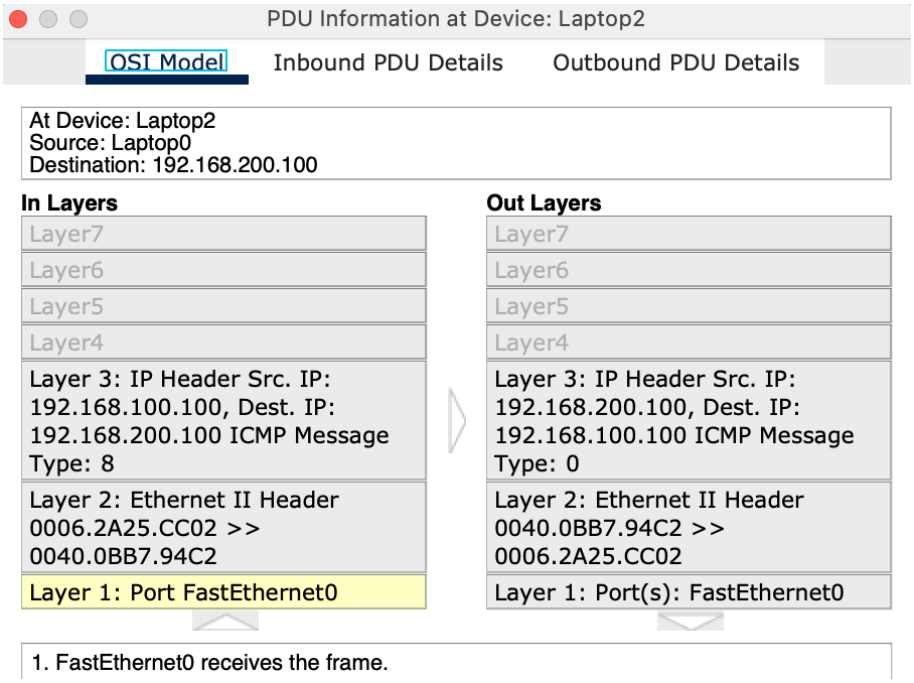



PDU Information at Device: Laptop0
OSI Model
Outbound PDU Details
At Device: Laptop0
Source: Laptop0
Destination: 192.168.200.100
In Layers
Out Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer2
Layer1
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8
Layer 2: Ethernet II Header 0060.479B.943D >> 0006.2A25.CC01
Layer 1: Port(s): FastEthernet0
1. The Ping process starts the next ping request.
2. The Ping process creates an ICMP Echo Request message and sends it to the lower process.
3. The source IP address is not specified. The device sets it to the port's IP address.
4. The destination IP address 192.168.200.100 is not in the same subnet and is not the broadcast address.
5. The default gateway is set. The device sets the next-hop to default gateway.


PDU Information at Device: Switch4
OSI Model
Inbound PDU Details
Outbound PDU Details
At Device: Switch4
Source: Laptop0
Destination: 192.168.200.100
In Layers
Out Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header 0060.479B.943D >> 0006.2A25.CC01
Layer 1: Port FastEthernet0/1
Layer 1: Port(s): GigabitEthernet0/1
1. FastEthernet0/1 receives the frame.


PDU Information at Device: Router6
OSI Model
Inbound PDU Details
Outbound PDU Details
At Device: Router6
Source: Laptop0
Destination: 192.168.200.100
In Layers
Out Layers
Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8
Layer 2: Ethernet II Header 0060.479B.943D >> 0006.2A25.CC01
Layer 1: Port GigabitEthernet0/0/0
Layer 2: Ethernet II Header 0006.2A25.CC02 >> 0040.0BB7.94C2
Layer 1: Port(s): GigabitEthernet0/0/1
1. GigabitEthernet0/0/0 receives the frame.


PDU Information at Device: Switch5
OSI Model
Inbound PDU Details
Outbound PDU Details
At Device: Switch5
Source: Laptop0
Destination: 192.168.200.100
In Layers
Out Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header 0006.2A25.CC02 >> 0040.0BB7.94C2
Layer 1: Port GigabitEthernet0/2
Layer 1: Port(s): FastEthernet0/1
1. GigabitEthernet0/2 receives the frame.


PDU Information at Device: Laptop2
OSI Model
Inbound PDU Details
Outbound PDU Details
At Device: Laptop2
Source: Laptop0
Destination: 192.168.200.100
In Layers
Out Layers
Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8
Layer 2: Ethernet II Header 0006.2A25.CC02 >> 0040.0BB7.94C2
Layer 1: Port FastEthernet0
Layer 3: IP Header Src. IP: 192.168.200.100, Dest. IP: 192.168.100.100 ICMP Message Type: 0
Layer 2: Ethernet II Header 0040.0BB7.94C2 >> 0006.2A25.CC02
Layer 1: Port(s): FastEthernet0
1. FastEthernet0 receives the frame.