

COMPUTER NETWORKS PROJECT

Submission Deadline: **25th December 2021**

Instructions:

Don't copy, don't cheat. The evaluation criteria is very strict, do everything by yourself else you will be in big trouble.

The Assignment statements are self-Explanatory. We will not responsible for any problem you are facing. Just Google it and correct it.

1. Don't cheat, your efforts will be valued but cheater will be marked 0.
2. Everything is self-explained, solve it yourself.

“Our greatest weakness lies in giving up. The most certain way to succeed always to try just one more time.”

You are given the network design with minimal technical documentation; your task is to make this up. Use all your mind capabilities to solve and submit this as soon as you can and live rest of your semester relaxed.

1. Following are the steps you need to perform in the network according to the given layout. Configure this scenario and find your given IP address in the file " IP address " attached with this. Find out the Network Addresses and start working with them. And Use them as you want.
2. Please find the Number of required host per subnet in the given file and **DO VLSM accordingly**. Each group is given different number of required host per subnet. Networks are labeled Alphabetically in the given file of IP ADDRESSES.
3. Use EIGRP in First Block for Routing , OSPF with area 1 in Second Block , Rip in Block Third and OSPF with area 0 in last block as mention on top of the block.

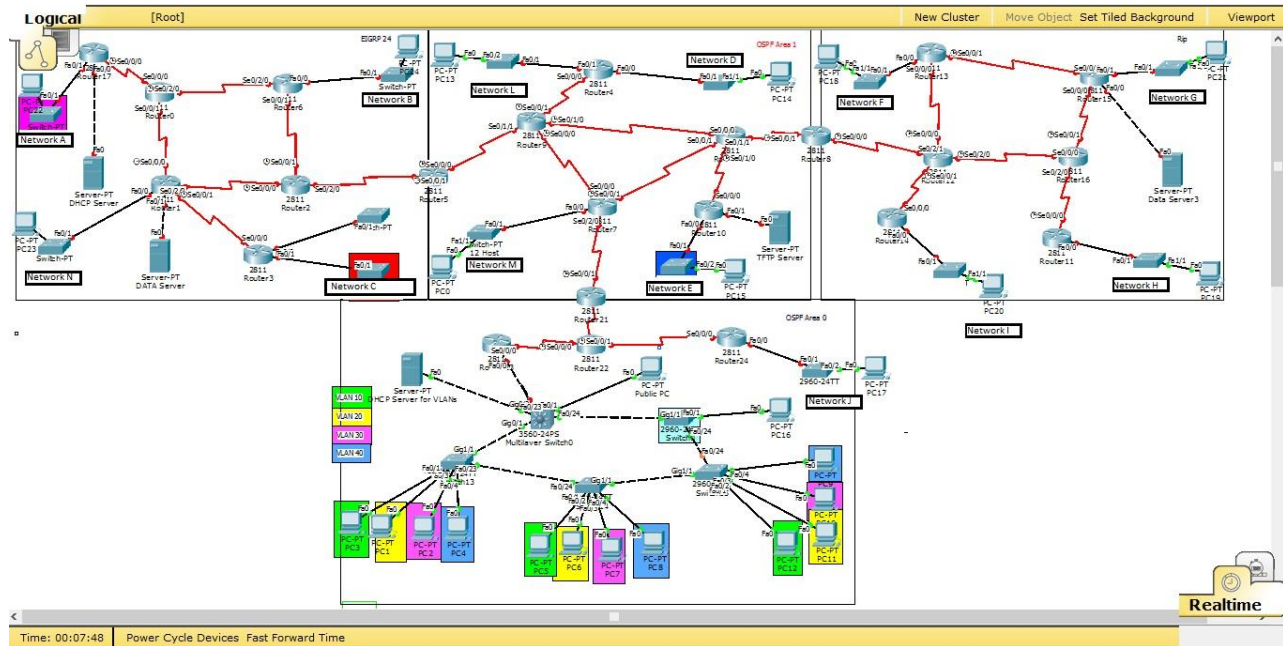
4. Use Redistribution on Router5 and Router8 for connecting EIGRP with OSPF and OSPF with RIP.
5. All host in EIGRP, OSPF area 1 and RIP will get IP address from "DHCP Server" and Host in OSPF area 0 will get IP address From " DHCP Server For VLAN's ".
6. **You have to use VLSM in each of the 4 Blocks in that topology. ONE Network address for each Block.**
7. **You have to IMPLEMENT NAT in router with the Network G.** Use Private IP Address given to you in the attached file for NATing.
8. Create VLAN's as mention in scenario.
9. Use VTP and make 3560 switch a server other will be client and switch with light blue shade shouldn't copy any VLAN. 3560 switch is Multi-Level Switch which can act as a switch as well as router.
10. VLAN's host's must communicate with each Host in Same VLAN. Use Inter-VLAN communication between VLAN 20 and VLAN 40 Only.
11. Configure " DHCP Server for VLAN's " for IP assignment to host in VLAN.
12. PC 0 will not access TFTP server, PC 13 will not access Data server, all host connected with purple shaded switch will not access "Data Sever 3" and Host with Pink shaded switch will not communicate with Host of "VLAN 40".

Must to Read:

You need to model your project with physical workspace of packet tracer simulator. Nicely modelled topology is required to make it self explanatory. Your project's physical workspace must depict your network topology embedded in a real world environment. Use some nice background images, cities, buildings, offices and all other mandatory elements to make its physical view more eye-catching. A well designed physical view will lead to award bonus points so go and put your maximum efforts to get some extra points.

➤ IP ADDRESS AND RELATIVE INFORMATION IS GIVEN IN THE EXCEL SHEET FOR EACH INDIVIDUAL GROUP.

Network topology to be built:



“If you're going through hell, keep going.” Winston Churchill

“The will to win, the desire to succeed, the urge to reach your full potential ... These are the keys that will unlock the door to personal excellence.”

GOOD LUCK 😊