COMPUTER NETWORKS PROJECT

Instructions:

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

The statements are self-Explanatory.

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1. Use Packet Tracer Instructor Version to simulate this network.
2. Don't cheat, your efforts will be valued but the cheater will be marked 0.
3. Everything is self-explained, solve it yourself.

NOTE: You are given the network design with minimal technical documentation; your task is to make this up and run in Cisco Packet tracer.

The following are the steps you need to perform in the topology according to the given layout.

- ✓ Configure the scenario given and find your given IP address in the file "IP addresses" attached with this. Every one of you is assigned with its unique IP address. Find out the Network Addresses and start working with them. And use them as required.
- ✓ Please find the number of required hosts per subnet in the same attached file. Each student is given a different number of required hosts per subnet. Networks are labeled alphabetically in the given file of IP ADDRESSES.
- ✓ Use the appropriate routing method as mentioned on the top of each block.
- ✓ Use Redistribution on Routers that connect two different blocks with each other.
- ✓ All hosts **in EIGRP, OSPF area 1 & 2, and RIP** will get IP addresses from the "**DHCP Server**" present in Block D.
- ✓ You must use **VLSM** in each network of the topology. Remember that between two routers you need a total of 4 IP addresses. And information about host requirements of all other networks is provided in the attached file as mentioned above.
- ✓ You must **IMPLEMENT NAT** in Router21 (with the Network K) & Router10 (with the Network F). Use the PUBLIC IP Address given to you in the attached file for Nating.
- ✓ One of the PCs of Network A will not be allowed to access the web server. One of the Laptop of Network E & Smart Phone of Network B will not be allowed to access the Web server. All hosts connected to network D will not be allowed to access **"Web Server". (Use ACLs on the router connected to the Web Server to enforce these restrictions.)**
- ✓ There is a **"Mail server"** in block D. All the hosts of Network H and Network I will have email configured and can send email to each other.
- ✓ Only the hosts in Network G can access "**FTP server**" and upload a file (You have to explore this configuration by your own)

IP addresses link:

https://docs.google.com/spreadsheets/d/1qZuvNHAAcmmazqXqSIMbUx6kSWBnu2Ai5WOzgPrDSps/edit?usp=sharing

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Submission Deadline: 9th May 2025, 11:59 PM