

Computer Networks Lab

Fall 2024

Week 11

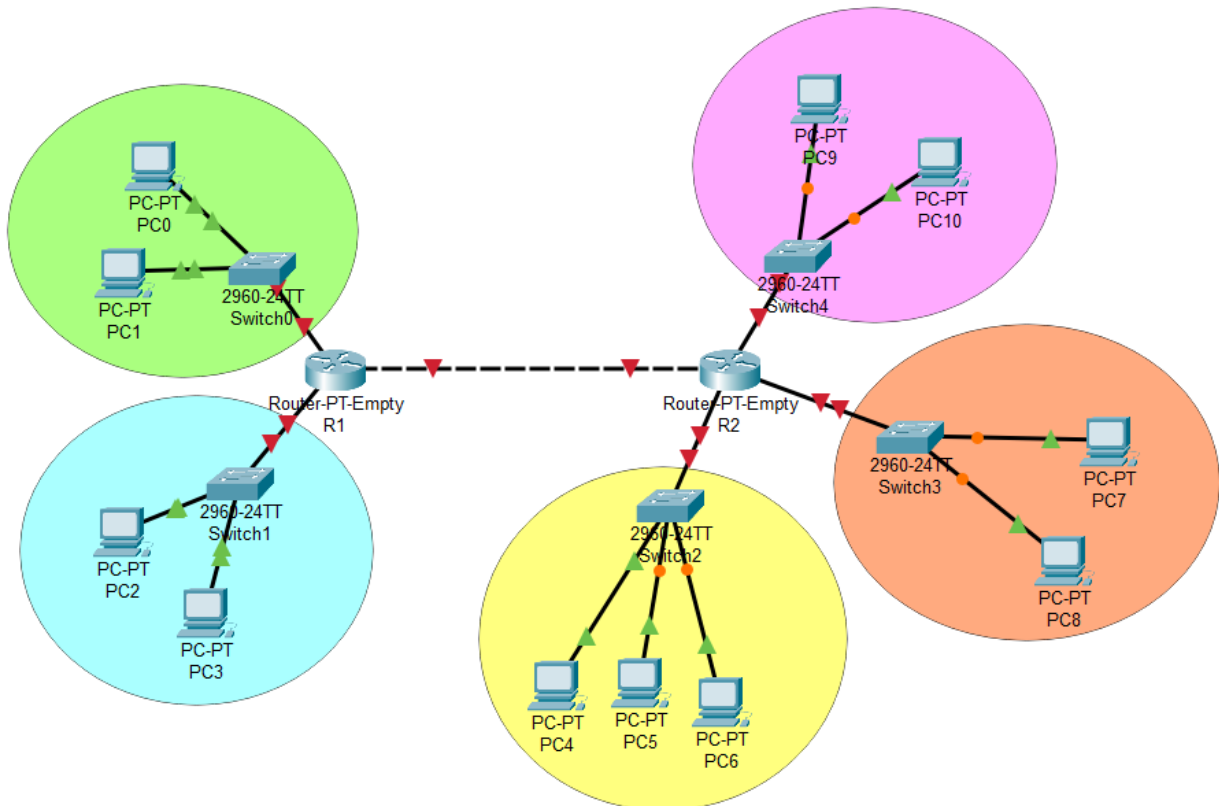
Subnetting and VLSM

Task 1:

Consider network last_two_digits_of_your_rollNumber.0.0.0

Divide the network into 6 subnets. Fill the table and apply it in the topology given below:

Subnet	Network Address	First Usable IP	Last Usable IP	Broadcast Address	Subnet Mask
1	12.0.0.0	12.0.0.1	12.31.255.254	12.31.255.255	255.224.0.0 / 11
2	12.32.0.0	12.32.0.1	12.63.255.254	12.63.255.255	255.224.0.0 / 11
3	12.64.0.0	12.64.0.1	12.95.255.254	12.95.255.255	255.224.0.0 / 11
4	12.96.0.0	12.96.0.1	12.127.255.254	12.127.255.255	255.224.0.0 / 11
5	12.128.0.0	12.128.0.1	12.159.255.254	12.159.255.255	255.224.0.0 / 11
6	12.160.0.0	12.160.0.1	12.191.255.254	12.191.255.255	255.224.0.0 / 11



Task 2:

Consider network last_two_digits_of_your_rollNumber.0.0.0

Divide the network using VLSM. Fill the table and apply it in the topology given below:

Subnet	Network Address	First Usable IP	Last Usable IP	Broadcast Address	Subnet Mask
Orange	12.0.0.0	12.0.0.1	12.0.0.62	12.0.0.64	255.255.255.192/26
Yellow	12.0.0.64	12.0.0.65	12.0.0.94	12.0.0.95	255.255.255.224/27
Blue	12.0.0.96	12.0.0.97	12.0.0.126	12.0.0.127	255.255.255.224/27
Green	12.0.0.128	12.0.0.129	12.0.0.142	12.0.0.143	255.255.255.240/28
Pink	12.0.0.144	12.0.0.145	12.0.0.150	12.0.0.151	255.255.255.248/29
R1-R2	12.0.0.152	12.0.0.153	12.0.0.154	12.0.0.155	255.255.255.252/30
	12.0.0.156				

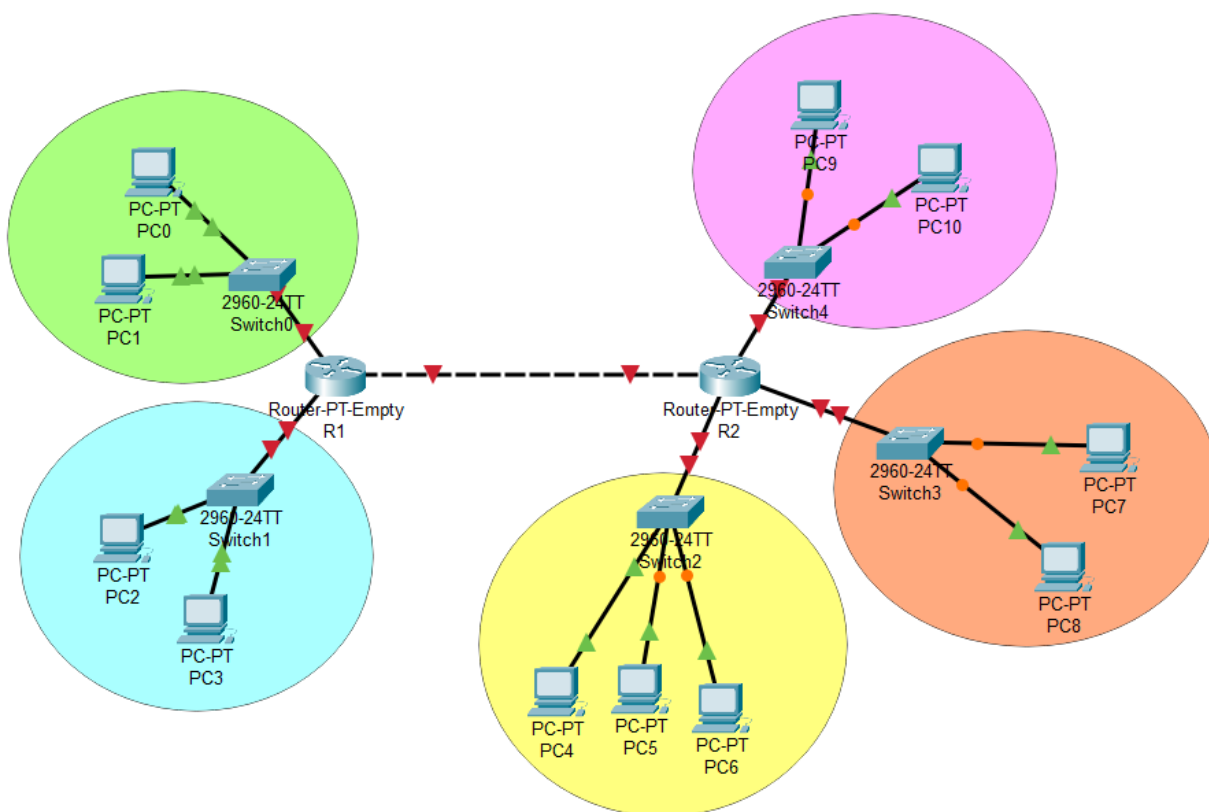
Area Green: 10 hosts

Area Blue: 20 hosts

Area Yellow: 30 hosts

Area Orange: 50 hosts

Area Pink: 5 hosts



Weekly Question:

What are your strengths and how did you use them in this class?

My strength in the class is active participation

I talk a lot too

And I go home early