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Lab Practical #05:

Implement the concept of VLAN.

Practical Assignment #05:

1. What is VLAN? Working of VLAN, Advantages of VLAN.

    Virtual Local Area Networks or A VLAN is a switched network that is logically segmented by functions, project teams, or applications without regard to the physical location of users.

❖ **Working :**

➢ Virtual Local Area Networks (VLANs) separate an existing physical network multiple logical networks. Thus, each VLAN creates its own broadcast domain. Communication between two VLANs can only occur through a router that is connected to both. VLANs work as though they are created using independent switches.

➢ A VLAN is created by adding a tag, or header, to each Ethernet frame. This tag tells the network which VLAN the frame should be sent to. Devices in different VLANs can't see each other's traffic unless connected to a router configured to allow it.
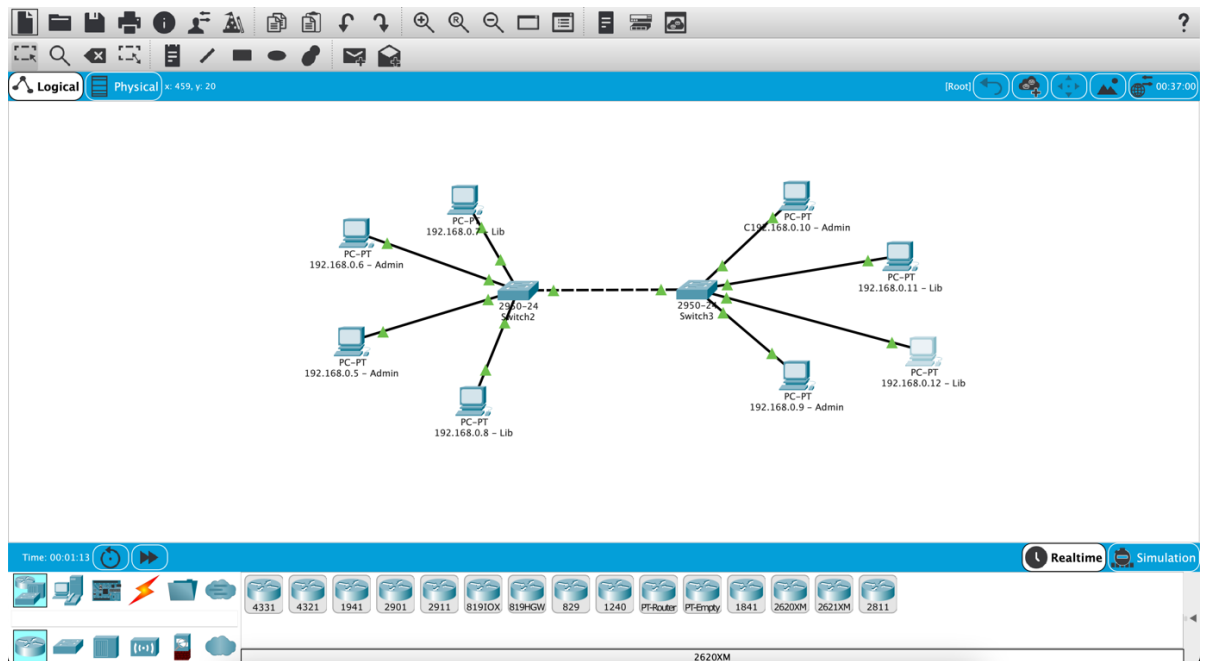
❖ **Advantages :**

➢ It solves a broadcast problem.
➢ You can make a logical grouping of devices by function rather than location.
➢ You can logically segment networks based on departments, project teams, or functions.
➢ VLANs provide increased performance.
➢ Users may work on sensitive information that must not be viewed by other users.
➢ VLAN removes the physical boundary.
➢ It lets you easily segment your network.
➢ It helps you to enhance network security.
➢ You can keep hosts separated by VLAN.
➢ You do not require additional hardware and cabling, which helps you to saves costs.
➢ It has operational advantages because of changing the IP subnet of the user is in software.
➢ It reduces the number of devices for particular network topology.
➢ VLAN makes managing physical devices less complex.

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2. Implement the concept of VLAN.

Example of Admin & Library :

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