**Inter VLAN Routing**

**What is inter Vlan routing?**

Inter-VLAN routing is the process of enabling communication between devices located in different VLANs (Virtual Local Area Networks).

Why we use inter vlan routing?

* Enable communication across VLAN’s
* Improve network security
* Efficient Resource Sharing
* Optimizing Traffic Management
* Scability

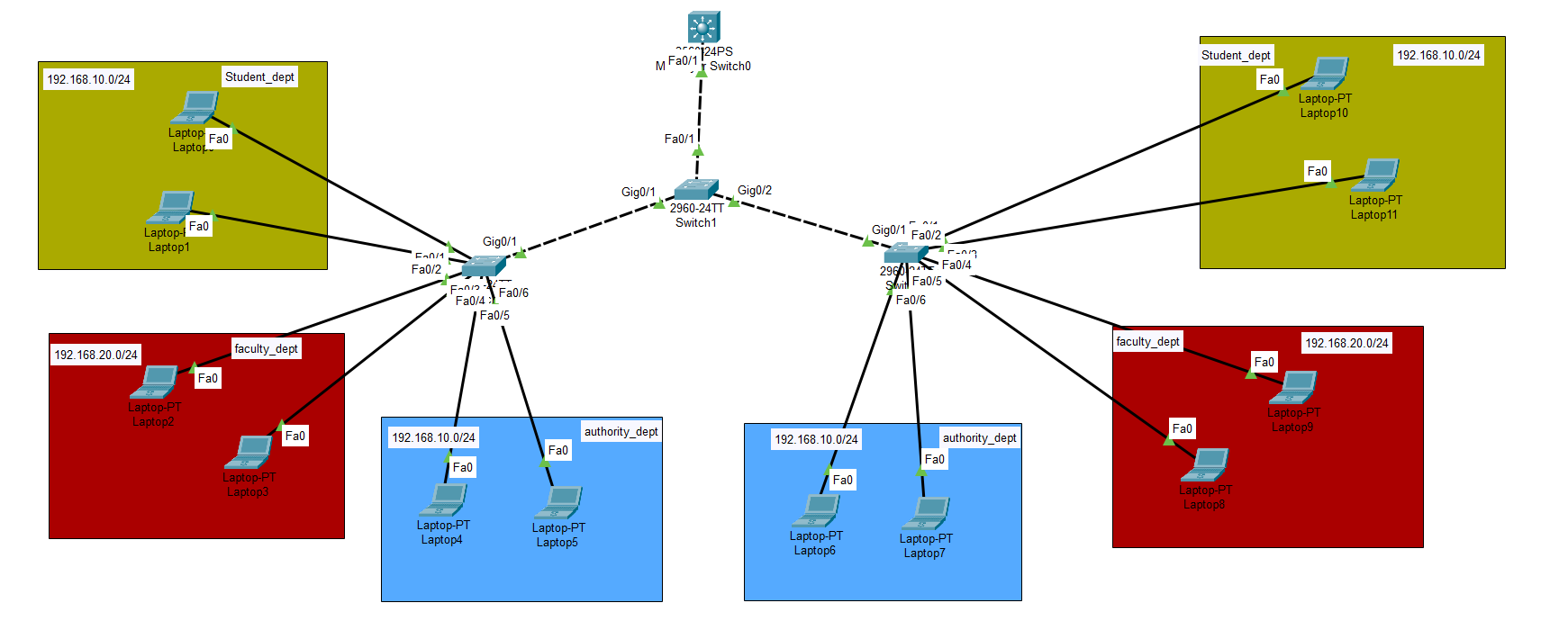
**Example :** In a university network system

* VLAN 10 is for Students
* VLAN 20 is for Faculty
* Vlan 30 is for Authority

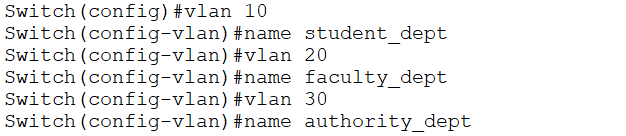
Faculty might need access to Student’s share files, and both might need Authority. Inter-VLAN routing makes this possible while maintain logical separation and security.

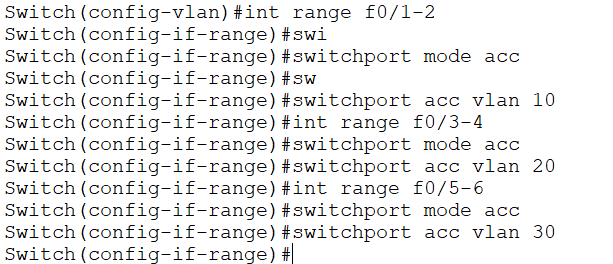
**Required devices:** layer-2 switch, layer-3 switch, Laptop/Personal-Computer

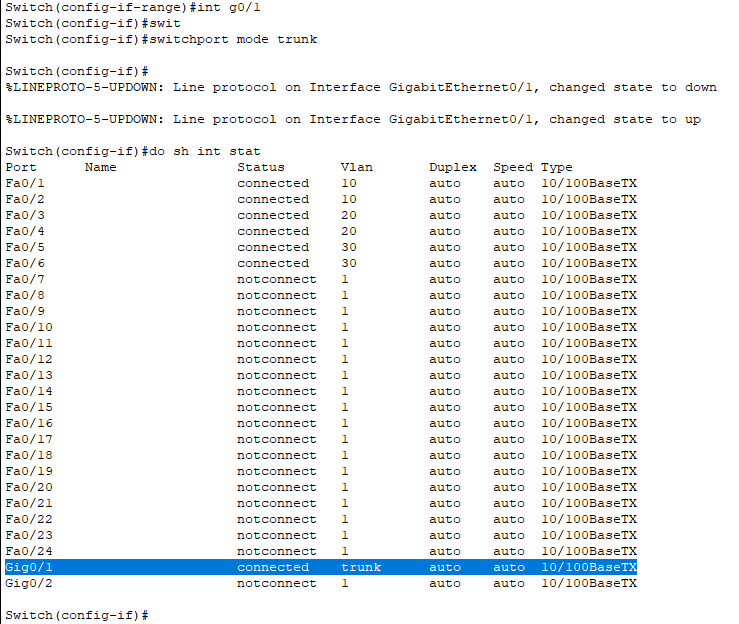
**Network Architecture:**

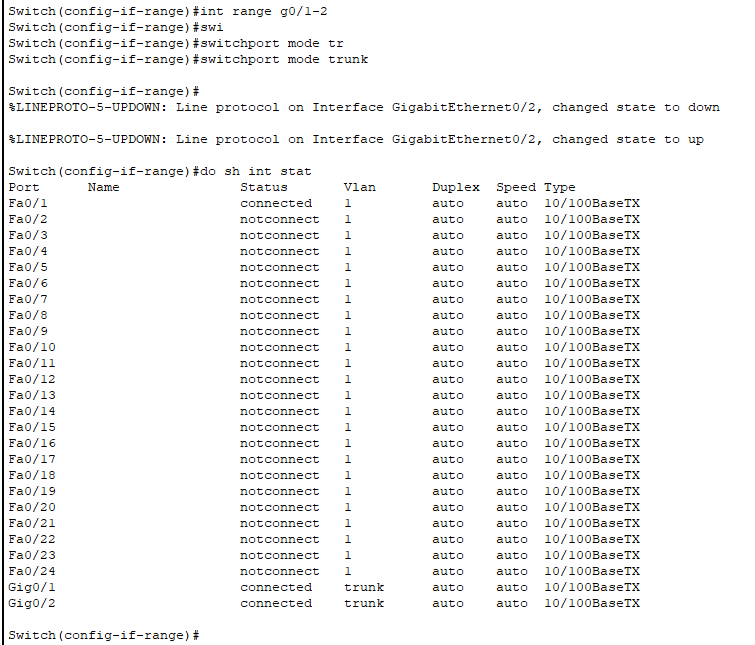
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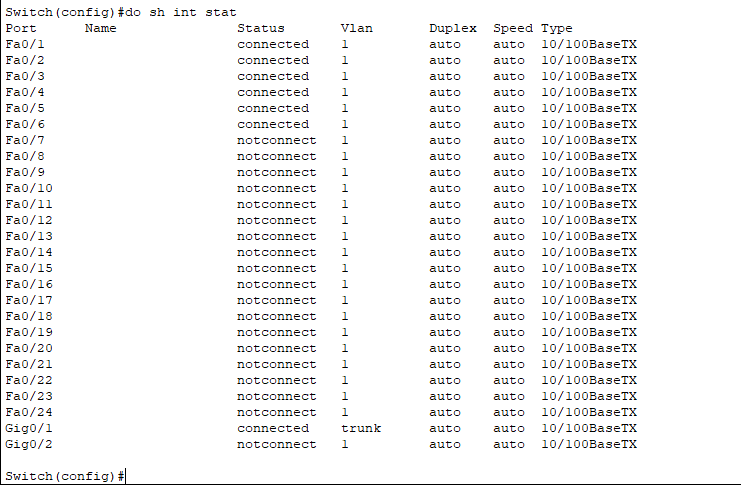
**Create VLAN & VTP :**  Create and configure Vlan and vtp in layer-2 switches.

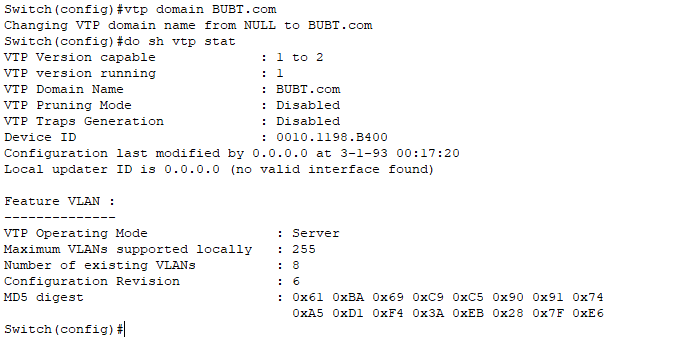


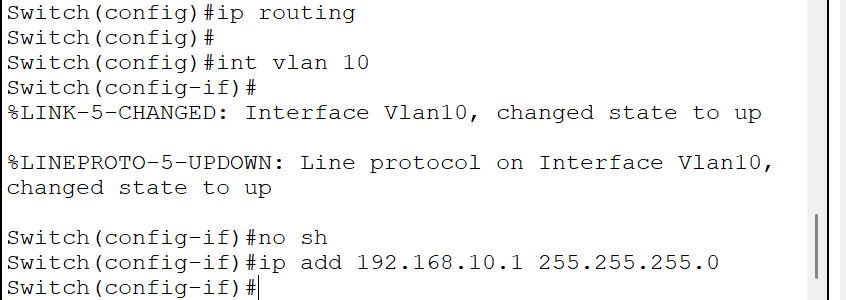






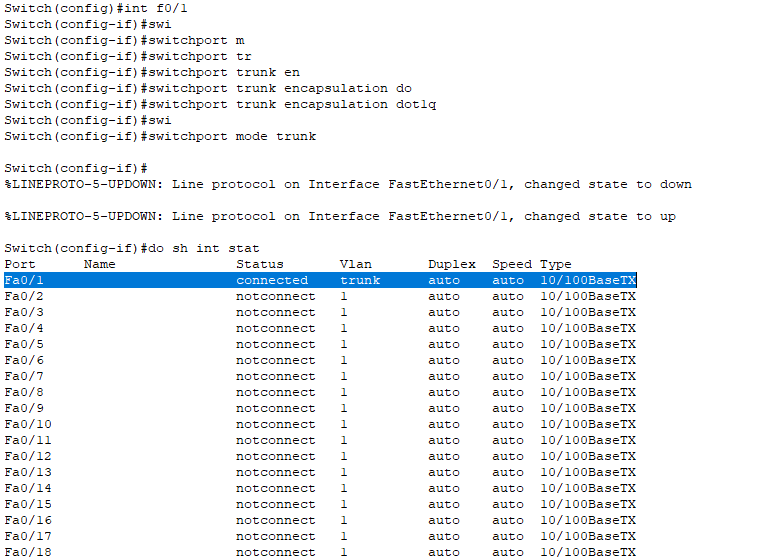


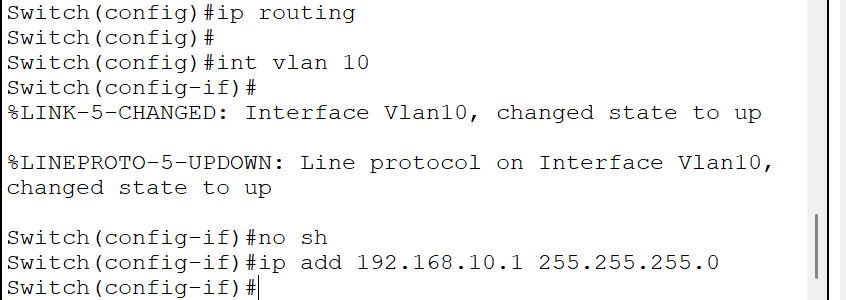


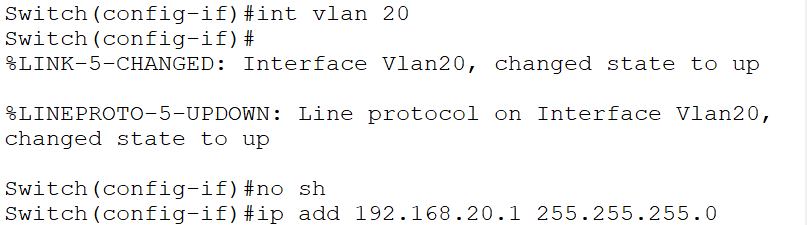


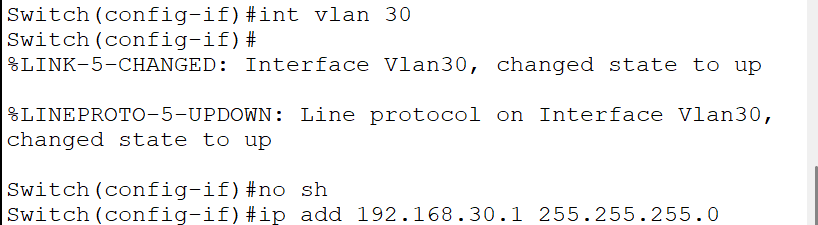
**\*\*\* Assign the port with VLAN in the right layer-2 switch\*\*\***

**Configure Layer-3 switch(Multi-layer Switch):**

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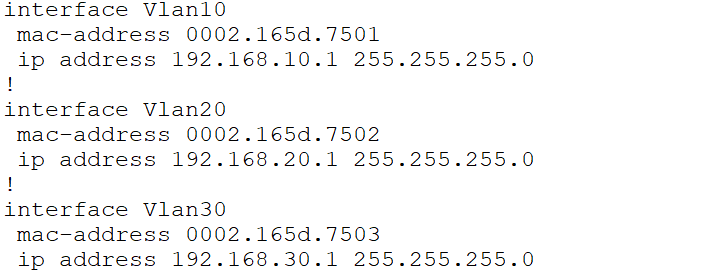




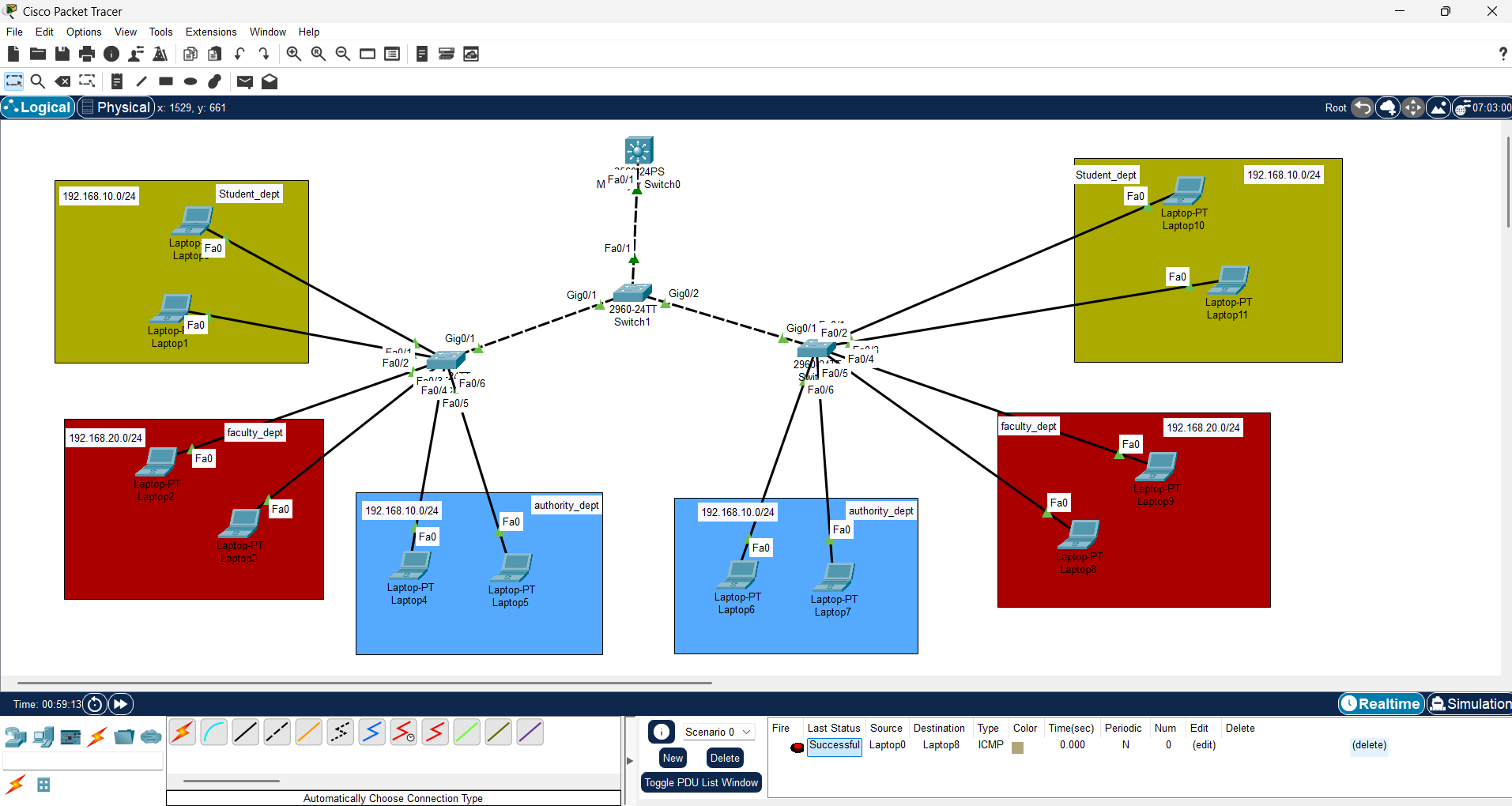


**Show the ip addresses those are configured in the VLAN’s**

**(Show interface status)**



**Final output:**

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