NETWORK DESIGN

LAB ACTIVITY 1

Objectives

- Designing network topology
- Interconnecting devices (hosts, hub, switch, AP)
- Sub-netting IP address according to the need
- Configuring IP address manually
- Configuring IP address dynamically (DHCP)
- Testing end to end connectivity

Designing network topology

1. The use of Hub
   - Use PT to interconnect PCs + Server through hub
   - Use IP address 192.168.0.0/26 for a network of 10 hosts
   - Configure IP address manually
   - Test end to end connectivity

2. The use of switch
   - Replace Hub by switch
   - Test end to end connectivity
   - Use the appropriate command to visualize layer addressing table

Configuring IP address dynamically (DHCP)

- Configure a DHCP server

- Enable DHCP on the PCs

- Test end to end connectivity

Extending a network through Wifi

- Connect AP to the switch
- Configure AP
- Configure end devices to be connected on the Wifi network
- Test end to end connectivity