**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.

1. Graphical user interface, diagram, application

   Description automatically generatedImplement the concept of VLAN.



