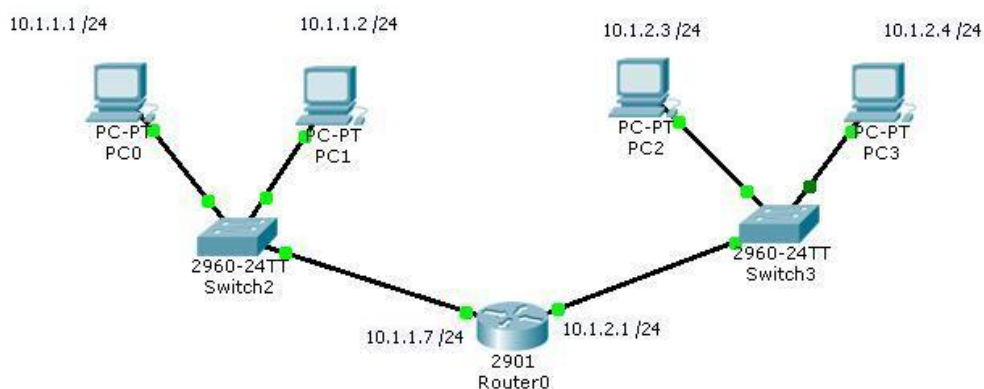# 9. Design Topology and Configure (1 Router, 2 Switches, PCs) — Cisco Packet Tracer.

Aim:

Build a simple topology: Router1 connects to SwitchA and SwitchB; each switch connects to 2 PCs.

Procedure (Packet Tracer steps):

1. Place devices: 1 Router (e.g., 2811), 2 Switches (2960), 4 PCs.
2. Connect: Router G0/0 to SwitchA Fa0/1, Router G0/1 to SwitchB Fa0/1.
3. Assign IP subnets: VLANs on switches if needed. Example: Network A 192.168.1.0/24, Network B 192.168.2.0/24. Assign router subinterfaces or two router interfaces accordingly.
4. Configure PCs with static IPs and test ping across networks (router will route).

Example Router config (CLI):

```
enable
configure terminal
interface GigabitEthernet0/0
 ip address 192.168.1.1 255.255.255.0
 no shutdown
interface GigabitEthernet0/1
 ip address 192.168.2.1 255.255.255.0
 no shutdown
exit
ip route 0.0.0.0 0.0.0.0 <next-hop-if-needed>
```

Sample Output / Tests:

ping 192.168.2.10 from a PC in net1 should succeed.

Use show ip route on router to confirm routes.