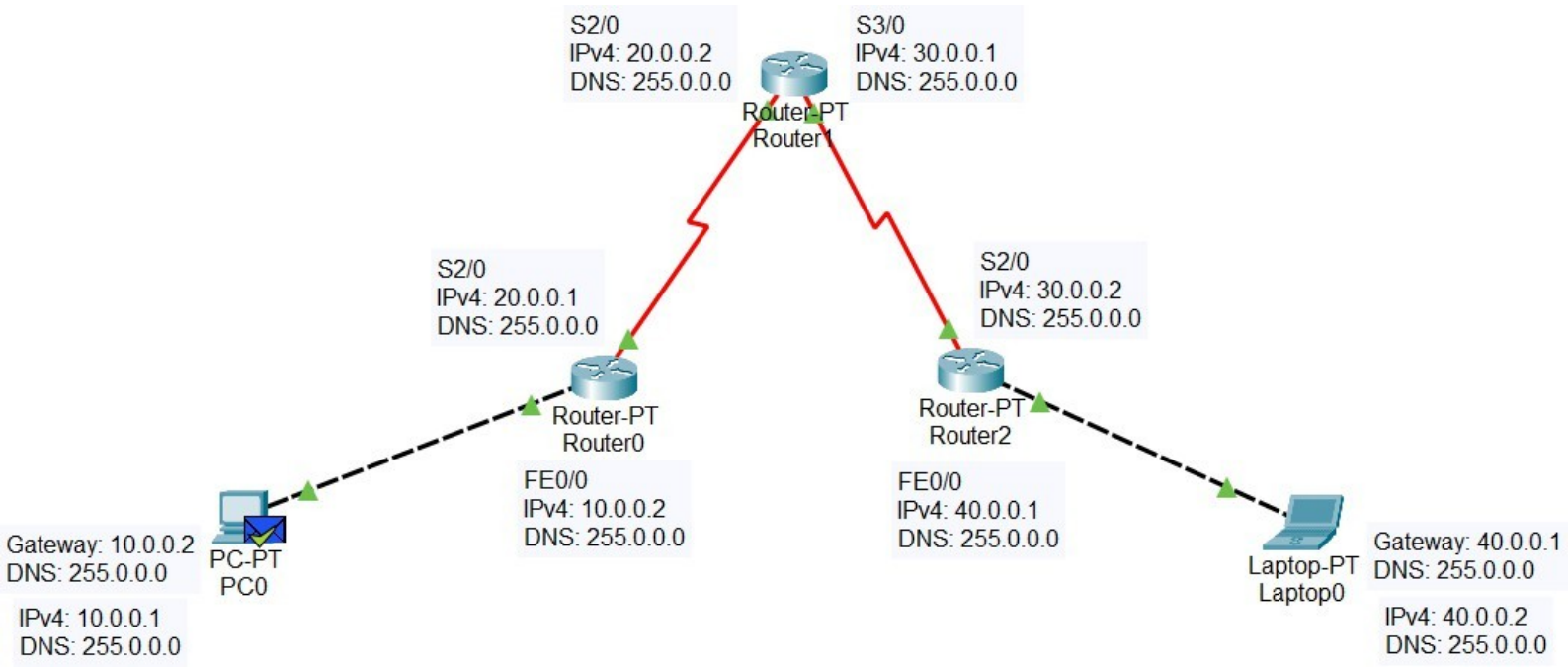

S2/0
IPv4: 20.0.0.2
DNS: 255.0.0.0
S3/0
IPv4: 30.0.0.1
DNS: 255.0.0.0
Router-PT
Router1
S2/0
IPv4: 20.0.0.1
DNS: 255.0.0.0
S2/0
IPv4: 30.0.0.2
DNS: 255.0.0.0
Router-PT
Router0
Router-PT
Router2
FE0/0
IPv4: 10.0.0.2
DNS: 255.0.0.0
FE0/0
IPv4: 40.0.0.1
DNS: 255.0.0.0
Gateway: 10.0.0.2
DNS: 255.0.0.0
PC-PT
PC0
Laptop-PT
Laptop0
Gateway: 40.0.0.1
DNS: 255.0.0.0
IPv4: 10.0.0.1
DNS: 255.0.0.0
IPv4: 40.0.0.2
DNS: 255.0.0.0

```
C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, Serial2/0
S    30.0.0.0/8 [1/0] via 20.0.0.2
S    40.0.0.0/8 [1/0] via 20.0.0.2
```

```
S    10.0.0.0/8 [1/0] via 20.0.0.1
C    20.0.0.0/8 is directly connected, Serial2/0
C    30.0.0.0/8 is directly connected, Serial3/0
S    40.0.0.0/8 [1/0] via 30.0.0.2
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	Laptop0	ICMP		0.000	N	0	(edit)	

```
S    10.0.0.0/8 [1/0] via 30.0.0.1
S    20.0.0.0/8 [1/0] via 30.0.0.1
C    30.0.0.0/8 is directly connected, Serial2/0
C    40.0.0.0/8 is directly connected, FastEthernet0/0
```

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Reply from 40.0.0.2: bytes=32 time=36ms TTL=125
Reply from 40.0.0.2: bytes=32 time=34ms TTL=125
Reply from 40.0.0.2: bytes=32 time=30ms TTL=125
Reply from 40.0.0.2: bytes=32 time=26ms TTL=125

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 26ms, Maximum = 36ms, Average = 31ms
```

Lab-4

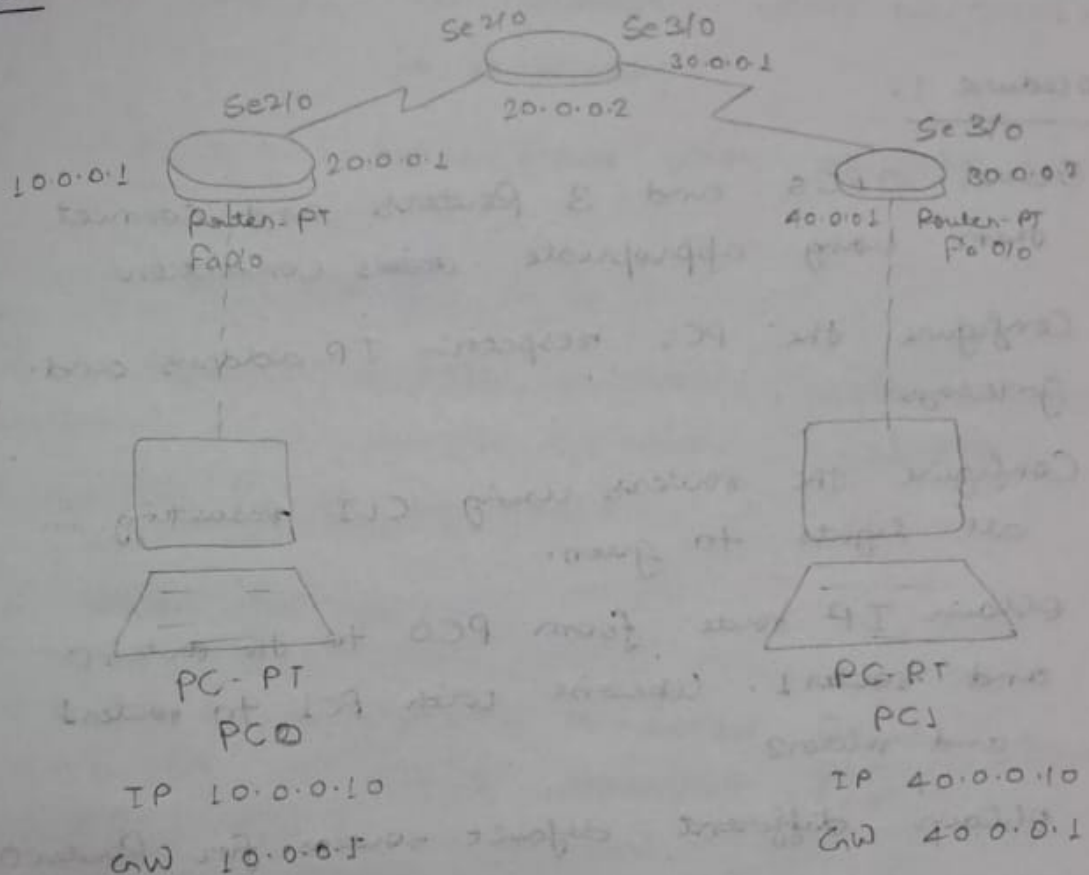
23/10/24

Ques:- Configure default router, static router to the router.

Aim:- Configure 2 PCs with 3 routers to create default router, static router, this enabling us to ping the other PC.

o/p seen ✓

Topology:-



Routers:-

Router 0: IP address: 20.0.0.1
Fa 0/0 with PC0
Se 2/0 with Router1

Router-1: IP address: 20.0.0.2
Se 2/0 with Router1
Se 3/0 with Router-2

Router 2: IP address: 30.0.0.2
Se 3/0 with Router1
Fa 0/0 with PC1

End-Devices :-

PC 0 :- IP address : 10.0.0.10
Gateway : 10.0.0.1
Fa 0/0 with Router 0

PC 1 : IP address : 40.0.0.10
Gateway :- 40.0.0.1
Fa 0/0 with Router 2

Procedure :-

1. Select 2 PCs and 3 Routers and connect them using appropriate ~~wires~~ connection.
2. Configure the PCs respective IP address and gateways.
3. Configure the routers using CLI resulting in all lights to green.
4. Obtain IP route from PC0 to the router 0 and router 1. Likewise with PC1 to router1 and router2.
5. Obtain ~~different~~ default routes for Router 0 and Router 2.
6. Ping PC1 from PC0 and PC0 from PC1.

Observation

- All connections (fast ethernet and serial) have turned green.
- IP route before set up:
  20.0.0.0/8 is directly connected, Serial 2/0
  30.0.0.0/8 is directly connected, Serial 3/0
- IP route after set up:
  S 10.0.0.0/8 [1/0] via 20.0.0.1

C 20.0.0.0/8 is directly connected, Serial 2/0
C 30.0.0.0/8 is directly connected, Serial 3/0
S 40.0.0.0/8 via 30.0.0.2

- Ping from one PC to another is successful.
- So the middle router (Router1) is set-up with 2 next-hops.

- Default Router :- to transfer when no other route is available
- Static Route :- define Route with assigned destination

- IP route ~~after eth0~~ for Router 0

C 10.0.0.0/8 is directly connected, FastEthernet 0/0
C 20.0.0.0/8 is directly connected, Serial 2/0
S* 0.0.0.0/0 [1/0] via 20.0.0.2

IP route for Router2

C 30.0.0.0/8 is directly connected, Serial 3/0
C 40.0.0.0/8 is directly connected, FastEthernet 0/0
S* 0.0.0.0/0 [1/0] via 30.0.0.1

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