

CS-354-Data Communication & Computer Networks

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Section:

B

Final Project



EXPLANATION:

Enable: This command switches the router from user mode to privileged mode, allowing you to execute advanced commands.

Configure Terminal:This command enters global configuration mode, where you can make changes to the router's configuration.

interface gigabitEthernet 0/0.10:This command selects a range of interfaces from GigabitEthernet 0/0 to GigabitEthernet 0.10.

encapsulation dot1Q 10: This command enables 802.1Q VLAN tagging on their interface(s) and assigns them to VLAN 10.This is typically used on trunk ports to allow tagged VLAN traffic.

Interface fastEthernet 0/0:This command selects the FastEthernet 0/0 interface for configuration.The 0/0 refers to the first FastEthernet interface on the router (slot 0, port 0).

No Shutdown:Always remember to use the no shutdown command to activate the interface. By default, interfaces are administratively shut down and need to be activated using no shutdown.

Ip address 172.58.0.1 255.255.0.0:This command is typically used in the context of configuring a network interface, usually on a router or switch, to set its IP address and subnet mask.

hostname MASS COM LAB:Sets the switch's hostname to MASS COM LAB to help identify it in the network.

Hostname Main switch:Sets the switch's hostname to Main switch to help identify it in the network.

Hostname General-Lab-Switch:Sets the switch's hostname to General lab switch to help identify it in the network.

Hostname FYP- LAB:Sets the switch's hostname to FYP LAB to help identify it in the network.

Hostname Faculty-Office 1:Sets the switch's hostname to faculty office 1 to help identify it in the network.

Hostname Faculty-Office 2:Sets the switch's hostname to faculty office 2 to help identify it in the network.

Hostname Faculty-Office 3:Sets the switch's hostname to faculty office 3 to help identify it in the network.

Hostname CS- LAB:Sets the switch's hostname to CS- LAB to help identify it in the network.

Hostname C- LAB 2:Sets the switch's hostname to C- LAB 2 to help identify it in the network.

Hostname C- LAB 3:Sets the switch's hostname to C- LAB 3 to help identify it in the network.

Hostname C- LAB 4:Sets the switch's hostname to C- LAB 4 to help identify it in the network.

Hostname C- LAB 5:Sets the switch's hostname to C- LAB 5 to help identify it in the network.

Hostname C- LAB 6:Sets the switch's hostname to C- LAB 6 to help identify it in the network.

Hostname C- LAB 8:Sets the switch's hostname to C- LAB 8 to help identify it in the network.

Hostname C- LAB 9:Sets the switch's hostname to C- LAB 9 to help identify it in the network.

vlan 30:Creates VLAN 30 on the switch if it doesn't already exist.

Name IT:Assigns the name IT to VLAN 30 for easier identification.

Switchport mode access: Configures the interface as an access port, meaning it will carry traffic for only one VLAN.

Switchport access vlan 30:Assigns the port to VLAN 30. Any device connected to this port will be in VLAN 30 and can only communicate with devices in the same VLAN unless inter-VLAN routing is configured.

Vlan 20:Creates VLAN 20 on the switch if it doesn't already exist.

Vlan 10:Creates VLAN 10 on the switch if it doesn't already exist.

Switch port mode trunk:The port will carry traffic for multiple VLANs using 802.1Q tagging.It is typically used to connect switches to other switches or routers for inter-VLAN communication.

Exit:Exits the interface configuration mode and returns to global configuration mode.

Ping: The ping command is used to test connectivity between the device you're working on (e.g., a router, switch, or computer) and another device with the IP address

FTP Server connection:This command is used in the command line (Windows or Linux) to initiate an FTP session with the **server at IP 172.58.0.1**.

This command is used on a Cisco router or switch to **enable** an FTP server on the device

These commands configure the **username and password** for accessing an FTP server from a Cisco device

This URL format is used in web browsers or FTP **clients to access the FTP server.**