Project 6: Build enterprise network (Single site)

Week 1: (Build internal network)

- **Tasks:**

  o **Install internal network using cisco Switchs&Router &Devices &server**

- **Deliverables:**
  o Using Cisco packet tracer &Gns3
  o Design Contain (3Routers _2 DSW _ 4 ASW _ 20 PC_1 server)

Week 2: Configuration for Access &Distrubation Switchs

- **Tasks:**
  o **Configuration for Access switches** :manually make a configuration for four Access layer switches
  o **Configuration for Distrubtion switches** :manually make a configuration for two Distrubation switches
- **Deliverables:**

o Basic configuration
  o Hostname
  o Enable secret and VTY password (cisco)
  o Welcome Message
  o Encrypt all password
  o Create VLAN 10 (sales) and VLAN 20 (IT) VLAN 30 (HR) and VLAN 40 (Manger)
  o Assign port to VLAN at access SW
    F0/1-5 >>   VLAN   10
    F0/6-10 >> VLAN 20
    F0/11-15 >>   VLAN   30
    F0/16-20>> VLAN 40
  o Config trunk port
  o Config ether channel using PAgP
  o Config DSW 1 as Root bridge for all vlan 1,10,20 & Config it as Root primary
  o Config DSW 2 as Root bridge for all vlan 30,40 & Config it as Root secendary
  o Config access port as portfast at Access SW
  o Protect Access port from receive unexpected PBDU
  o Config port security at access SW
  o Save Config at NVRAM

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Week 3: Configuration for Routers

- **Tasks:**
    - **Configuration for Routers** :manually make a configuration for 3 Routers

- **Deliverables:**
- Basic configuration
    - Hostname
    - Enable secret and VTY password (cisco)
    - Welcome Message
    - Encrypt all password
    - Config sub interface
    - Ip address for serial port
    - Config DHCP for Sales and IT and HR and Manger network

Week 4: Configuration for redundancy,services &Final presentation

- **Tasks:**
    - **Configuration for Redundancy and Services** : choose whois protocol that you used on redundant topology &and what services that you need.
    - **Final Presentation:** Prepare a report and presentation summarizing the project work, including network that you make, model and Design and configuration.

- **Deliverables:**

    - Config ACL to permit traffic from IT department to the internet and deny Sales department.
    - Config HSRP as Redudant protocol .
    - Track interfaces that connect to ISP.
    - Config all Routers to send alog Message to the Log server.
    - Final report and presentation.