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YR & SECTION	II - CINS	DATE	3/9/2024

LAB ACTIVITY #1 : CONFIGURING STATIC AND DYNAMIC ROUTING RIPV2

I.   DIRECTION: Using CISCO Packet Tracer configure the given logical layout. Provide the configuration for each:

A. Configure the interfaces using the given address table.

B. Build Routing Table for each router using STATIC ROUTING

C. Build Routing Table for each router using DYNAMIC ROUTING RIPV2

II.   LOGICAL LAYOUT
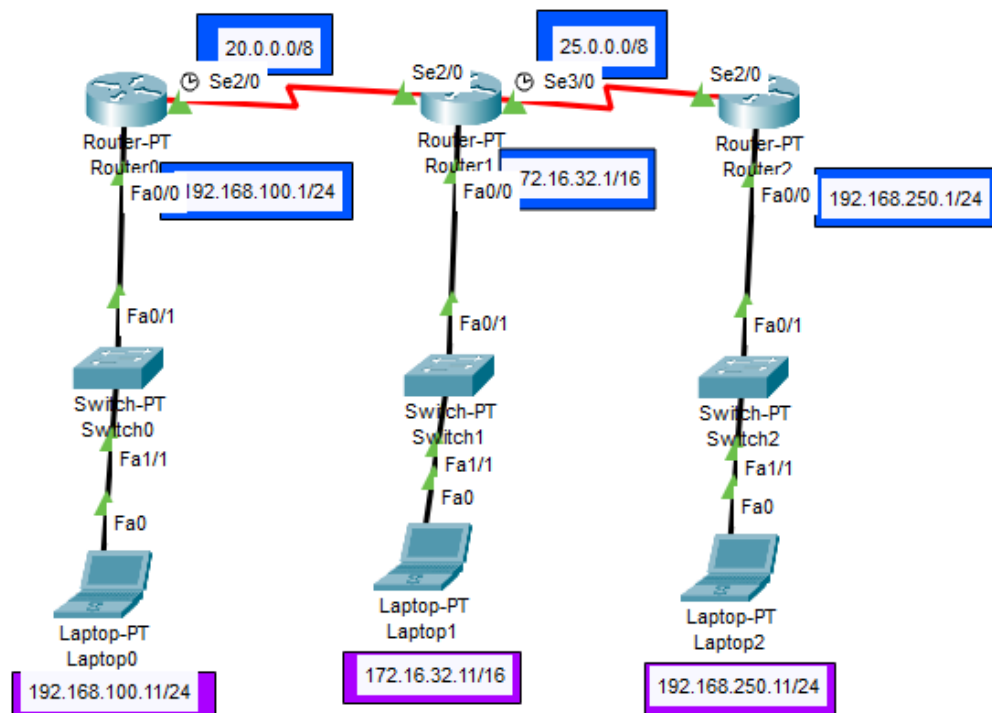
Interface	IP Address	Subnet Mask
Router0		
Fa 0/0	192.168.100.1	255.255.255.0
Serial 2/0	20.0.0.1	255.0.0.0
Router1		
Fa 0/0	172.16.32.1	255.255.0.0
Serial 2/0	20.0.0.2	255.0.0.0
Serial 3/0	25.0.0.1	255.0.0.0
Router2		
Fa 0/0	192.168.250.1	255.255.255.0
Serial 2/0	25.0.0.2	255.0.0.0

IV.   CONFIGURATION

A. Configure the interfaces using the given address table.
- Router0
  - Router>enable
  - Router#configure terminal
  - Router(config)#interface fastEthernet 0/0
  - Router(config-if)#ip address 192.168.100.1 255.255.255.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr
  - Router(config-if)#exit
  - Router(config)#interface serial 2/0
  - Router(config-if)#ip address 20.0.0.1 255.0.0.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr
- Router1
  - Router#configure terminal
  - Router(config)#interface fastEthernet 0/0
  - Router(config-if)#ip address 172.16.32.1 255.255.0.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr
  - Router(config-if)#exit
  - Router(config)#interface serial 2/0
  - Router(config-if)#ip address 20.0.0.2 255.0.0.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr
  - Router(config-if)#exit
  - Router(config)#interface serial 3/0
  - Router(config-if)#ip address 25.0.0.1 255.0.0.0
  - Router(config-if)#no sh
  - Router(config-if)#do wr

- Router2
  - Router>enable
  - Router#configure terminal
  - Router(config)#interface fastEthernet 0/0
  - Router(config-if)#ip address 192.168.250.1 255.255.255.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr
  - Router(config-if)#exit
  - Router(config)#interface serial 2/0
  - Router(config-if)#ip address 25.0.0.2 255.0.0.0
  - Router(config-if)#no shutdown
  - Router(config-if)#do wr

B. Build Routing Table for each router using STATIC ROUTING
- Router0
  - Router(config)#ip route 172.16.0.0 255.255.0.0 20.0.0.2
  - Router(config)#ip route 20.0.0.0 255.0.0.0 20.0.0.2
  - Router(config)#ip route 192.168.250.0 255.255.255.0 20.0.0.2
  - Router(config)#ip route 25.0.0.0 255.0.0.0 20.0.0.2
- Router1
  - Router(config)#ip route 192.168.100.0 255.255.255.0 20.0.0.1
  - Router(config)#ip route 20.0.0.0 255.0.0.0 20.0.0.1
  - Router(config)#ip route 192.168.250.0 255.255.255.0 25.0.0.2
  - Router(config)#ip route 25.0.0.0 255.0.0.0 25.0.0.2
- Router2
  - Router(config)# ip route 192.168.100.0 255.255.255.0 25.0.0.1
  - Router(config)#ip route 20.0.0.0 255.0.0.0 25.0.0.1
  - Router(config)#ip route 25.0.0.0 255.0.0.0 20.0.0.1
  - Router(config)#Ip route 172.16.0.0 255.255.0.0 20.0.0.1

C. Build Routing Table for each router using DYNAMIC ROUTING RIPV2
- Router0
  - Router(config)#router rip
  - Router(config-router)#version 2
  - Router(config-router)#network 20.0.0.0
  - Router(config-router)#network 192.168.100.0
- Router1
  - Router(config)#router rip
  - Router(config-router)#version 2
  - Router(config-router)#network 20.0.0.0
  - Router(config-router)#network 172.16.0.0
  - Router(config-router)#network 25.0.0.0
- Router2
  - Router(config)#router rip
  - Router(config-router)#version 2
  - Router(config-router)#network 25.0.0.0
  - Router(config-router)#network 192.168.250.0

20.0.0.0/8

Laptop-PT
Laptop5

25.0.0.0/8

20.0.0.1/8

20.0.0.2/8

25.0.0.1/8

25.0.0.2/8

Laptop-PT
Laptop3

Router-PT
Router0

Router-PT
Router1

Router-PT
Router2

Laptop-PT
Laptop4

192.168.100.1/24

172.16.32.1/16

192.168.250.1/24

Switch-PT
Switch0

Switch-PT
Switch1

Switch-PT
Switch2

Laptop-PT
Laptop0

Laptop-PT
Laptop1

Laptop-PT
Laptop2

192.168.100.11/24

172.16.32.11/16

192.168.250.11/24