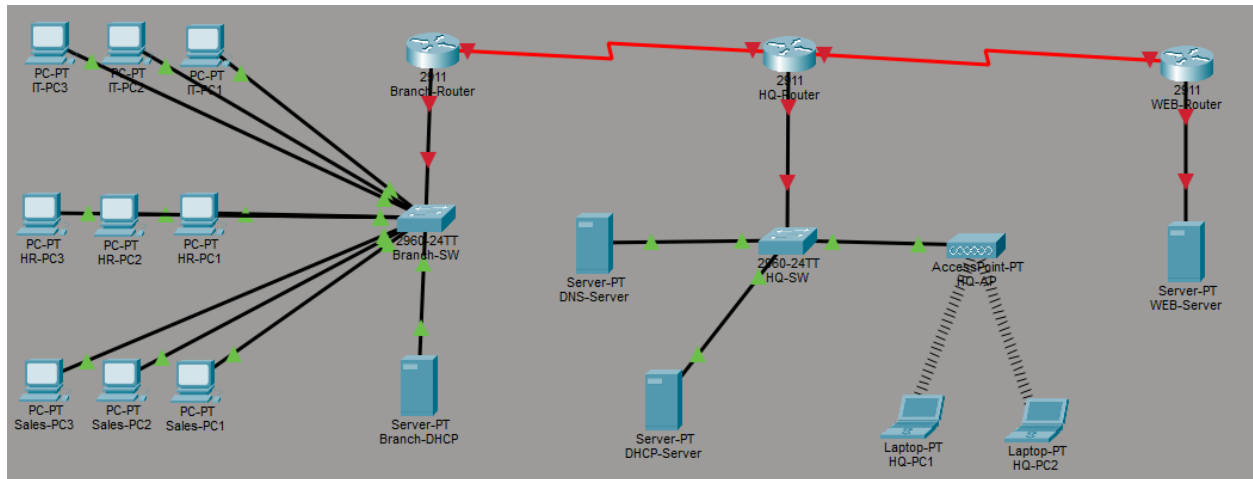


Packet Tracer Practice Lab 02

Create a network diagram according to following instructions.



Part 1: IP Calculation and IP Assignment on Devices.

IP Address	CIDR Notation	Network Address	Broadcast Address	Usable Hosts
192.168.10.0	/25			
192.168.10.128	/26			
192.168.10.192	/27			
192.168.10.224	/27			
172.16.10.0	/30			
192.169.1.0	/24			
192.168.100.0	/24			
10.1.1.0	/30			
10.2.1.0	/30			

Device	IP Address	Subnet Mask	DNS Address	Default Gateway
Branch-DHCP	192.168.10.226			192.168.10.225
DNS-Server				172.16.10.1
DHCP-Server		255.255.255.0		192.169.1.1
WEB-Server	192.168.100.100			192.168.100.5

VLAN ID	Default Gateway
10	192.168.10.1
20	192.168.10.129
30	192.168.10.193

Part 2: Branch-Router Configuration

- a. Set hostname as "Branch-Router"
- b. Prevent ip domain check
- c. Set banner message "Authorized Personal Only"
- d. Create sub-interfaces as necessary.
- e. Assign IP addresses to sub-interfaces
- f. Set HQ-Network Routing interface IP to "10.1.1.2"
- g. Set HQ-Network Routing interface description to "HQ-Link"
- h. Save your configuration to device.

Part 3: Branch-SW Configuration

- a. Set hostname as "Branch-SW"
- b. Prevent ip domain check.
- c. Set banner message "Authorized Personal Only"
- d. Create a VLAN and set ID as 10, name "IT"
- e. Create a VLAN and set ID as 20, name "HR"
- f. Create a VLAN and set ID as 30, name "Sales"
- g. Create a VLAN and set ID as 40, name "DHCP"
- h. Assign relevant ports to relevant VLANs.
- i. Trunk the interface connecting to Branch-Router.
- j. Save your configuration to device.

Part 4: HQ-Router Configuration

- a. Set hostname as "HQ-Router"
- b. Prevent ip domain check
- c. Set banner message "Authorized Personal Only"
- d. Create sub-interfaces as necessary
- e. Assign IP addresses to sub-interfaces.
- f. Set Branch-Network Routing interface IP to "10.1.1.1"
- g. Set Branch-Network Routing interface description to "Branch-Link"
- h. Set Web-Network Routing interface IP to "10.2.1.1"
- i. Set Web-Network Routing interface description to "WEB-Link"
- j. Save your configuration to device.

Part 5: HQ-SW Configuration

- a. Set hostname as "HQ-SW"
- b. Prevent ip domain check
- c. Set banner message "Authorized Personal Only"
- d. Create a VLAN and set ID as 11, name "MGMT"

- e. Assign DNS-Server interface to VLAN 11.
- f. Create a VLAN and set ID as 12, name "Wireless"
- g. Assign Access-point interface and DHCP-Server interface to VLAN 12.
- h. Trunk the interface connected with HQ-Router.
- i. Save your configuration to device.

Part 6: WEB-Router Configuration

- a. Set hostname as "WEB-Router"
- b. Prevent ip domain check.
- c. Set banner message "Authorized Personal Only"
- d. Set HQ-Network Routing interface IP to "10.2.1.2"
- e. Set HQ-Network Routing interface description to "HQ-Link"
- f. Set WEB-Server Routing interface IP to "192.168.100.5"
- g. Save your configuration to device.

Part 6: Routing Configuration

- a. Configure Router-Rip V2 on Branch-Router.
- b. Configure Router-Rip V2 on HQ-Router.
- c. Configure Router-Rip V2 on WEB-Router.
- d. Save configurations to each device.

Part 7: DNS Server Configuration

- a. Enable DNS service.
- b. Create a new *A Record* as "ict.com" pointing to WEB-Server's IP address.

Submission Method:

- 1. PDF file with Completed IP address tables and configuration commands for each intermediate device.
- 2. Configured Packet Tracer file.

Zip all the files and rename it with your registration number.

Send the zip file to inst.tharindu@ict.cmb.ac.lk .

Please add Subject as "PTPL 02 22/23"