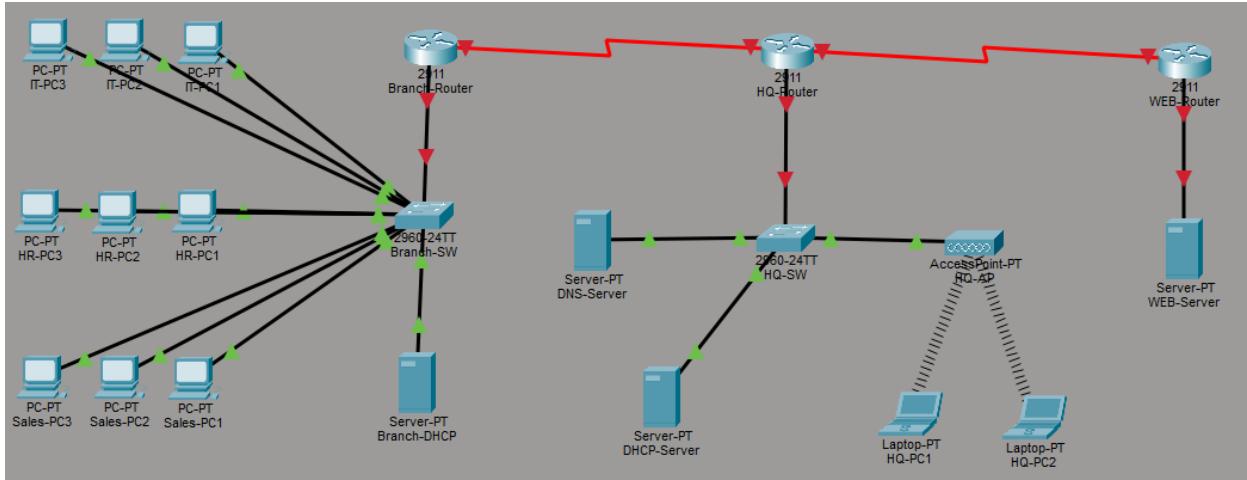


# Packet Tracer Practice Lab 02

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](mailto:inst.tharindu@ict.cmb.ac.lk) .

Please add Subject as “PTPL 02 22/23”