

## Lab Assignment-2

### 1.Using 2 routers:

Steps:

**R0(config)#interface fastethernet 0/0**

**R0(config-if)#ip address 192.168.1.1 255.255.255.0**

**R0(config-if)#no shutdown**

*Configure the Serial 0/0/0 interface with the IP address 192.168.2.1/24.*

**R0(config-if)#interface serial 0/0/0**

**R0(config-if)#ip address 192.168.2.1 255.255.255.0**

**R0(config-if)#clock rate 64000**

**R0(config-if)#no shutdown**

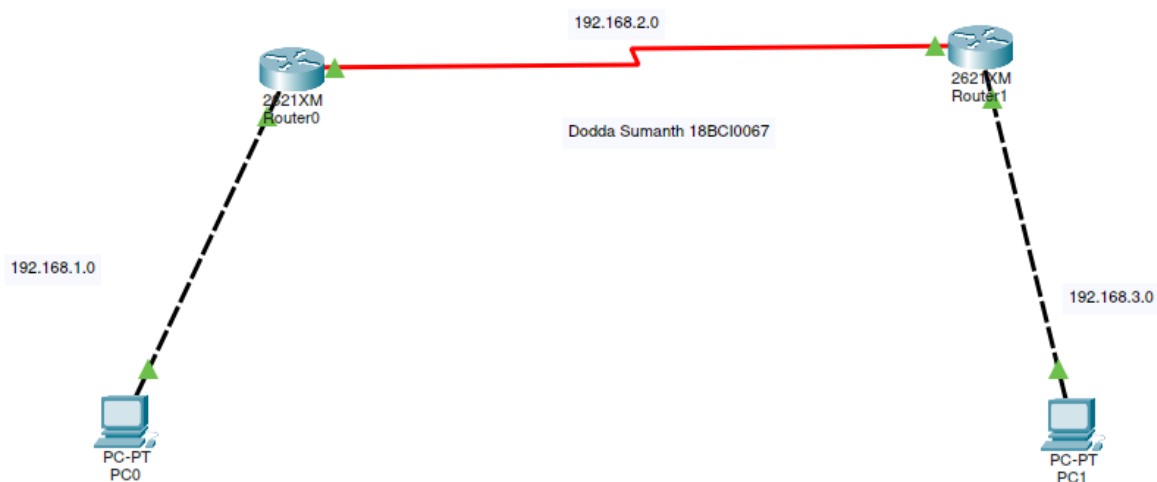
*\*Use the next hop interface on R2 as the path to this network.*

**R0(config)#ip route 192.168.3.0 255.255.255.0 192.168.2.2**

**R0(config)#ip route 0.0.0.0 255.255.255.0 192.168.2.1**

*\*we need to configure router 1 and add routing table accordingly*

*\*The routers has to be connected serial port using HCWIC-2T*



## IP Table:

Interface	Device	IP address	Subnet	Gateway
Router 0	Router 0		255.255.255.0	
Router 1	Router 1		255.255.255.0	
PC 0	PC 0	192.168.1.2	255.255.255.0	192.168.1.1
PC 1	PC 1	192.168.3.2	255.255.255.0	192.168.3.1
Serial 0/0	Serial 0/0	192.168.2.1	255.255.255.0	-
Serial 0/1	Serial 0/1	192.168.2.2	255.255.255.0	-

## Routing table:

Network	Mask	Next Hop
0.0.0.0	255.255.255.0	192.168.2.1
192.168.3.0	255.255.255.0	192.168.2.2

The screenshot displays the Cisco Packet Tracer interface. The main workspace shows a network topology with two routers, Router0 and Router1, connected by a red link labeled '192.168.2.0'. Router0 is connected to PC0 (192.168.1.0) via a dashed link, and Router1 is connected to PC1 (192.168.3.0) via a dashed link. The interface includes a menu bar, a toolbar, and a simulation panel on the right. The simulation panel shows an event list with the following entries:

Time(sec)	Last Device	At Device
0.000	-	PC0
0.001	PC0	Router0
0.002	Router0	Router1
0.003	Router1	PC1
0.004	PC1	Router1
0.005	Router1	Router0
0.006	Router0	PC0

The simulation panel also includes play controls and a list of visible events. The bottom status bar shows the time as 00:02:49.210 and the simulation status as 'Successful'.

## 2.Using 4 Routers

Steps:

**R0(config)#interface fastethernet 0/0**

**R0(config-if)#ip address 192.168.1.1 255.255.255.0**

**R0(config-if)#no shutdown**

*Configure the Serial 0/1/0 interface with the IP address 192.168.2.1/24.*

**R0(config-if)#interface serial 0/1/0**

**R0(config-if)#ip address 192.168.2.1 255.255.255.0**

**R0(config-if)#clock rate 64000**

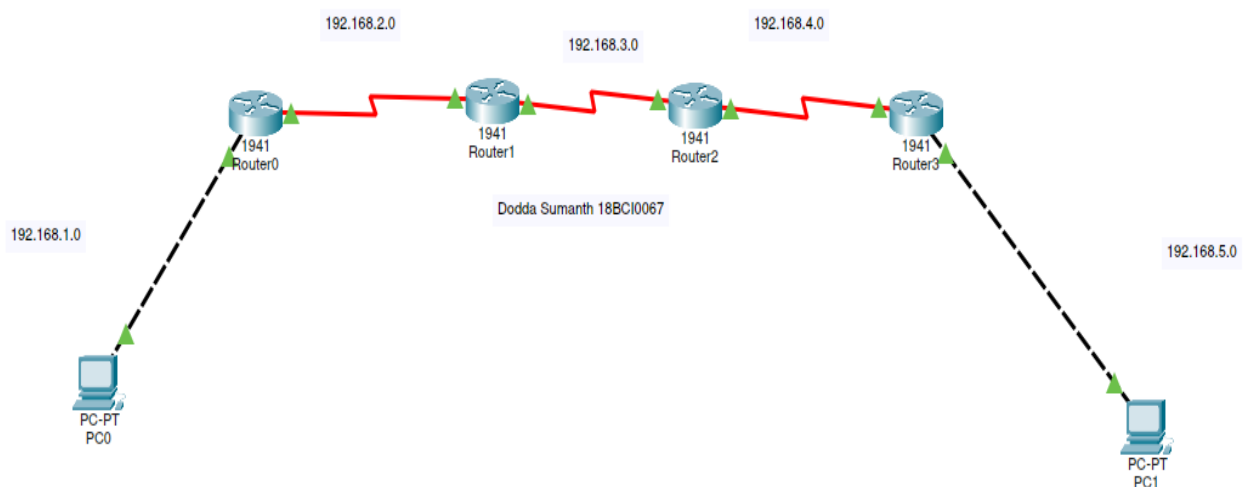
**R0(config-if)#no shutdown**

**R0(config)#ip route 192.168.3.0 255.255.255.0 192.168.2.2**

**R0(config)#ip route 192.168.4.0 255.255.255.0 192.168.2.2**

**R0(config)#ip route 192.168.5.0 255.255.255.0 192.168.2.2**

*\*Configure R1 R2 and R3 and add routing table accordingly.*



## IP Table:

Interface	Device	IP address	Subnet	Gateway
Router 0	Router 0	192.168.1.1	255.255.255.0	-
Router 1	Router 1	192.168.5.1	255.255.255.0	-
PC 0	PC 0	192.168.1.2	255.255.255.0	192.168.1.1
PC 1	PC 1	192.168.5.2	255.255.255.0	192.168.5.1
Serial 0/1/0(R0)	Serial 0/1/0	192.168.2.1	255.255.255.0	-
Serial 0/1/0(R1)	Serial 0/1/0(R1)	192.168.2.2	255.255.255.0	-
Serial 0/1/1(R1)	Serial 0/1/1(R1)	192.168.3.1	255.255.255.0	-
Serial 0/1/0(R2)	Serial 0/1/0(R2)	192.168.4.1	255.255.255.0	-
Serial 0/1/1(R2)	Serial 0/1/1(R2)	192.168.3.2	255.255.255.0	-
Serial 0/1/0(R3)	Serial 0/1/0(R3)	192.168.4.2	255.255.255.0	-

## Routing table(R0):

Network	Mask	Next Hop
192.168.3.0	255.255.255.0	192.168.2.2
192.168.4.0	255.255.255.0	192.168.2.2
192.168.5.0	255.255.255.0	192.168.2.2

## Routing table(R1):

Network	Mask	Next Hop
192.168.1.0	255.255.255.0	192.168.2.1
192.168.3.0	255.255.255.0	192.168.2.2
192.168.4.0	255.255.255.0	192.168.3.2
192.168.5.0	255.255.255.0	192.168.3.2

## Routing table(R2):

Network	Mask	Next Hop
192.168.1.0	255.255.255.0	192.168.3.1
192.168.5.0	255.255.255.0	192.168.4.2

## Routing table(R3):

Network	Mask	Next Hop
0.0.0.0	255.255.255.0	192.168.4.1

Network	Mask	Next Hop
192.168.3.0	255.255.255.0	192.168.2.2

