Date: 17/07/2024

Lab Practical #05:

Study the concept of VLAN using packet tracer.

Practical Assignment #05:

1. **Implement the different network structures in VLAN and VLAN trunking. Also check connectivity between them using ping command or PDU utility.**

Instructions:

1. Different VLANs configuration setup screenshot. (VLAN example given by lab faculty)
2. Write steps to create VLANs in packet tracer.
3. Mention IP address of each pc as label.
4. Ping command or PDU screenshot between two VLANs.

1.

- Drag and drop a switch onto the workspace (e.g., a 2960 switch).
- Drag and drop four PCs onto the workspace.
- Connect each PC to the switch using Copper Straight-Through cables.
- Assign IP addresses to every pc and change the label name of pc through ip address.
- Click on Switch,go to in Config=>VLAN Databse. Add Vlan Number And Name according to group.
- FastEthernet0/1 and FastEthernet0/2 are assigned to VLAN 100 (Group 1 Student).
- FastEthernet0/3 and FastEthernet0/4 are assigned to VLAN 150 (Group 2 Faculty).
- you will successfully set up a VLAN configuration with two separate groups of PCs on a single switch check connectivity between them using ping command or PDU utility.

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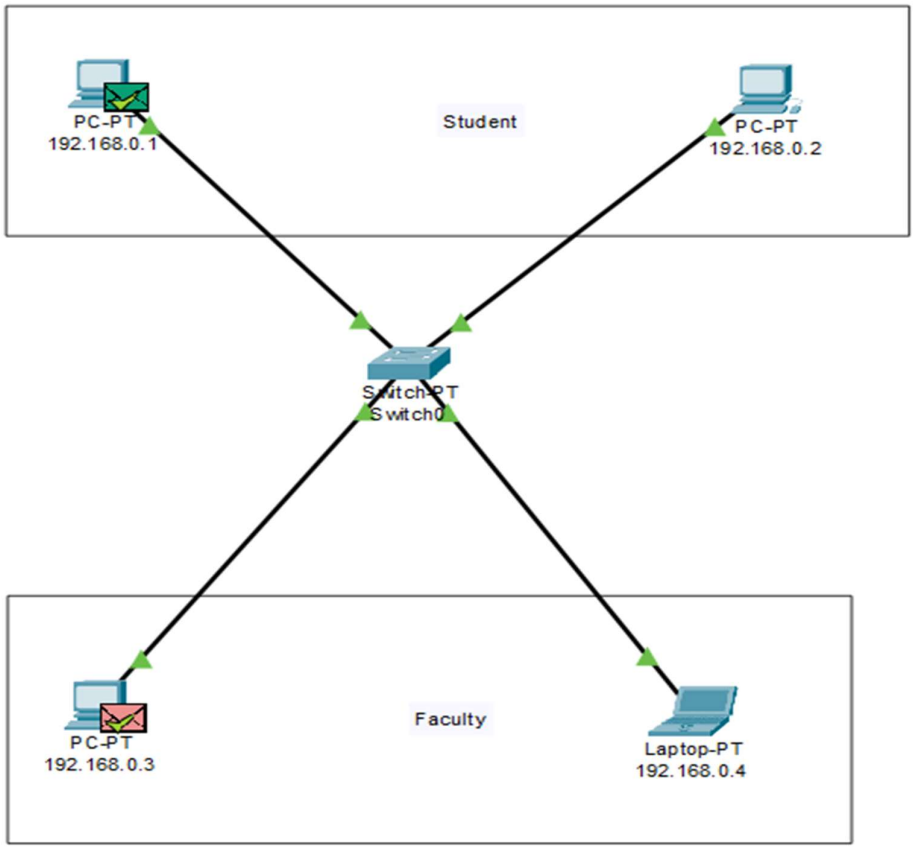

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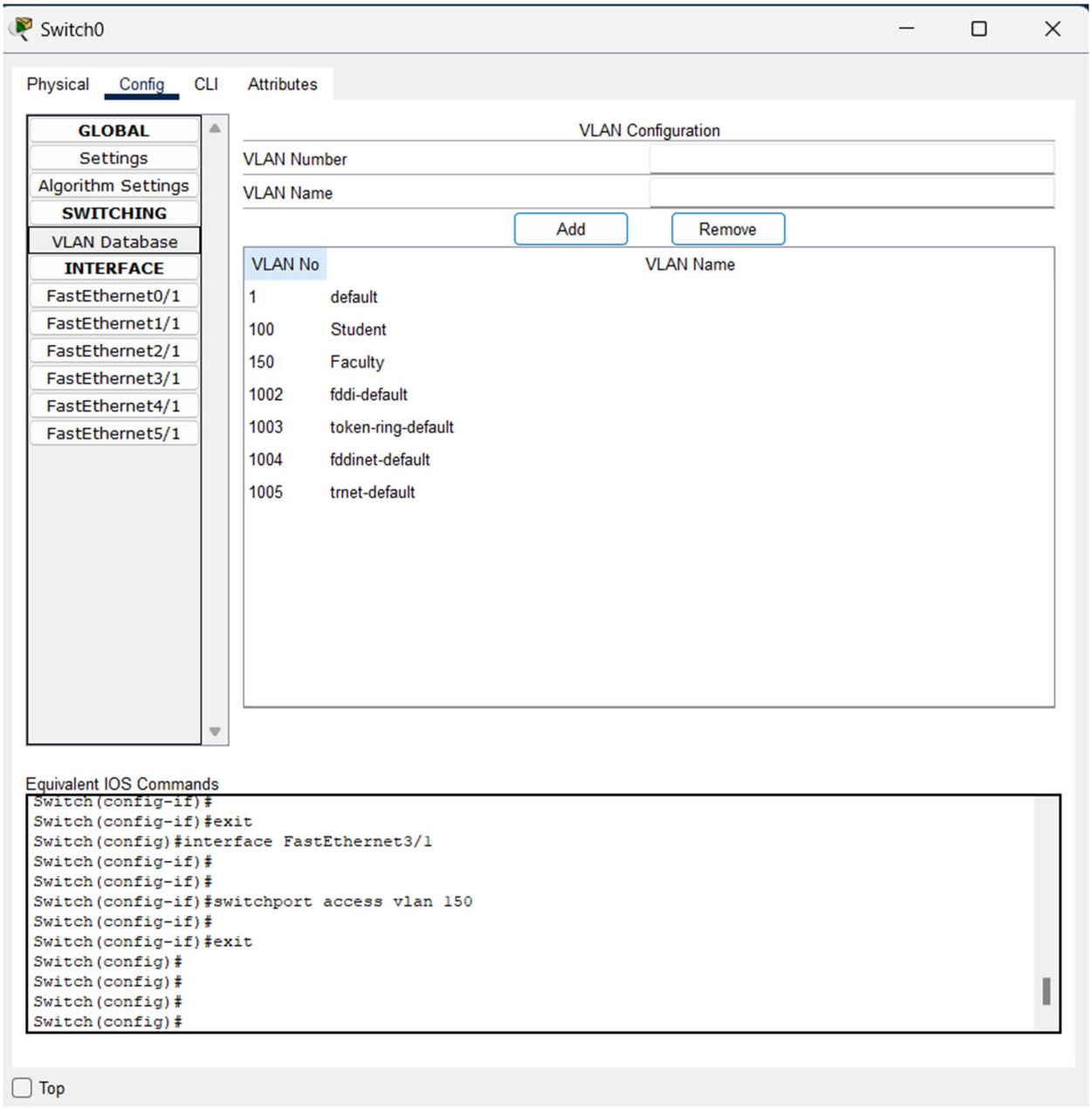

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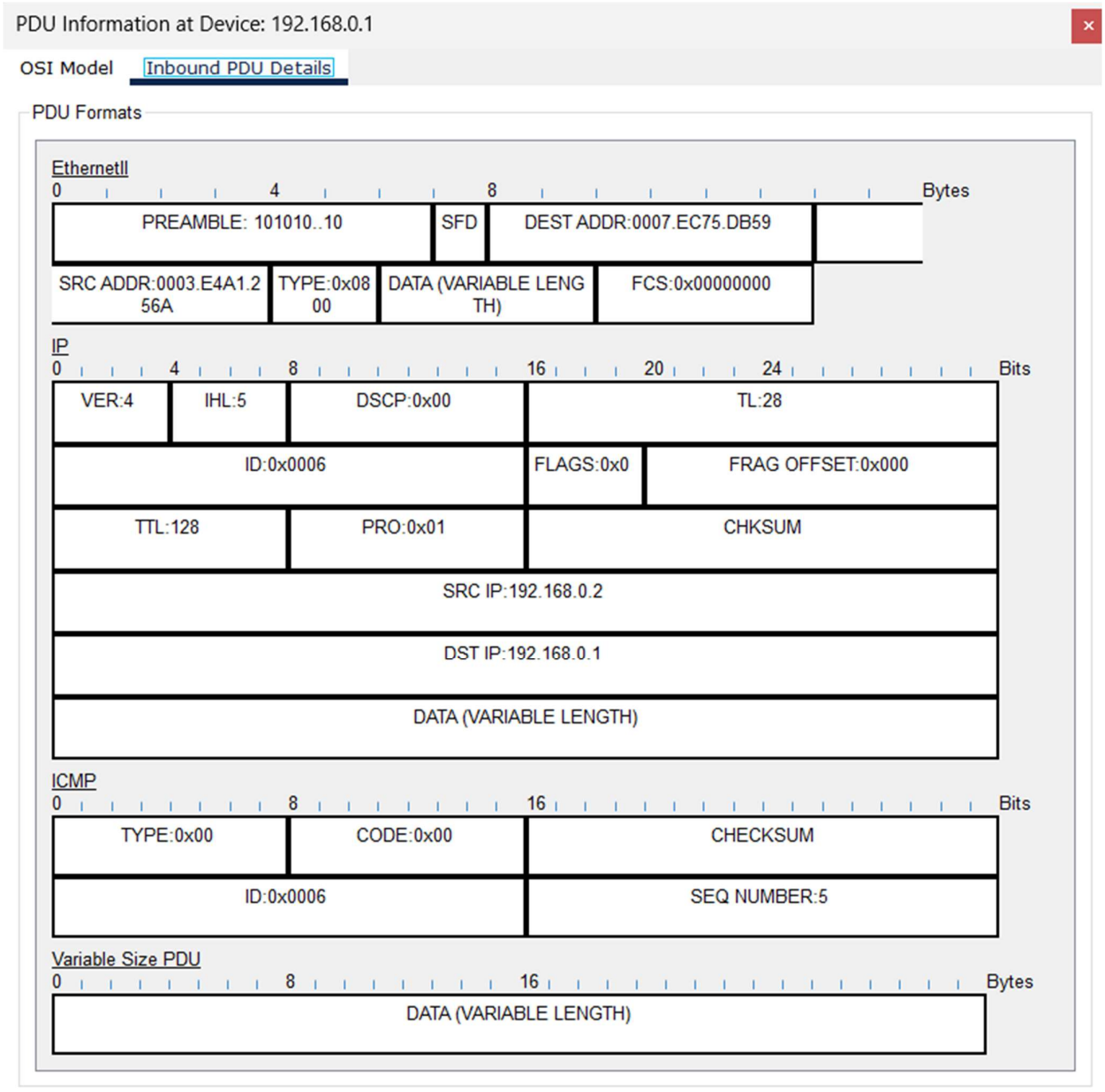

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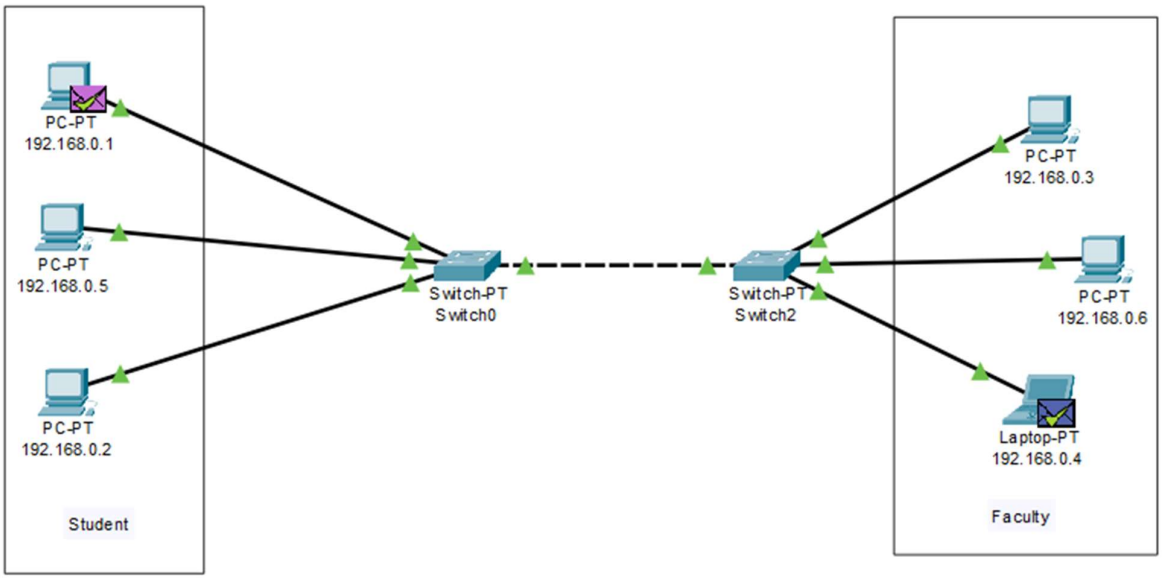
2.

- Drag and drop a 2 switch onto the workspace (e.g., a 2960 switch).
- Drag and drop Six PCs onto the workspace.
- Connect 3 PC to the switch using Copper Straight-Through cables and Connect Another 3 PC to the another switch using Copper Straight-Through cables and Connect both Switch each other.
- Assign IP addresses to every pc and change the label name of pc through ip address.
- Click on Switch,go to in Config=>VLAN Databse. Add Vlan Number And Name according to group.
- FastEthernet0/1 and FastEthernet0/2 and FastEthernet0/3 of switch 1 are assigned to VLAN 100 (group 1 student).
- FastEthernet0/1 and FastEthernet0/2 and FastEthernet0/3 of switch 1 are assigned to VLAN 150 (group 2 Faculty).
- you will successfully set up a VLAN configuration with two separate groups of PCs on a single switch check connectivity between them using ping command or PDU utility.



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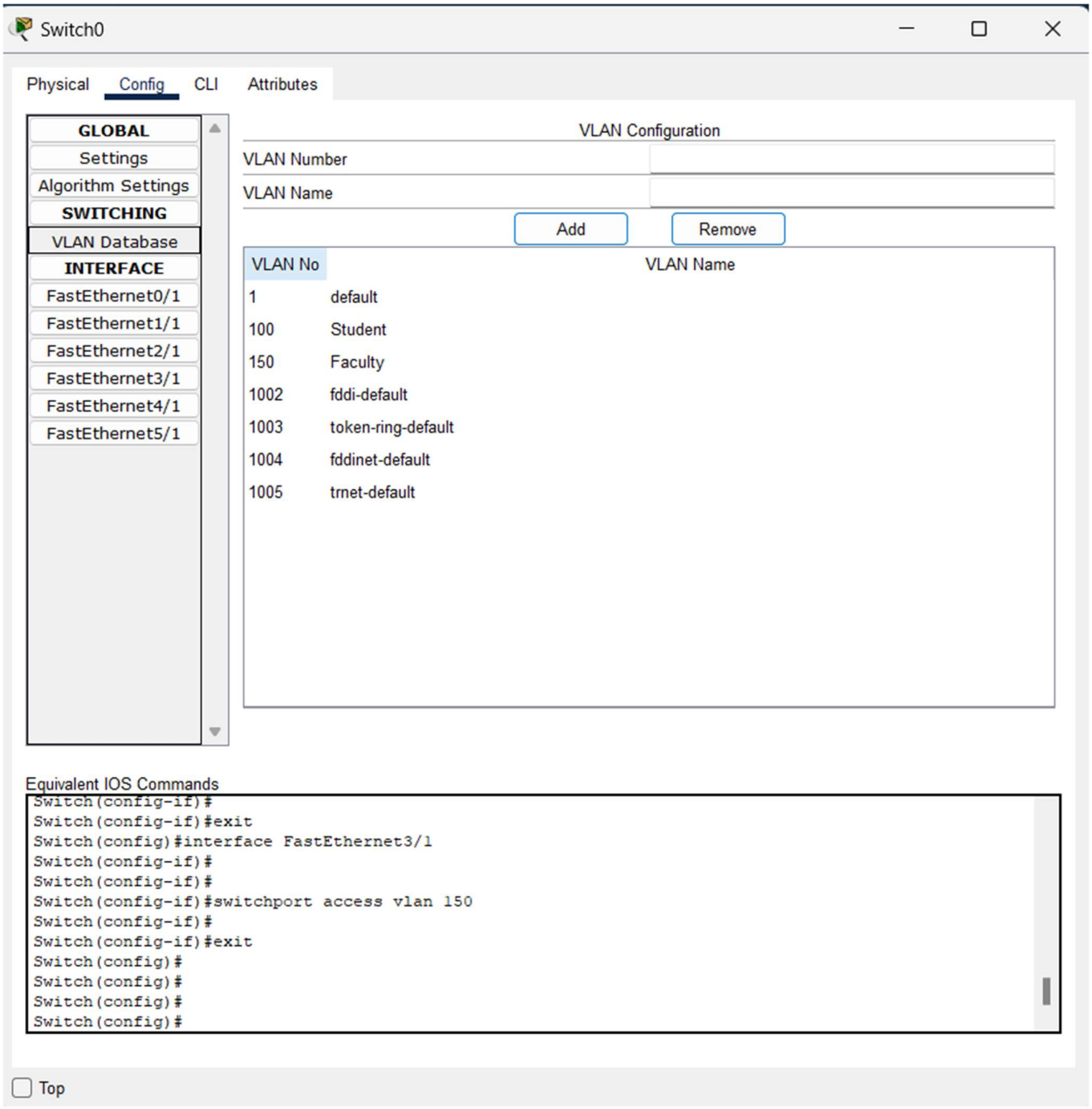

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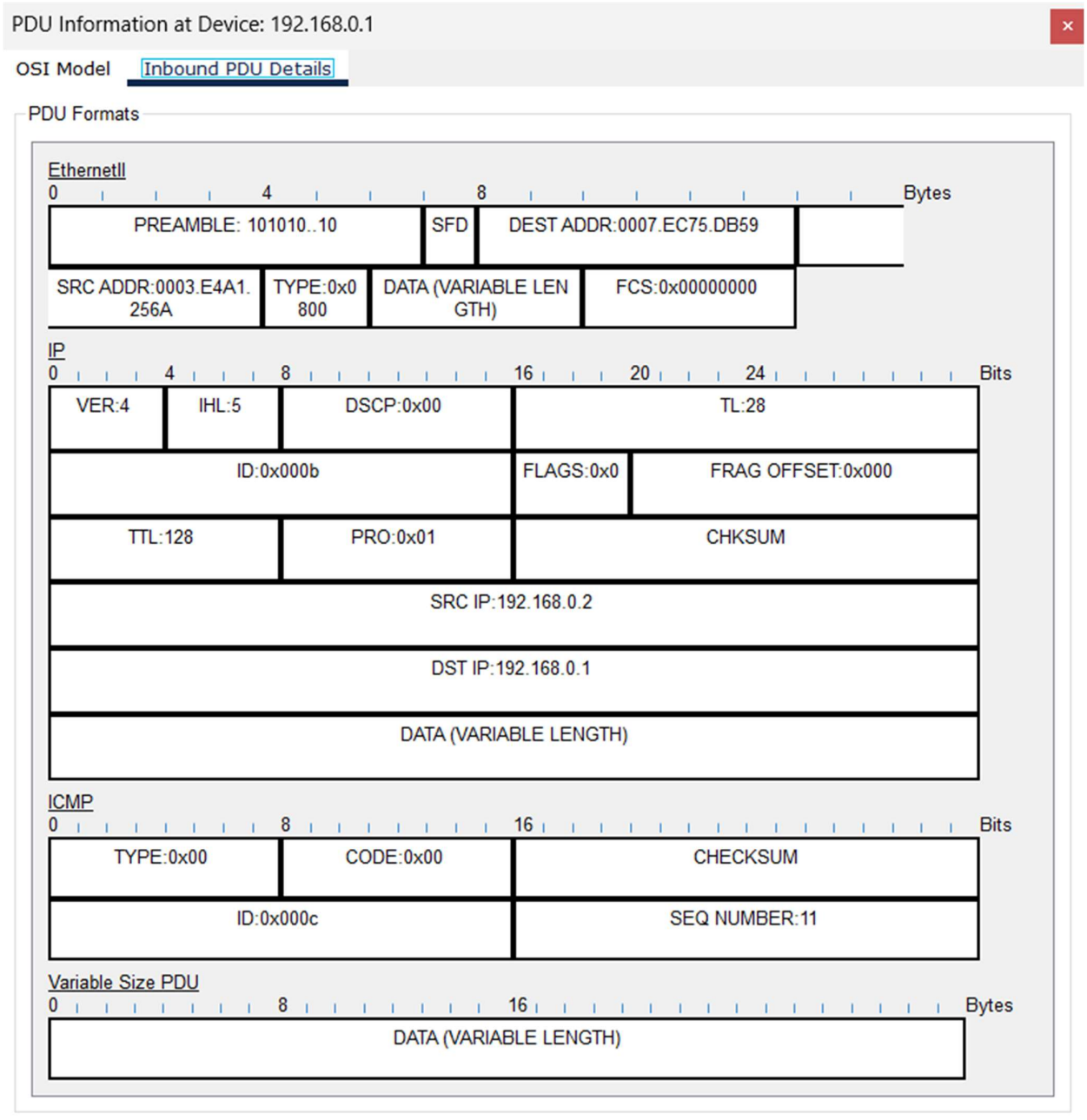

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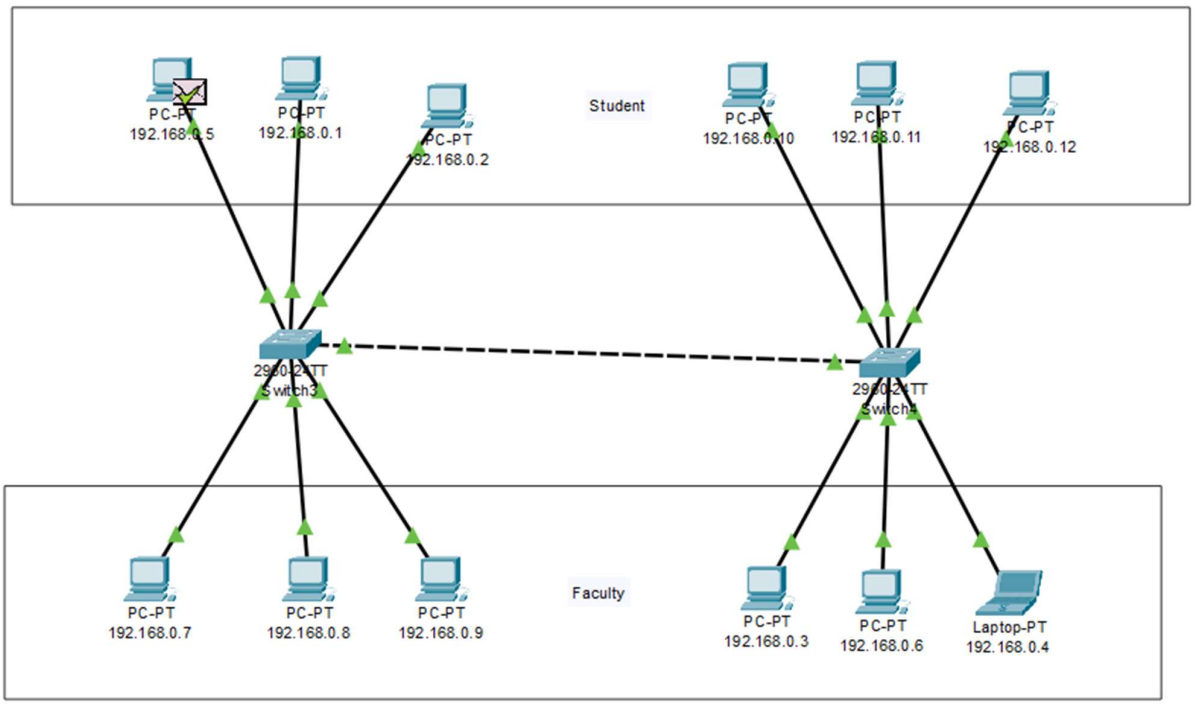
3.

- Drag and drop a 2 switch onto the workspace (e.g., a 2960 switch).
- Drag and drop twelve PCs onto the workspace.
- Connect 6 PC to the switch using Copper Straight-Through cables and Connect Another 6 PC to the another switch using Copper Straight-Through cables and Connect both Switch each other.
- Assign IP addresses to every pc and change the label name of pc through ip address.
- Click on Switch,go to in Config=>VLAN Databse. Add Vlan Number And Name according to group.
- FastEthernet0/1 and FastEthernet0/2 and FastEthernet0/3 of switch 1 are assigned to VLAN 100 (group 1 student).
- FastEthernet0/4 and FastEthernet0/5 and FastEthernet0/6 of switch 1 are assigned to VLAN 150 (group 2 faculty).
- FastEthernet0/1 and FastEthernet0/2 and FastEthernet0/3 of switch 2 are assigned to VLAN 100 (group 1 student).
- FastEthernet0/4 and FastEthernet0/5 and FastEthernet0/6 of switch 2 are assigned to VLAN 150 (group 2 faculty).
- FastEthernet0/3 and FastEthernet0/4 of switch 2 are assigned to VLAN 250 (group HOD).
- you will successfully set up a VLAN configuration with two separate groups of PCs on a single switch check connectivity between them using ping command or PDU utility.



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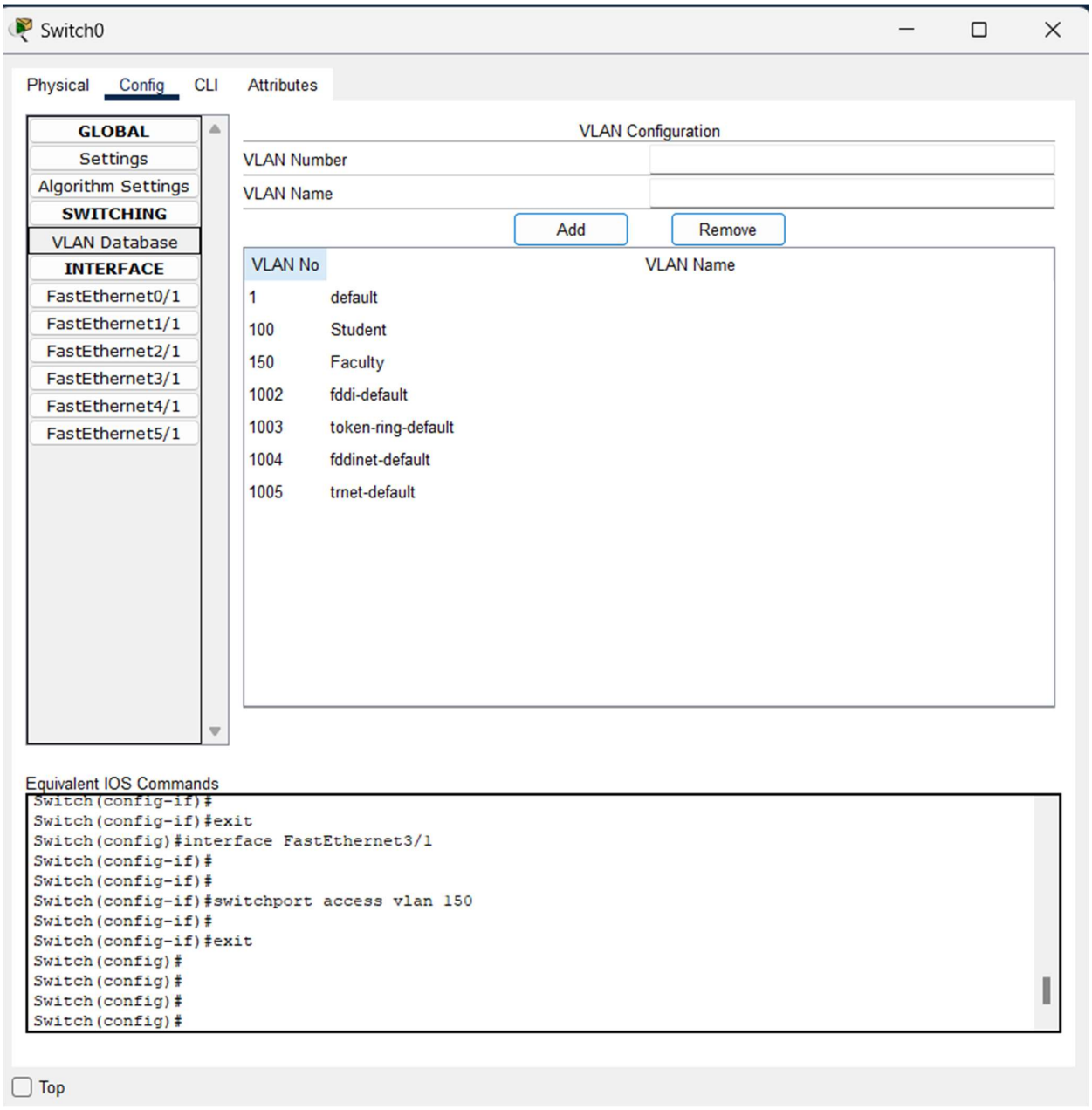

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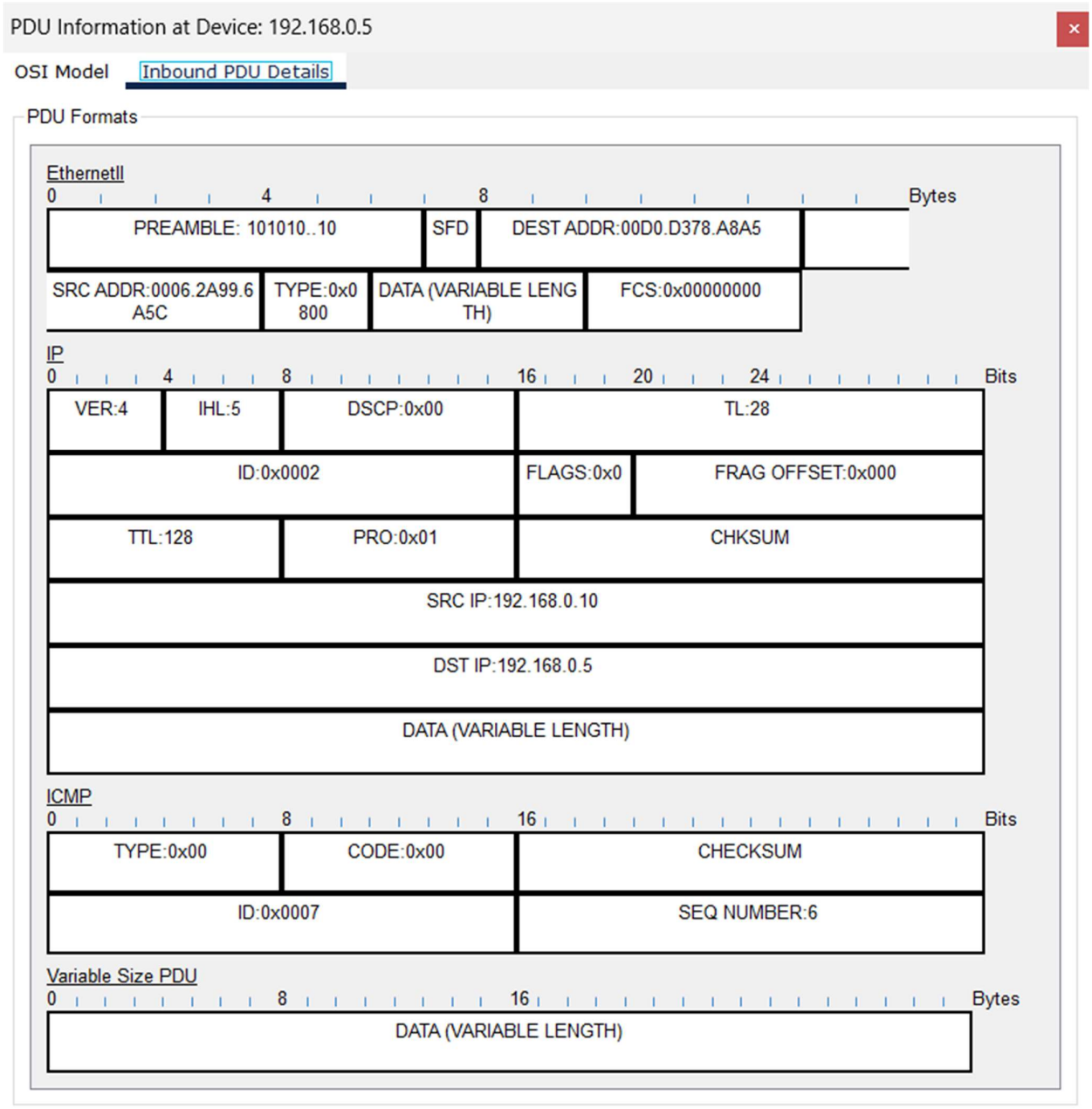

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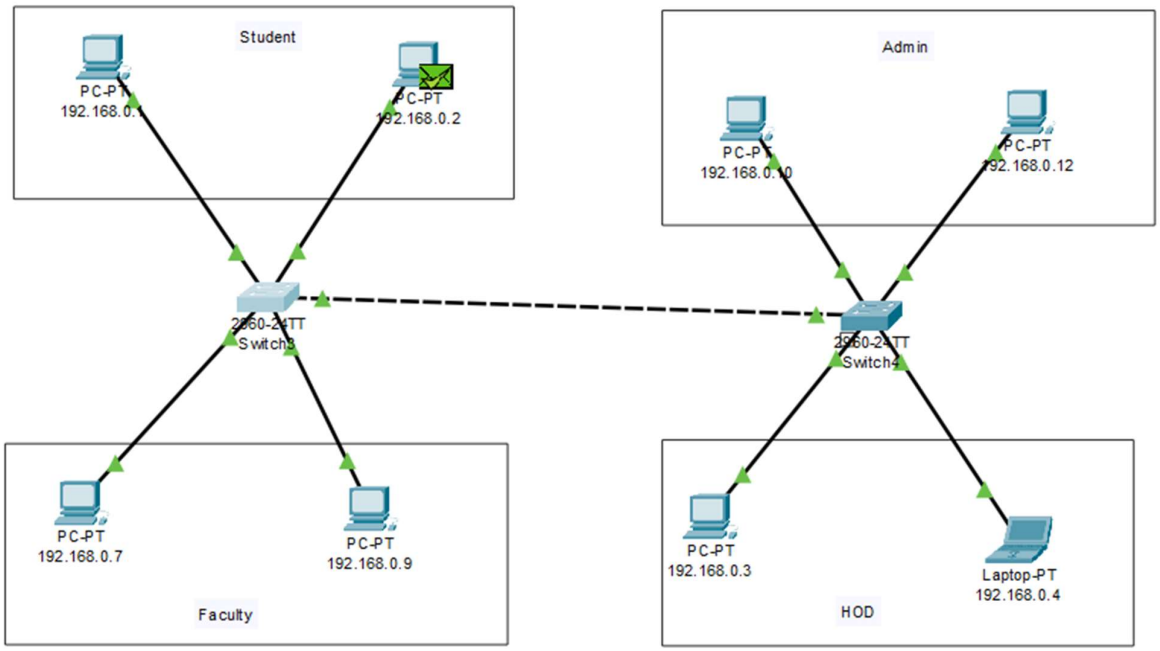
4.

- Drag and drop a 2 switch onto the workspace (e.g., a 2960 switch).
- Drag and drop eight PCs onto the workspace.
- Connect 4 PC to the switch using Copper Straight-Through cables and Connect Another 4 PC to the another switch using Copper Straight-Through cables and Connect both Switch each other.
- Assign IP addresses to every pc and change the label name of pc through ip address.
- Click on Switch,go to in Config=>VLAN Databse. Add Vlan Number And Name according to group.
- FastEthernet0/1 and FastEthernet0/2 of switch 1 are assigned to VLAN 100 (group 1 student).
- FastEthernet0/3 and FastEthernet0/4 of switch 1 are assigned to VLAN 150 (group 2 Faculty).
- FastEthernet0/1 and FastEthernet0/2 of switch 2 are assigned to VLAN 200 (group Admin).
- FastEthernet0/3 and FastEthernet0/4 of switch 2 are assigned to VLAN 250 (group HOD).
- you will successfully set up a VLAN configuration with four separate groups of PCs on a single switch check connectivity between them using ping command or PDU utility.



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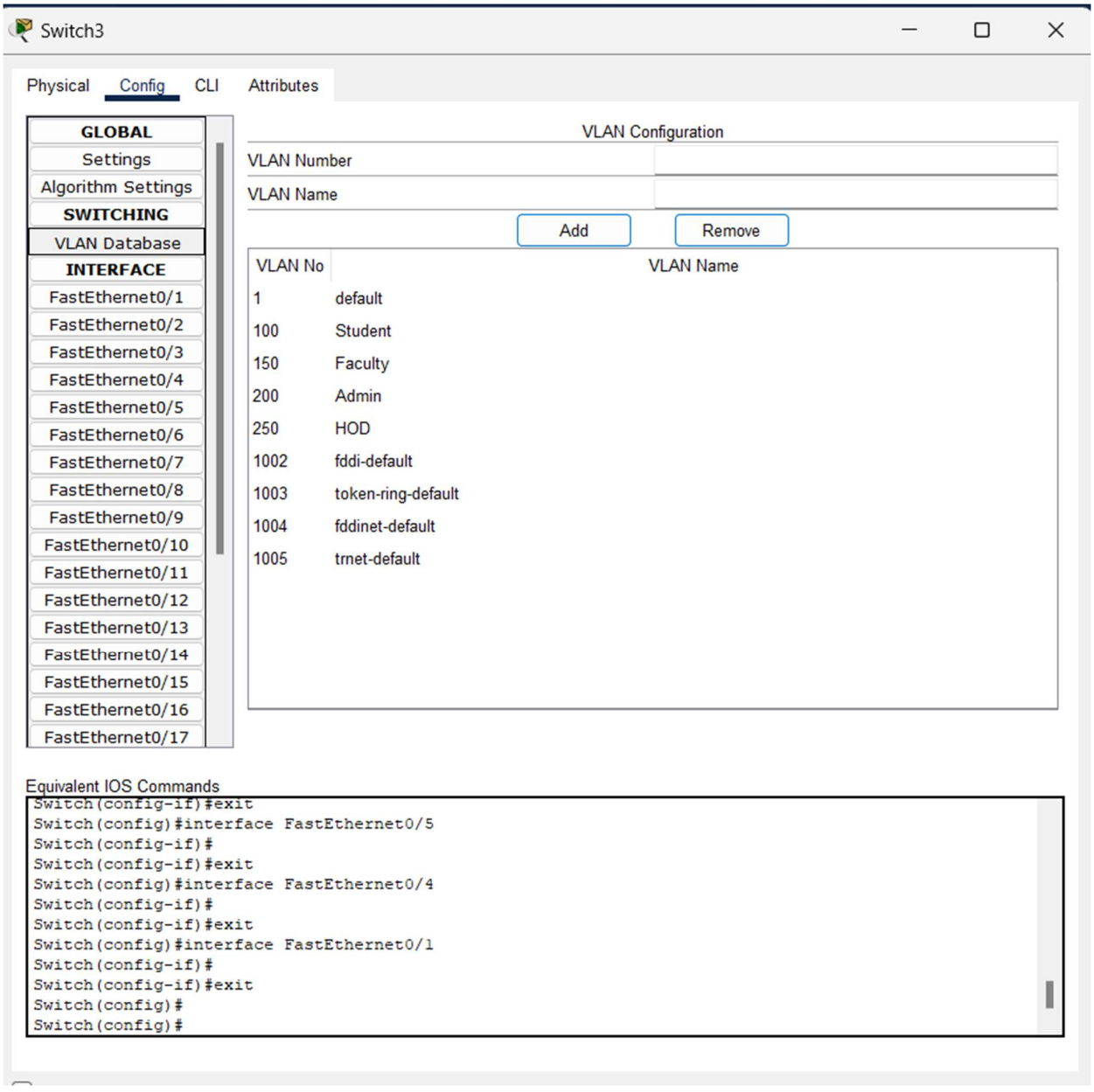

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