Question – Design a network in Cisco packet tracer to connect ACCOUNTS and DELIVERY department's through the following:

   a. **Each Departments should contain at least 2 PCs.**
   b. **Appropriate number of switches and routers should be used in the network.**
   c. **Using the given network address 192.168.40.0, all interfaces should be configured with appropriate IP address, subnet mask and gateways.**
   d. **All devices in the network should be connected using appropriate cables.**
   e. **Test the connectivity between ACCOUNTS and DELIVERY department -PC in DELIVERY department should be able to ping the PCs in ACCOUNTS department.**

Network Address → 192.168.40

No. of subnets = 2

No. of subnets = 2^n

N = 1

255.255.255.255

11111111.11111111.11111111.10000000

255.255.255.128 → Subnet Mask

1st Subnet

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

Subnet mask = 255.255.255.128

Network ID = 192.168.40.128

Range of Valid Host = 192.168.40.1 – 192.168.40.126

Broadcast ID = 192.168.40.255