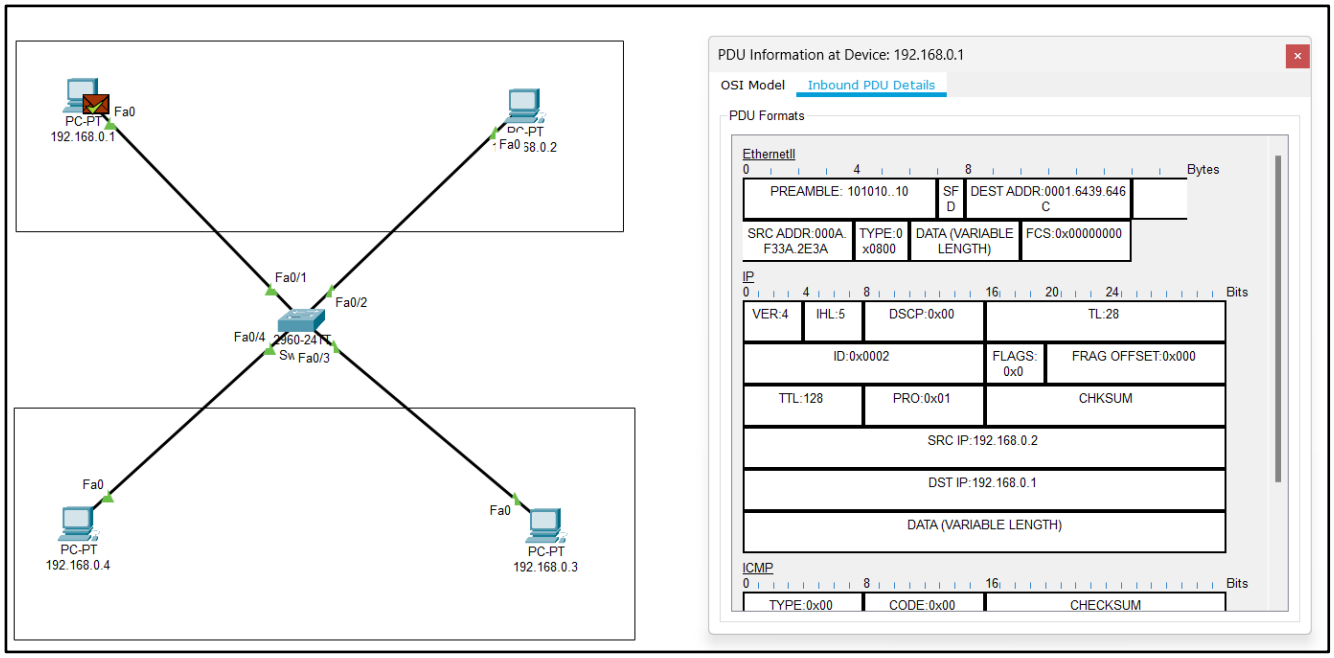
Date: 18/7/24

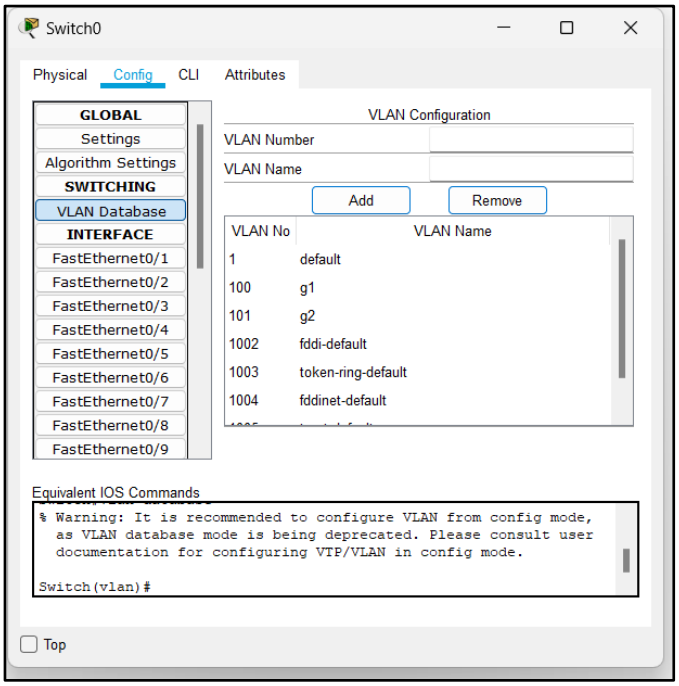
Lab Practical #05:

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.**
   - **VLAN-1**





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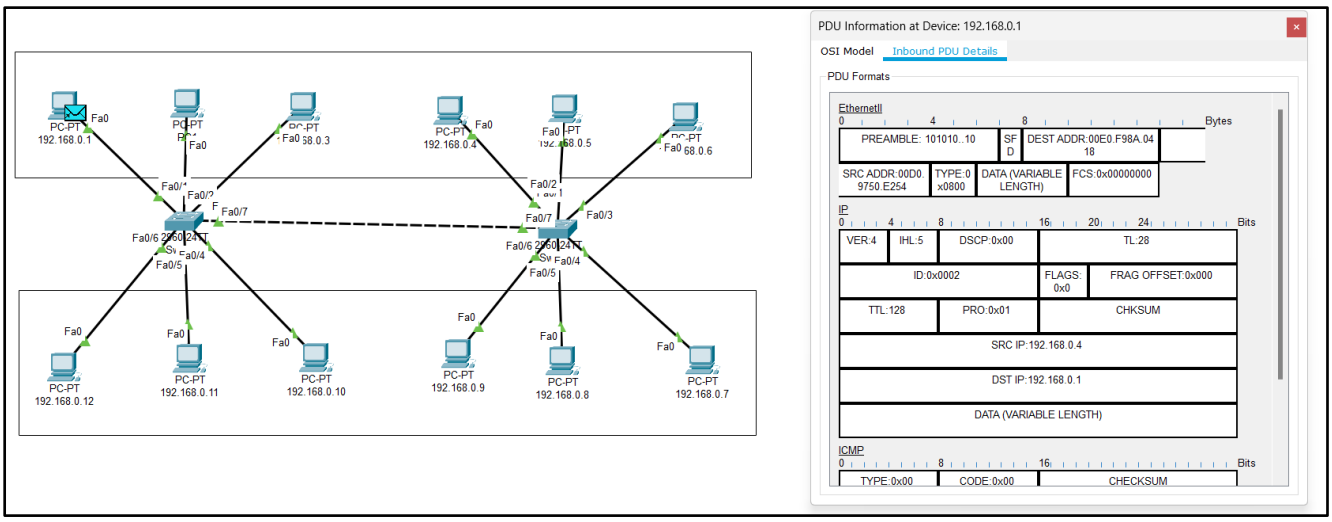
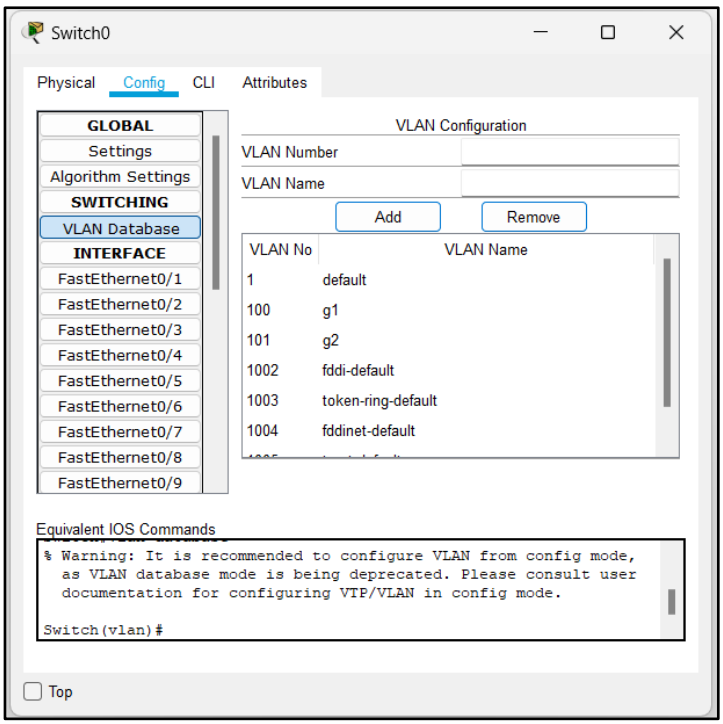
- **Steps for create VLAN:-**
  1) Configure a Switch and go to 'VLAN Database' → then create a database g1 and g2.
  2) Configure 4 PC with labeled with IP address. And connect all four with Switch.
  3) Open Switch Dialog and configure PC-1 and PC-2 in g1 database with access state and configure PC-1 and PC-2 in g2 database with access state.
  4) So as per above image we create a to VLAN g1 and g2.
  5) The packet are transfer one PC to another PC with an g1 VLAN like as The packet are transfer one PC to another PC with an g2 VLAN.

- **VLAN-2**





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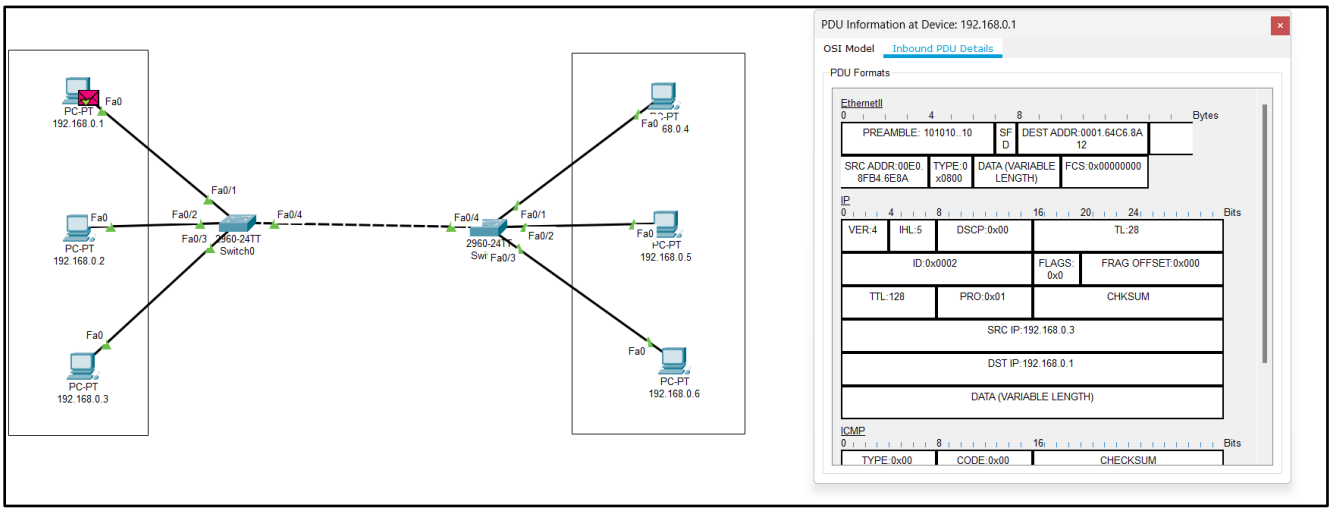
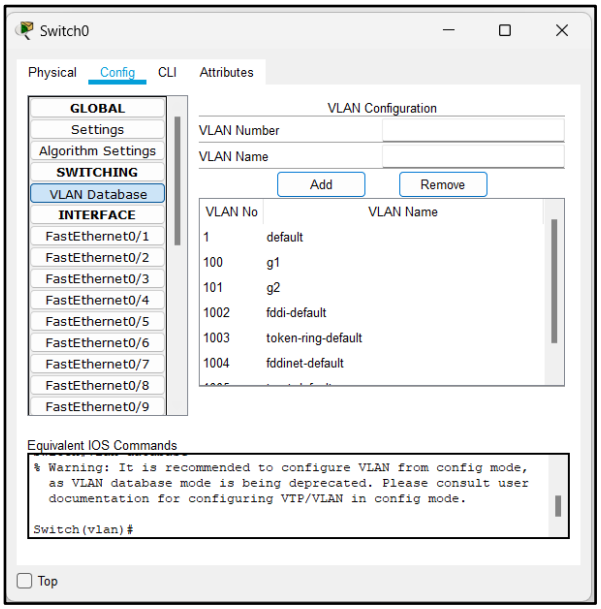
- **Steps for create VLAN:-**
  1) Configure a Switch1 and go to 'VLAN Database' → then create a database g1 and g2.
  2) Configure a Switch2 and go to 'VLAN Database' → then create a database g1 and g2.
  3) Configure 12 PC with labeled with IP address. And connect all First 6 PC with Switch1 and remaining 6 PC with Switch2.
  4) Open Switch Dialog and configure PC-1, PC-2, PC-3, PC-4, PC-5 and PC-6 in g1 database with access state and configure PC-1, PC-2, PC-3, PC-4, PC-5 and PC-6 in g2 database with access state.
  5) So as per above image we create a to VLAN g1 and g2.
  6) Switch to switch configure database with trunk state.
  7) The packet are transfer one PC to another PC with an g1 VLAN like as The packet are transfer one PC to another PC with an g2 VLAN.

- **VLAN-3**





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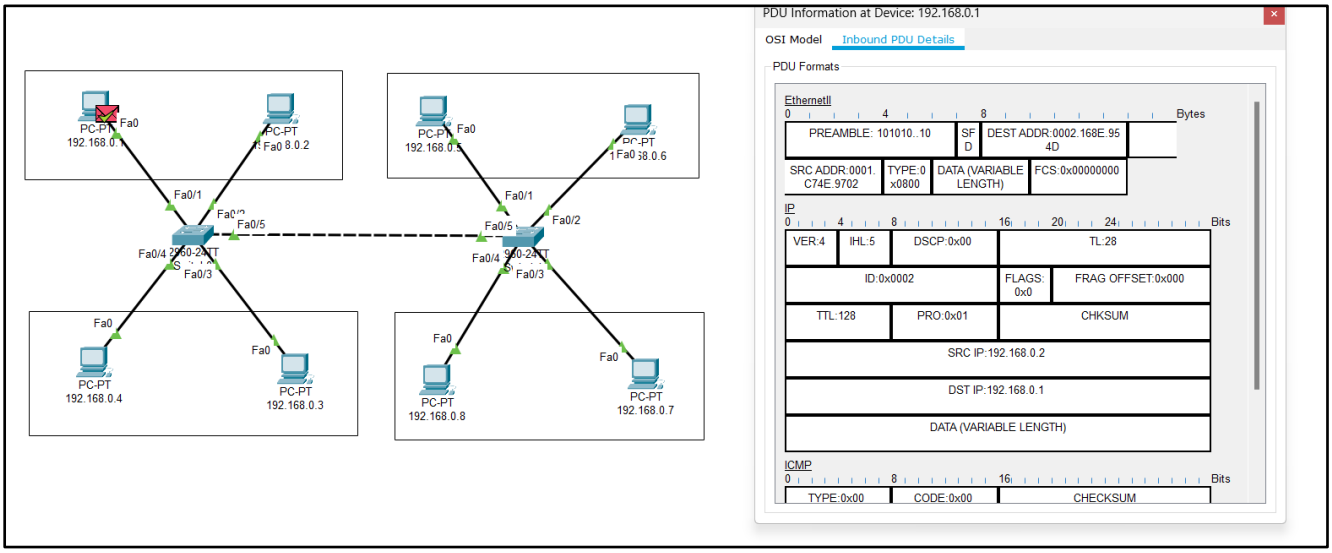
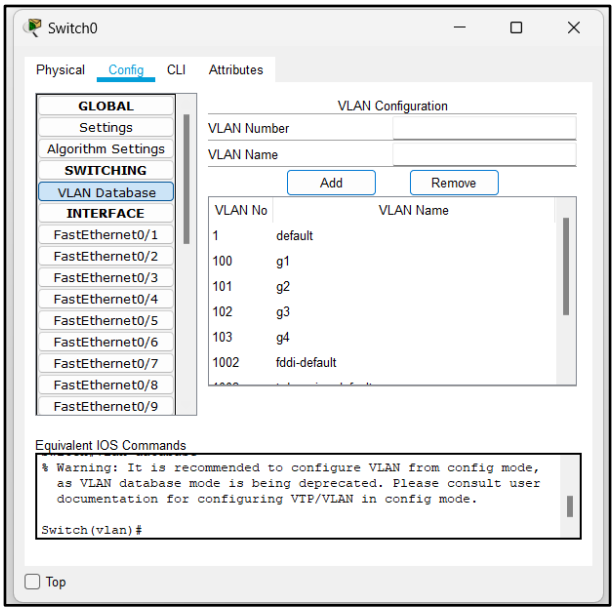
- **Steps for create VLAN:-**
  1) Configure a Switch1 and go to 'VLAN Database' → then create a database g1.
  2) Configure a Switch2 and go to 'VLAN Database' → then create a database g2.
  3) Configure 3 PC with labeled with IP address. And connect all three with Switch1.
  4) Configure 3 PC with labeled with IP address. And connect all three with Switch2.
  5) Open Switch Dialog and configure PC-1, PC-2 and PC-3 in g1 database with access state and configure PC-1, PC-2 and PC-3 in g2 database with access state.
  6) So as per above image we create a to VLAN g1 and g2.
  7) Switch to switch configure database with trunk state.
  8) The packet are transfer one PC to another PC with an g1 VLAN like as The packet are transfer one PC to another PC with an g2 VLAN.

- **VLAN-4**





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- **Steps for create VLAN:-**
  1) Configure a Switch1 and go to 'VLAN Database' → then create a database g1 and g2.
  2) Configure a Switch2 and go to 'VLAN Database' → then create a database g3 and g4.
  3) Configure 2 PC with labeled with IP address. And connect all two with Switch1.
  4) Configure 2 PC with labeled with IP address. And connect all two with Switch2.
  5) Open Switch Dialog and configure PC-1 and PC-2 in g1 database, PC-3 and PC-4 in g2 database with access state and configure PC-1 and PC-2 in g3 database, PC-3 and PC-4 in g4 database with access state.
  6) So as per above image we create a to VLAN g1, g2, g3 and g4.
  7) Switch to switch configure database with trunk state.
  8) The packet are transfer one PC to another PC with an g1 VLAN like as The packet are transfer one PC to another PC with an g2,g3,g4 VLAN.