COMPUTER NETWORKS LAB

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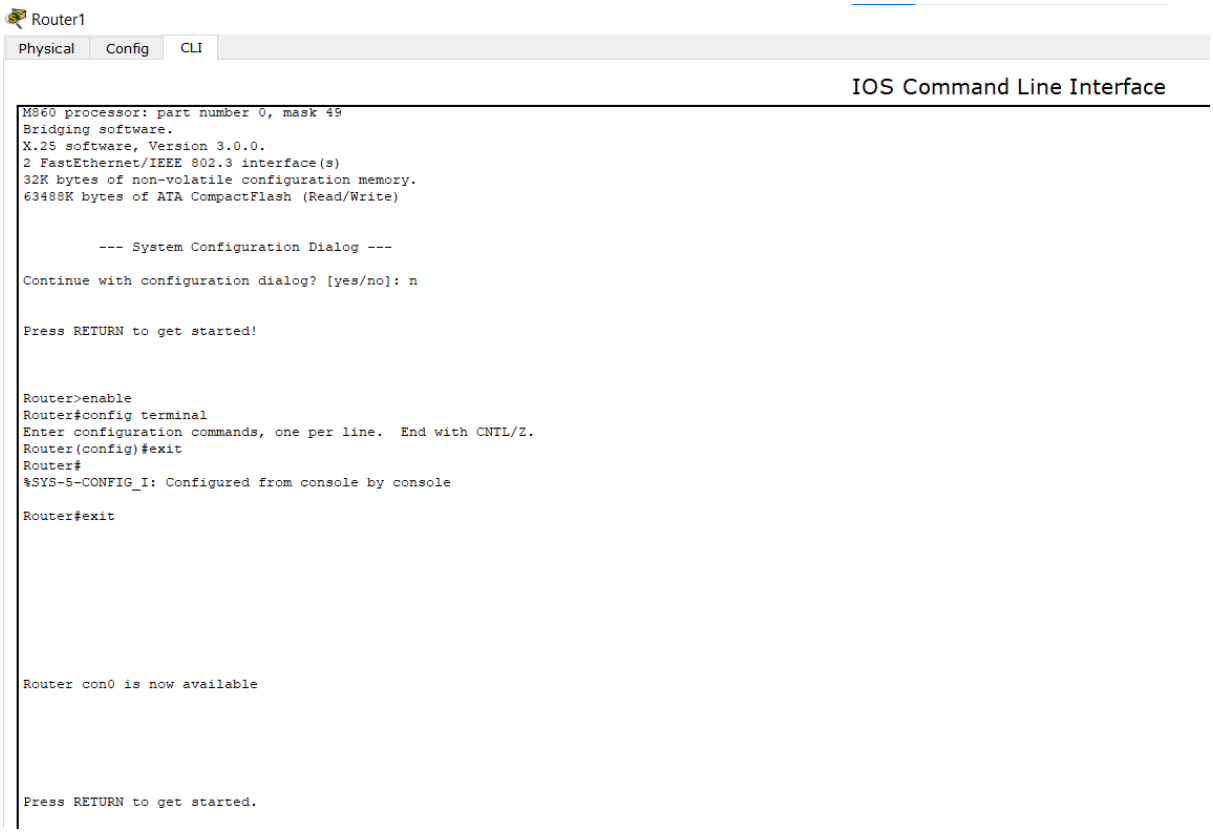
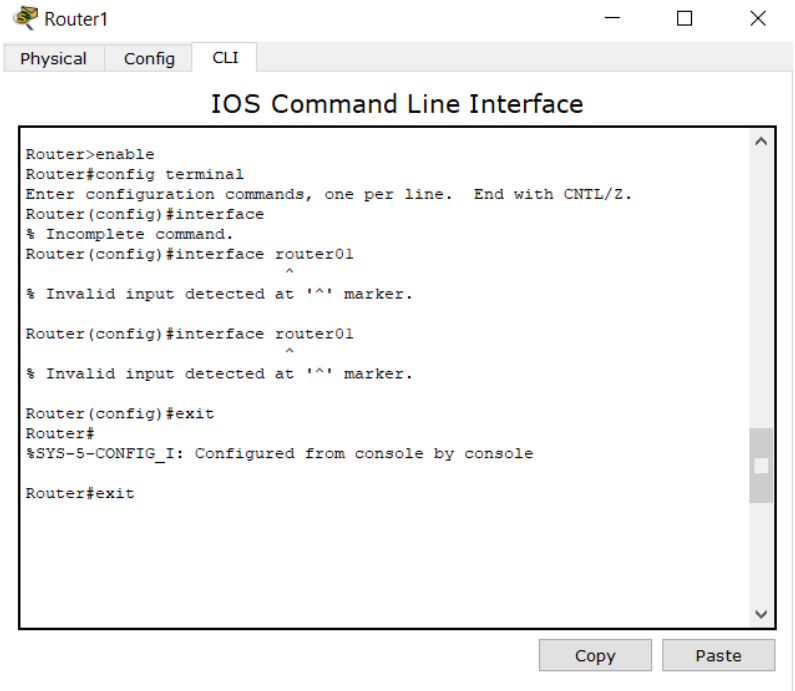
SECTION: BS(CS)-5B
LAB NO: 3 (HOMEWORK)

Setting Router Modes on 2600 Series Routers



Changing Hostname of the Router



Configuring Date and Time on the Router (Clock Set Command)

```
zaz>enable
zaz#clock set 9:55:00 3 October 2021
zaz#show clock
*9:55:6.855 UTC Sun Oct 3 2021
zaz#
```

Copy Paste

Setting a banner on the Router

```
zaz#
zaz#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
zaz(config)#banner motd #Welcome to your network#
zaz(config)#exit
zaz#
%SYS-5-CONFIG_I: Configured from console by console

zaz#exit



zaz con0 is now available



Press RETURN to get started.



Welcome to your network

zaz>
```

Displaying the Router's Running-Configuration and Start-Up Configuration

Running-Configuration:

```
zaz#
zaz#show running-config
Building configuration...

Current configuration : 519 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname zaz
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
ip classless
!
ip flow-export version 9
!
!
!
banner motd ^CWelcome to your network^C
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

zaz#
```

Start-Up Configuration:

```
zaz#show startup-config
startup-config is not present
zaz#
```

Enable Password and Enable Secret Password with the Encryption Techniques/Levels

Enable Password:

Setting up:

```
zaz>enable
zaz#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
zaz(config)#enable password zaz123
zaz(config)#exit
zaz#
%SYS-5-CONFIG_I: Configured from console by console

zaz#exit
```

Verifying:

```
Welcome to your network

User Access Verification

Password:

zaz>enable
Password:
zaz#
```

Enable Secret Password:

Setting up:

```
Welcome to your network

User Access Verification

Password:

zaz>enable
zaz#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
zaz(config)#enable?
enable
zaz(config)#enable secret zaz123
zaz(config)#exit
zaz#
%SYS-5-CONFIG_I: Configured from console by console
```

Verifying:

```
Welcome to your network

User Access Verification

Password:

zaz>enable
Password:
zaz#
```

Line Console Password Implementation on CISCO 2600 Series Router

```
zaz#
zaz#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
zaz(config)#line console 0
zaz(config-line)#password zaz123
zaz(config-line)#login
zaz(config-line)#end
zaz#
%SYS-5-CONFIG_I: Configured from console by console

zaz#exit









zaz con0 is now available




Press RETURN to get started.









Welcome to your network

User Access Verification

Password:

zaz>
```

What is Telnet?

Telnet is a network protocol used to virtually access a computer and to provide a two-way, collaborative and text-based communication channel between two machines. It follows a user command Transmission Control Protocol/Internet Protocol (TCP/IP) networking protocol for creating remote sessions. It is a text-based program that lets you access the console on a router or other device and issue commands.

How to Telnet?

You can Telnet into a router using the Telnet client included with Windows. Unlike other protocols, Telnet isn't secure and shouldn't be used over the Internet. For example, typing telnet hostname would connect a user to a hostname named hostname. Telnet enables a user

to manage an account or device remotely. For example, a user may telnet into a computer that hosts their website to manage his or her files remotely.

Line VTY:

The term “vty” stands for Virtual teletype. VTY is a virtual port and used to get Telnet or SSH access to the device. VTY is solely used for inbound connections to the device. virtual terminal lines are used to allow remote access to the router. The router has variable virtual terminal lines depending upon the model of router. The abstract “0 – 4” means that the device can allow 5 simultaneous virtual connections which may be Telnet or SSH.

Telnet Password:

```
zaz#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
zaz(config)#line vty 0 4
zaz(config-line)#password zaz123
zaz(config-line)#login
zaz(config-line)#exit
zaz(config)#exit
zaz#
%SYS-5-CONFIG_I: Configured from console by console

zaz#
```

Usage of Router with different topology.

Using Star topolgy

Assigning IP to router through cli:

```
zaz(config)#
zaz(config)#interface FastEthernet0/0
zaz(config-if)#ip address 192.168.1.1 255.255.255.0
zaz(config-if)#no shut

zaz(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

zaz(config-if)#interface FastEthernet0/1
zaz(config-if)#ip address 192.168.2.1 255.255.255.0
zaz(config-if)#no shut

zaz(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

zaz(config-if)#
```

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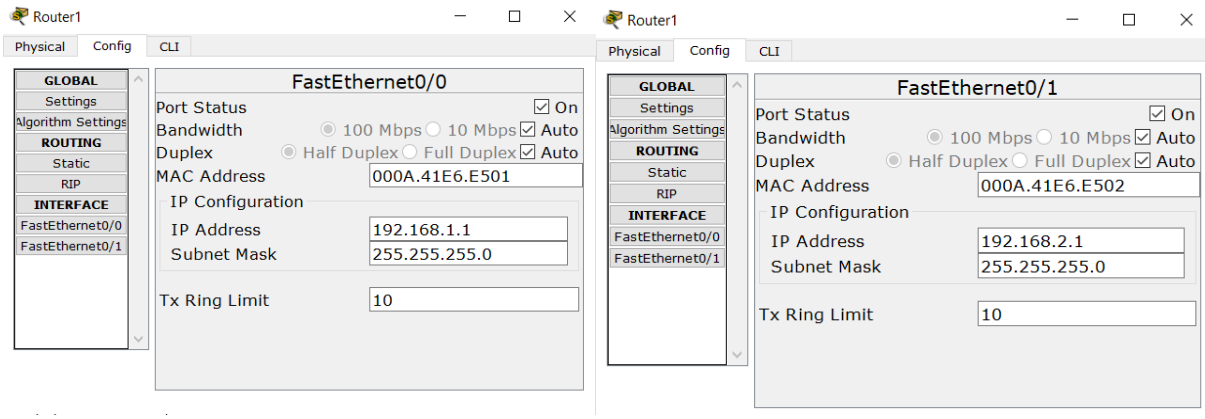
You can see below that IPs has been assigned.




```
zaz#
%SYS-5-CONFIG_I: Configured from console by console

zaz#show ip interface brief
Interface                  IP-Address      OK? Method Status
Protocol

FastEthernet0/0            192.168.1.1     YES manual up
up

FastEthernet0/1            192.168.2.1     YES manual up
up
zaz#
```

As you can see it’s saying successful. (cisco file attached)