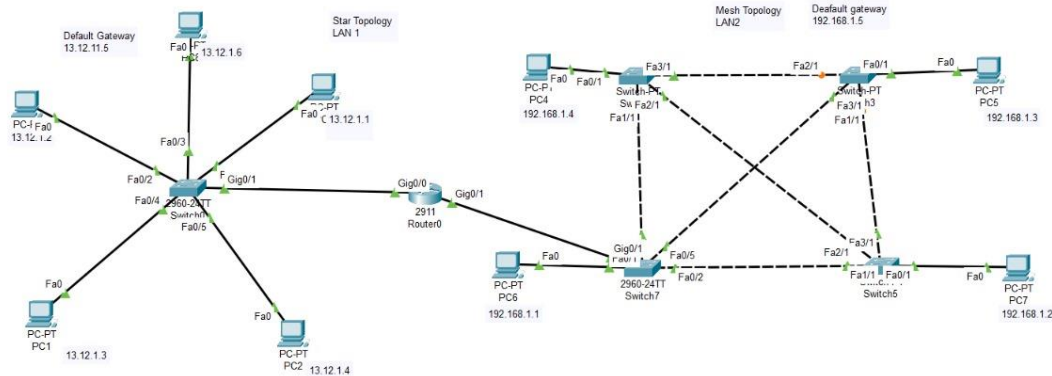# LAB ASSIGNMENT 1

# Assignment Title: Implementation of Topologies in Cisco Student

NAME : SABAVATH GANESH

ROLL NO : 123103003

BRANCH  : IT-A -01

Connection diagram with their IP addressing:



Effective communication between the two LANs while ensuring data transfer:

```
C:\>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time<1ms TTL=127
Reply from 192.168.1.3: bytes=32 time=12ms TTL=127
Reply from 192.168.1.3: bytes=32 time=12ms TTL=127
Reply from 192.168.1.3: bytes=32 time=11ms TTL=127

Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 12ms, Average = 8ms
```

## Switch Table (MAC Address Table) and the Router Table (Routing Table):

### Switch Table (Star topology):

```
Switch>show mac address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

   1    0001.c7ea.5941    DYNAMIC     Fa0/1
   1    000a.413c.be45    DYNAMIC     Fa0/4
   1    000b.be58.7d05    DYNAMIC     Fa0/5
   1    0060.702b.ca01    DYNAMIC     Gig0/1
   1    0090.0cb7.32da    DYNAMIC     Fa0/2
   1    00e0.f705.59bd    DYNAMIC     Fa0/3
Switch>
```

### Switch Table (Mesh topology):

```
Switch>show mac address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

   1    0001.423b.b1e0    DYNAMIC     Fa0/4
   1    0002.1703.2b92    DYNAMIC     Fa0/2
   1    000a.41c3.7787    DYNAMIC     Fa0/4
   1    0060.3e49.7536    DYNAMIC     Fa0/5
   1    0060.5c18.264a    DYNAMIC     Fa0/5
   1    0060.702b.ca02    DYNAMIC     Gig0/1
Switch>
```

### Router Table:

```
Router>show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       13.0.0.0/8 is directly connected, GigabitEthernet0/0
L       13.12.11.5/32 is directly connected, GigabitEthernet0/0
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, GigabitEthernet0/1
L       192.168.1.5/32 is directly connected, GigabitEthernet0/1
```