**Simple Networking Project Using CISCO Packet Tracker**

1. Design a network in Cisco packet tracer to connect ACCOUNTS and DELIVERY departments through the following:
2. Each department should contain at least 2 PCs.
3. Appropriate number of switches and routers should be used in the network.
4. Using the given network address 192.168.40.0, all interfaces should be configured with appropriate IP address, subnet mask and gateways.
5. All devices in the network should be connected using appropriate cables.
6. Test the connectivity between ACCOUNTS and DELIVERY department -PCs in DELIVERY department should be able to ping the PCs in ACCOUNTS department.

Subnetting:

Network = 192.168.40.0 and mask = 255.255.255.0 as it is class C address

No. of Subnets = 2

2^n = no. of subnets

If n = 1, 2^1 = 2 subnets >> means we need one host bit for network bit

1111111.11111111.11111111.10000000

255.255.255.128 🡺 subnet mask

1st Subnet

Mask: 255.255.255.128

Network ID: 192.168.40.0

Range of Valid Host: 192.168.40.1 – 192.168.40.126

Broadcast ID: 192.168.40.127

2nd Subnet

Mask: 255.255.255.128

Network ID: 192.168.40.128

Range of Valid Host: 192.168.40.129 – 192.168.40.254

Broadcast ID: 192.168.40.255