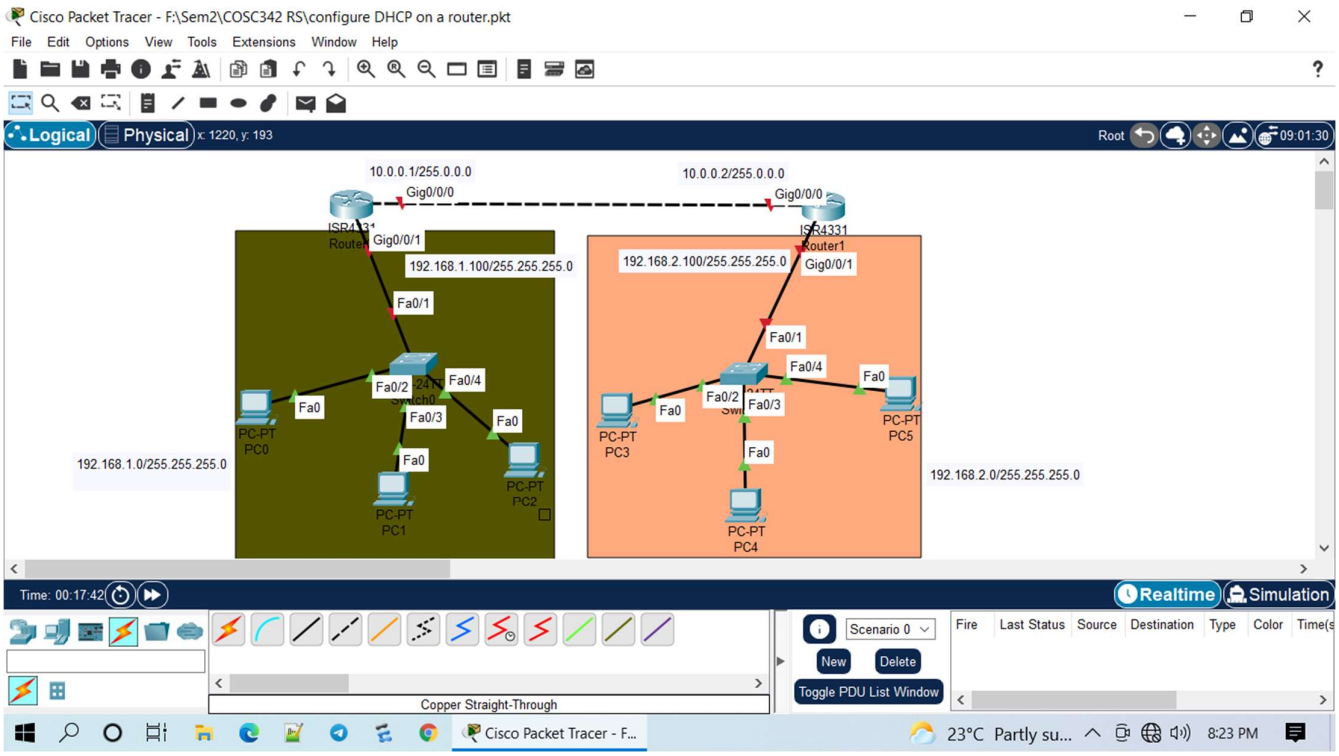
LAB 2: How to Configure DHCP and Static Route on a Router

Prepare the following topology on your workspace.

- For connecting two routers you can use copper straight through cable or copper cross-over cable. Here we shall use copper cross-over cable.
- For connecting switch to a router we use copper straight through cable.



Start by configuring the interface terminals connecting to the routers.

Router0

```
Router>enable
Router#configure terminal
Router(config)#interface gigabitEthernet0/0/1
Router(config-if)#ip address 192.168.1.100 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#
Router(config)#int gigabitEthernet0/0/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#
```

Router1

```
Router>enable
Router#configure terminal
Router(config)#interface gigabitEthernet0/0/1
Router(config-if)#ip address 192.168.2.100 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#
Router(config)#interface gigabitEthernet0/0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#
```

DHCP on Router0

```
baratonone#
baratonone#configure terminal
baratonone(dhcp-config)#network 192.168.1.0 255.255.255.0
baratonone(dhcp-config)#default-router 192.168.1.100
baratonone(dhcp-config)#dns-server 8.8.8.8
baratonone(dhcp-config)#exit
baratonone(config)#
```

DHCP on Router1

```
Router#
Router#configure terminal
Router(config)#ip dhcp pool dhcp2
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.2.100
Router(dhcp-config)#dns-server 8.8.8.8
Router(dhcp-config)#exit
Router(config)#
```

How to configure Static Route

Configuring the static route on the routers will enable the router learn and communicate with each other. The two local area network will be able to communicate with each other. Do the following on configuration mode.

Router0

```
ip route 192.168.2.0 255.255.255.0 10.0.0.2
```

Router1

```
ip route 192.168.1.0 255.255.255.0 10.0.0.1
```

show ip route helps you see the routing table, it show the directly connected networks, those statically configured and those the router learned by itself.