

**Exercise 1**

**Lab Task:**

Company XYZ has 100 workstations in their head office and the IT manager would like to assign a subnetwork address for each department. He wants to create 8 subnets using the 192.168.1.0/24 block and assign the first subnetwork to their servers and the rest for their 100 workstations. How will we compute the subnetwork requirement?

**Given:**

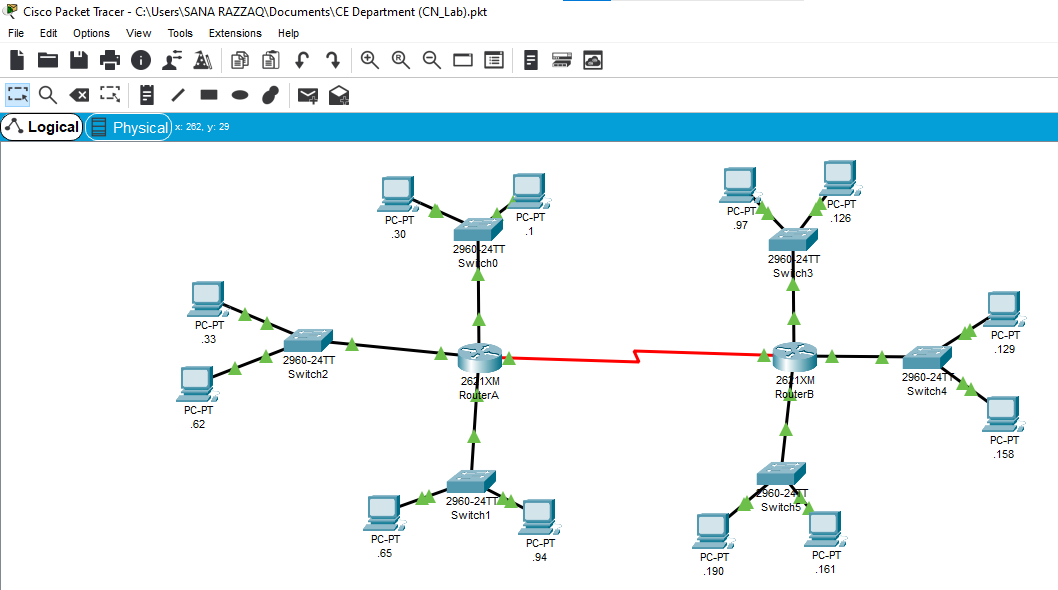
Number of workstations = 100

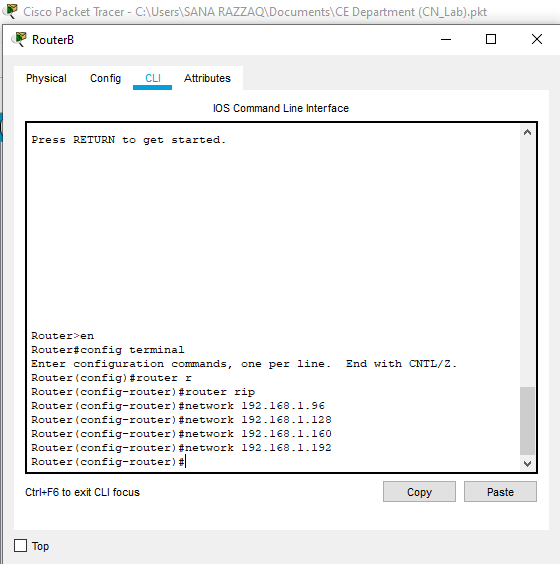
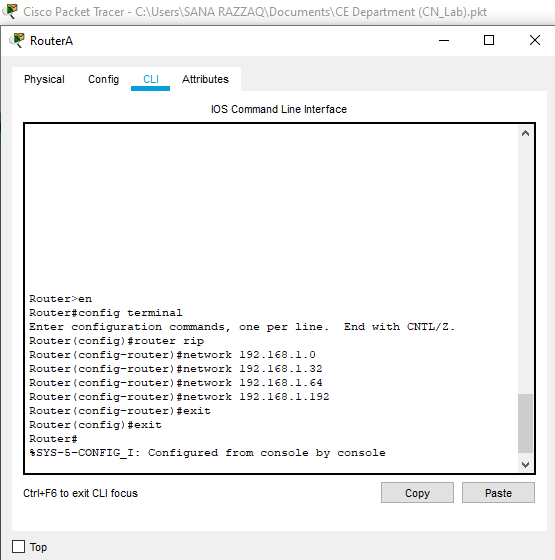
Network address = 192.168.1.0/24

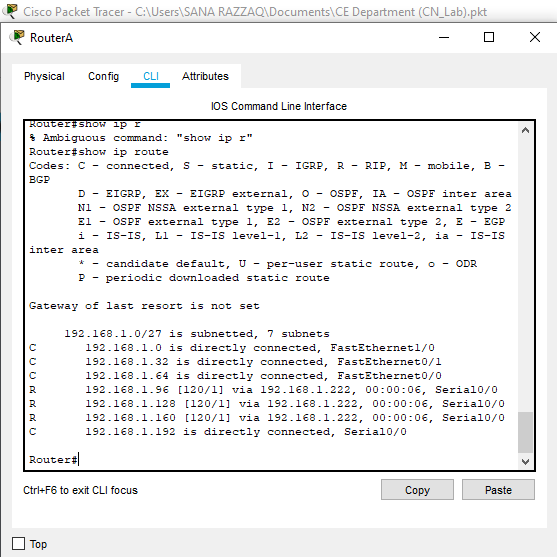
Subnets required = 8

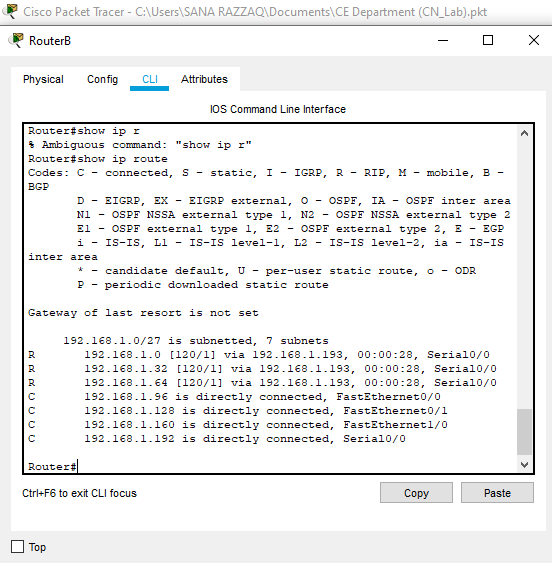
Design the network in Packet tracer and configure all routers using static commands, show packet are moving between all subnets using pings from various attached hosts/workstations.

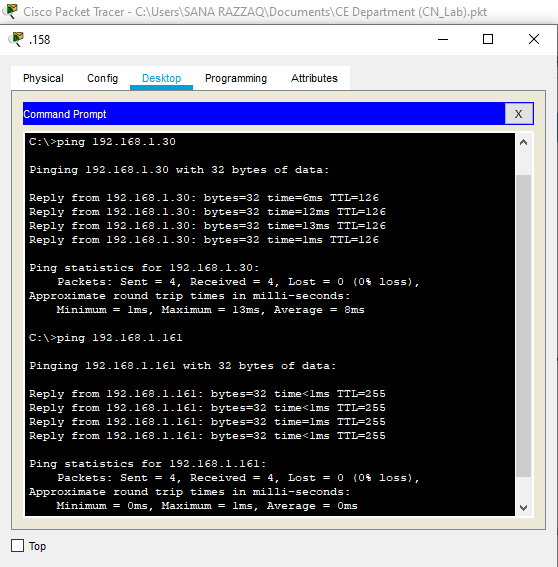
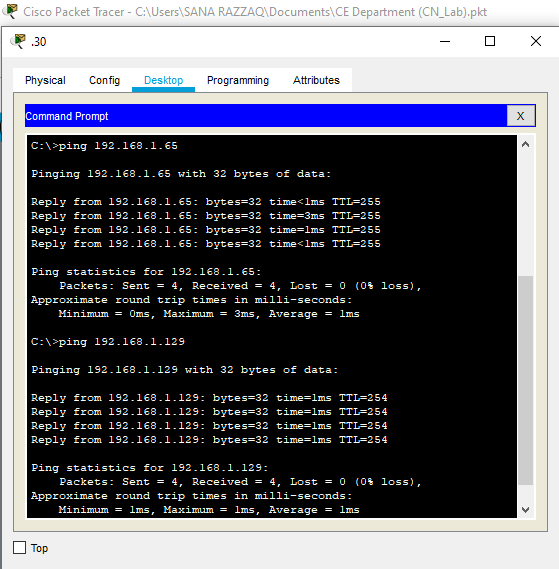
**Solution:**

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