BERMAS, LESTER LANCE J. COMPUTER NETWORK 2 – LABORATORY DECEMBER 11, 2022

BSIT-NS-3AB PROF. VICENTE ESTEMBER

ACTIVITY 7.

SWITCH/ROUTER BOOT UP PROCESS AND CONFIGURATION REGISTER SETTINGS

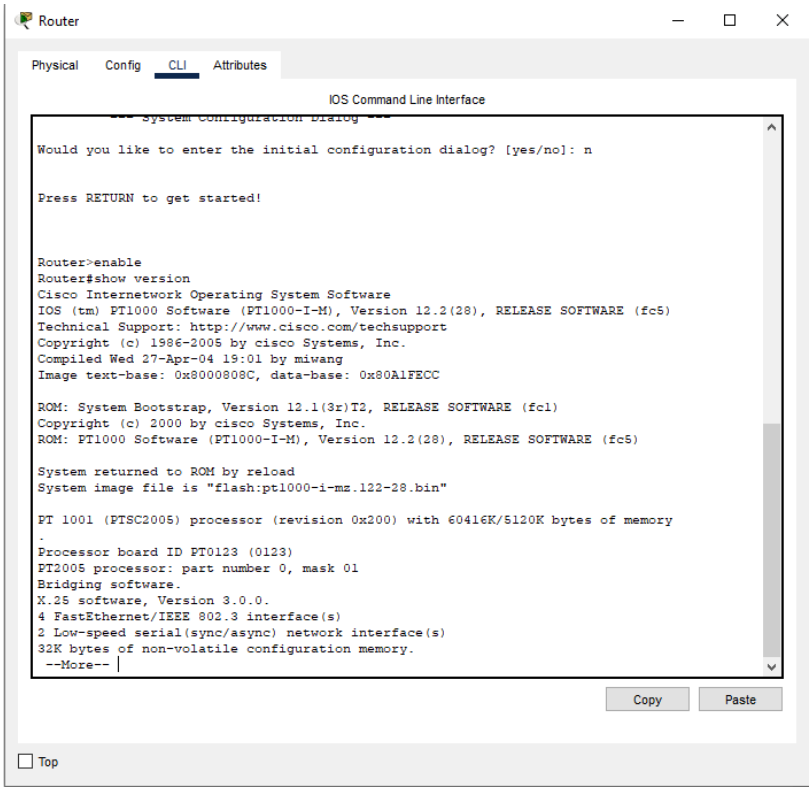
OBJECTIVES:

1. To understand the boot up processes of switch and router
2. To understand the settings of configuration register
3. To configure the settings of configuration register
4. To troubleshoot the switch and router startup with password settings

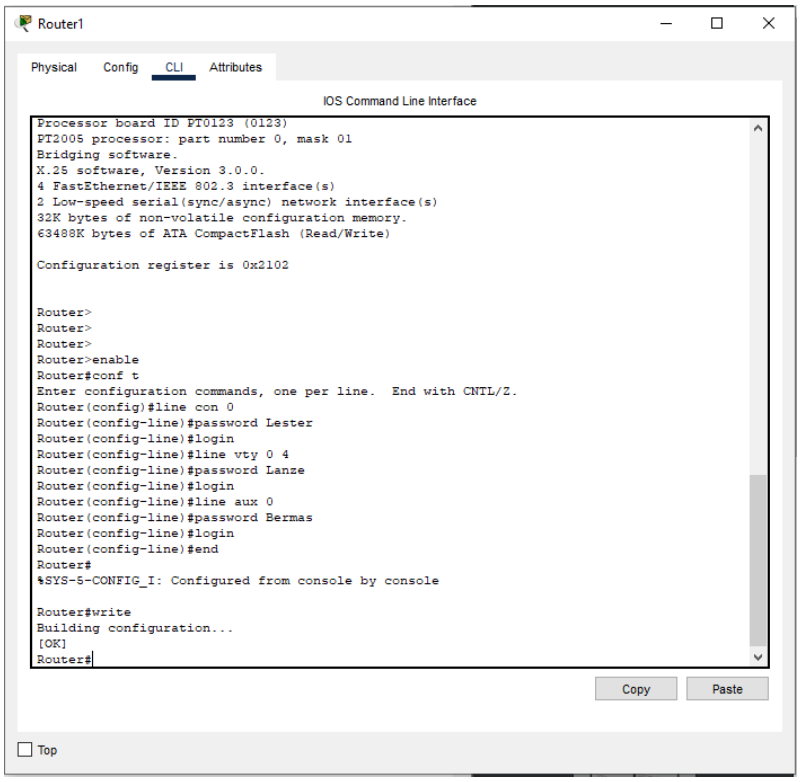
STEPS AND PROCEDURES:

1. **Open Cisco and Add Router and Switch. Go to router and check if it is on and go to (CLI) Command Line Interface.**

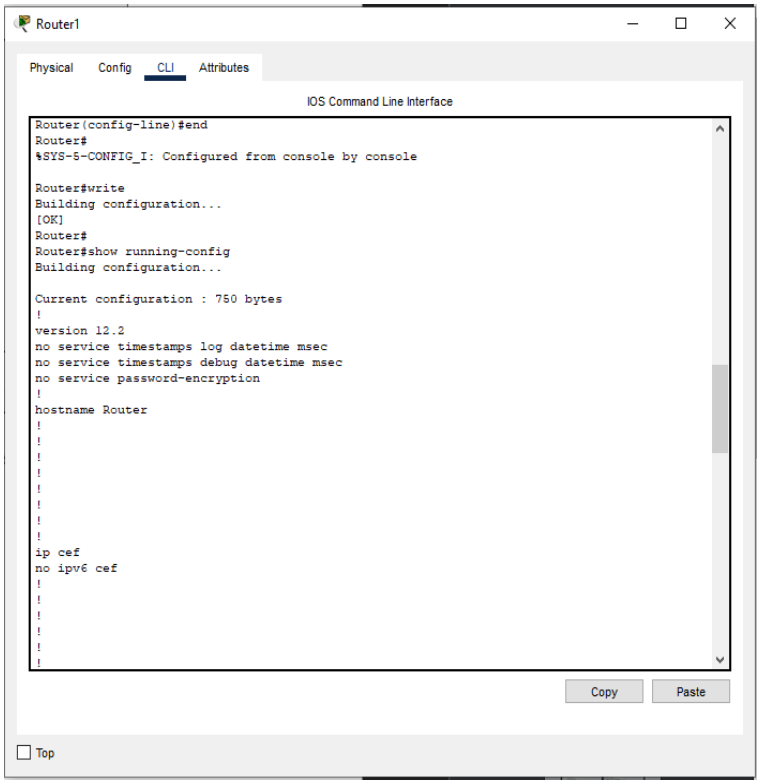
2. **Type command “enable” to enter to user exec-privilege mode and enter command “show version” to show the router’s register version.**

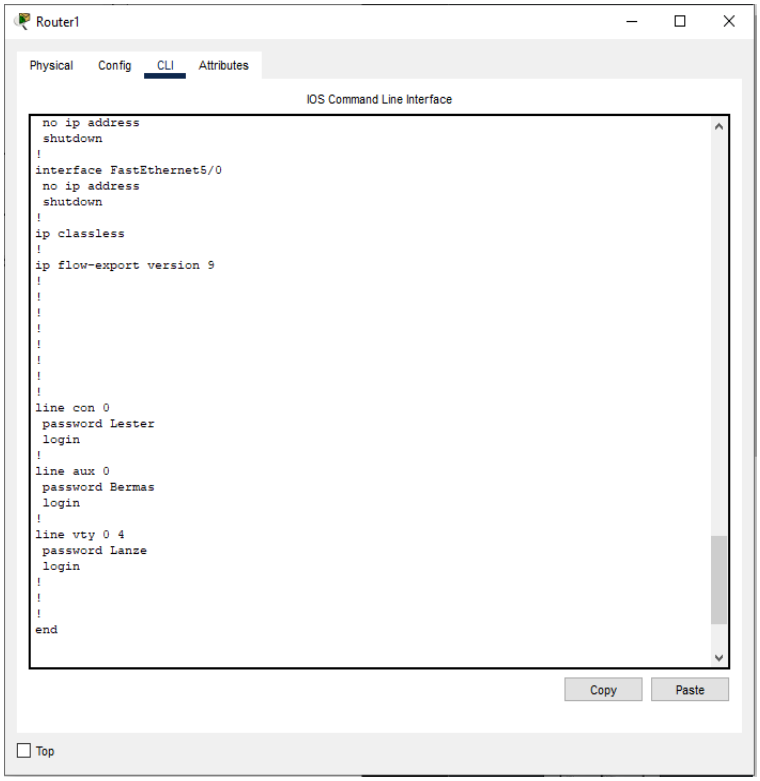


3. **Enter the command "conf t or configure terminal" to set a password in configuration. In order to do that we use "password and login" command. After setting up, use "end" command to end the process and "write" to save the password.**

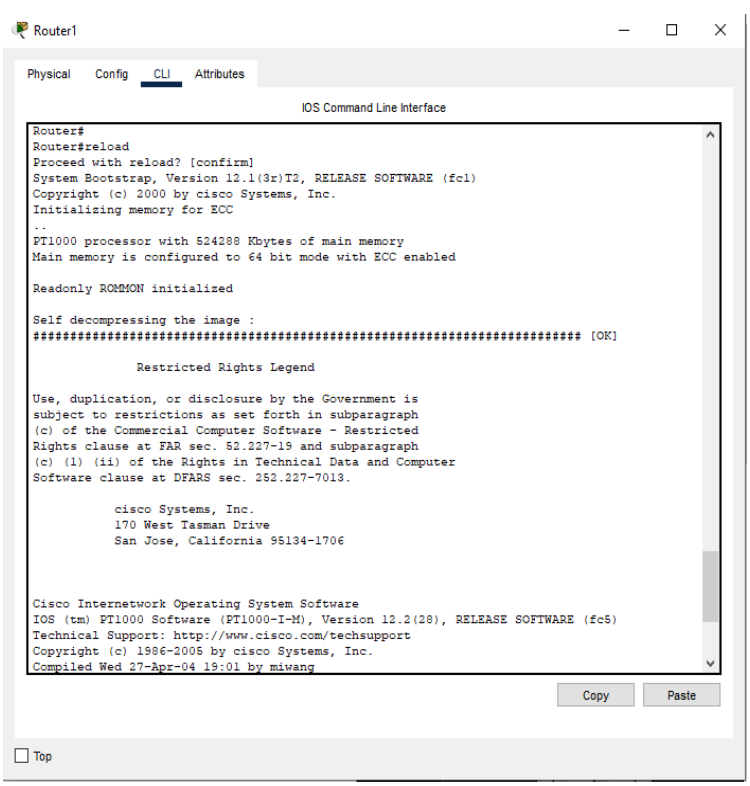


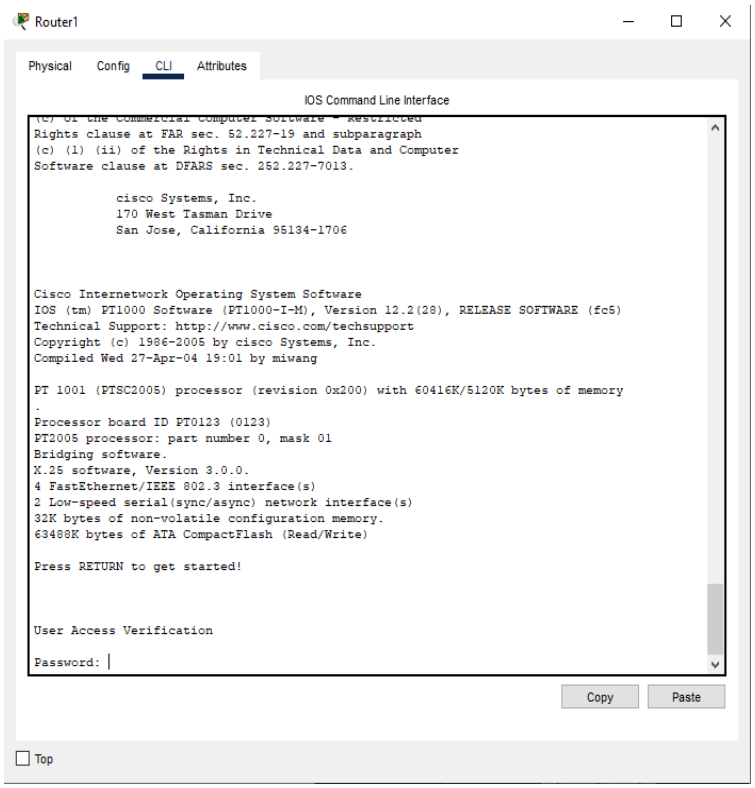
4. **To show the password we have set, enter the command "show running config"**



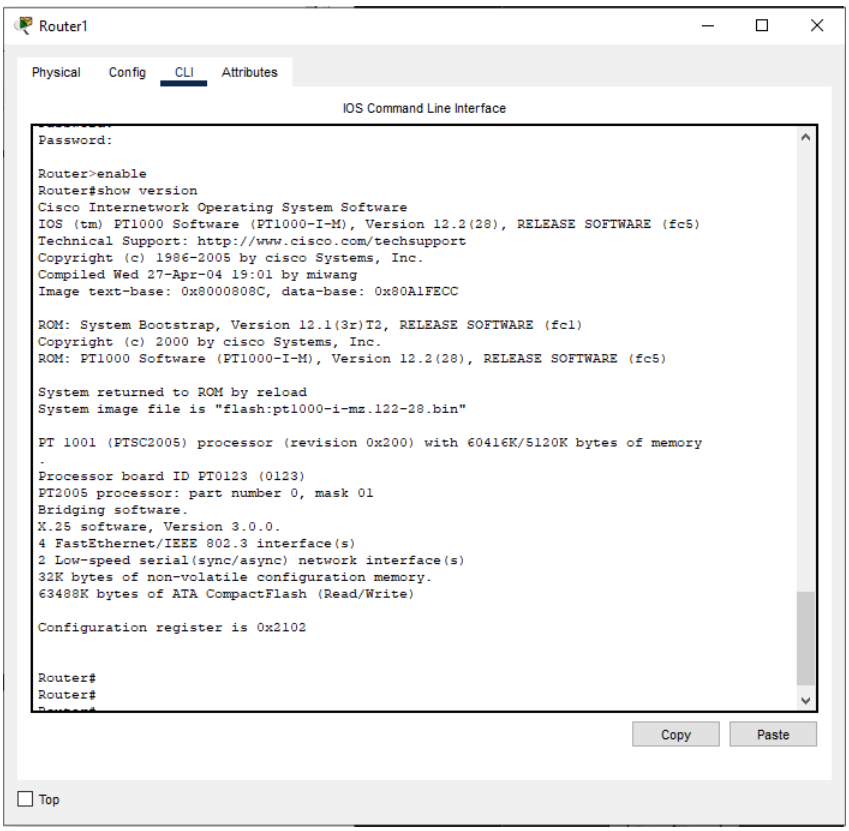


5. **Now, to restart the router we use “reload” command and input password that we’ve input in the configuration.**

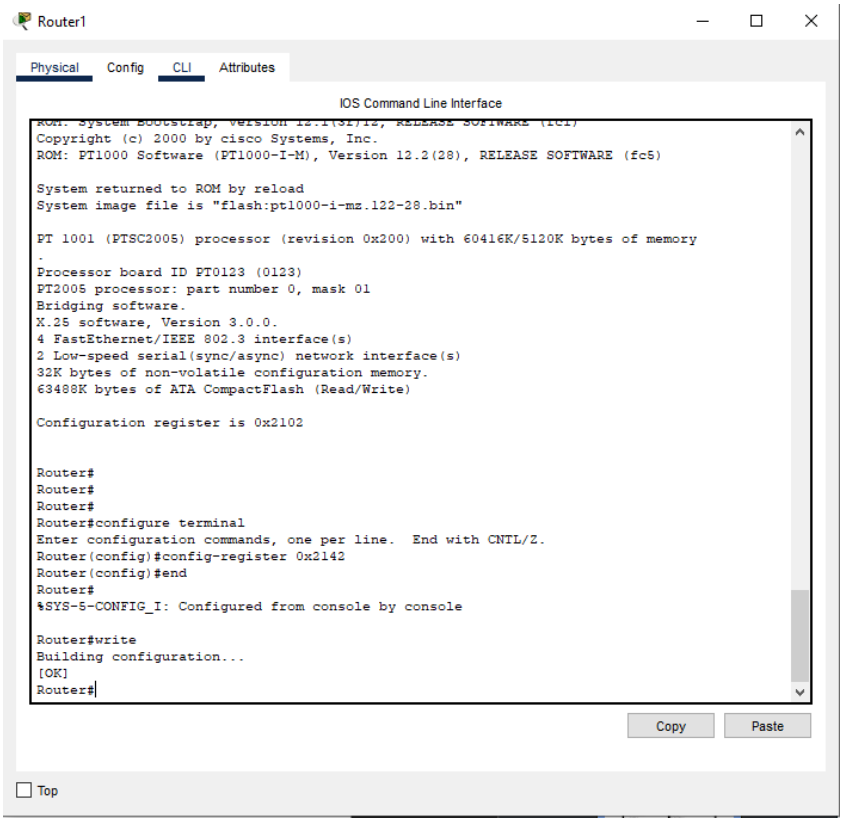




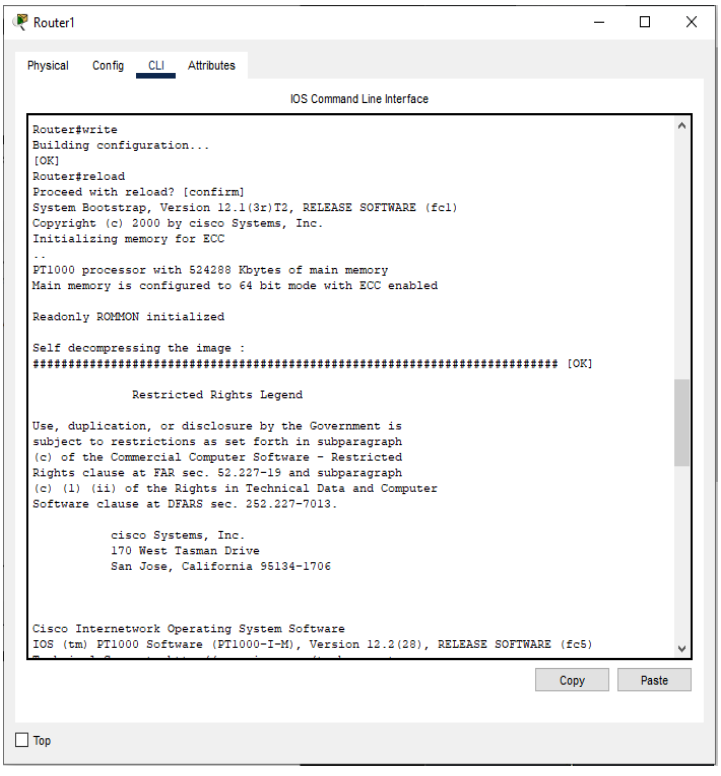
6. **Enter the command “enable” following the “show version” command to see the latest version, the configuration register should display 0x2102.**

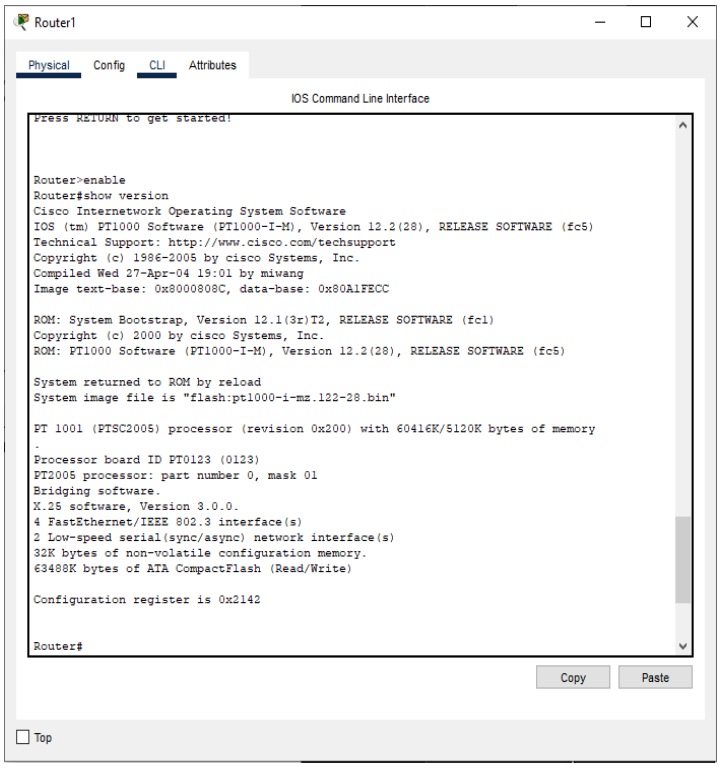


7. **Change the register from 2x2102 to 0x2142 to bypass the password by using the command "configure terminal and config-register" following, replace the register and enter the command "end" then "write" to save the process.**

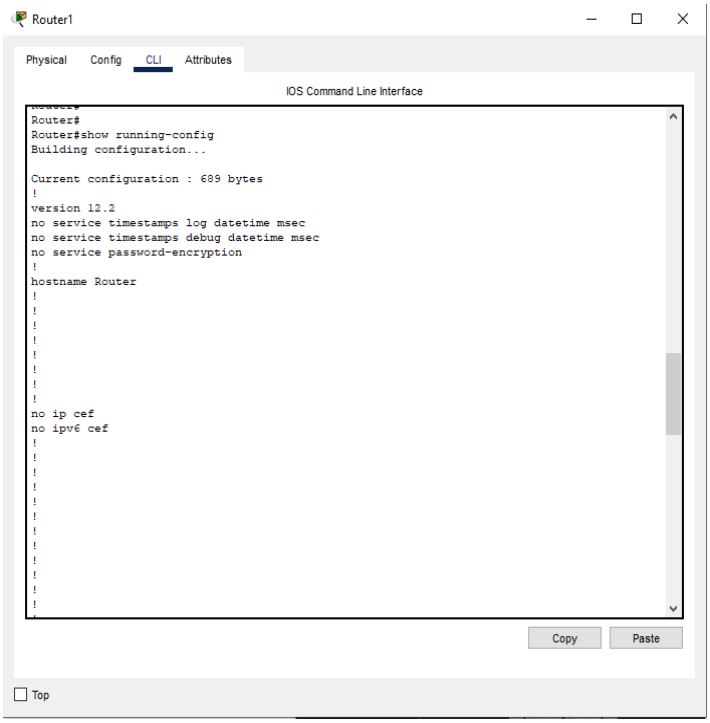


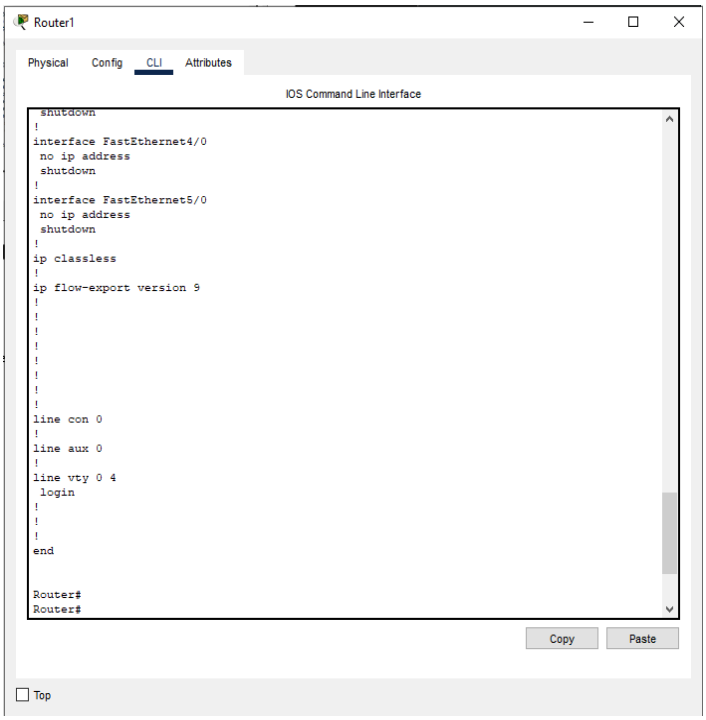
8. **In order to get the 0x2142 we have to enter command "reload" then type "enable & show version" the version must be 2x2142 it means that the configuration register has been bypassed.**



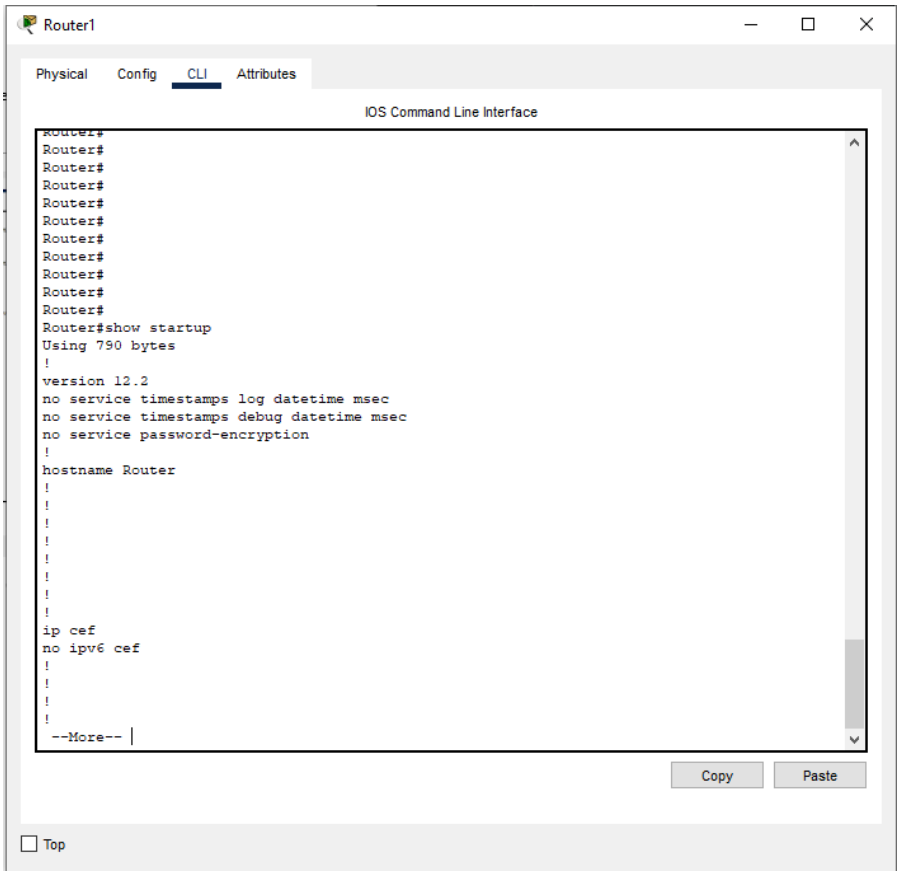


9. **Enter “show running-config” to be able to see if there are saved password. In the image we can see that no password was saved in the configuration.**

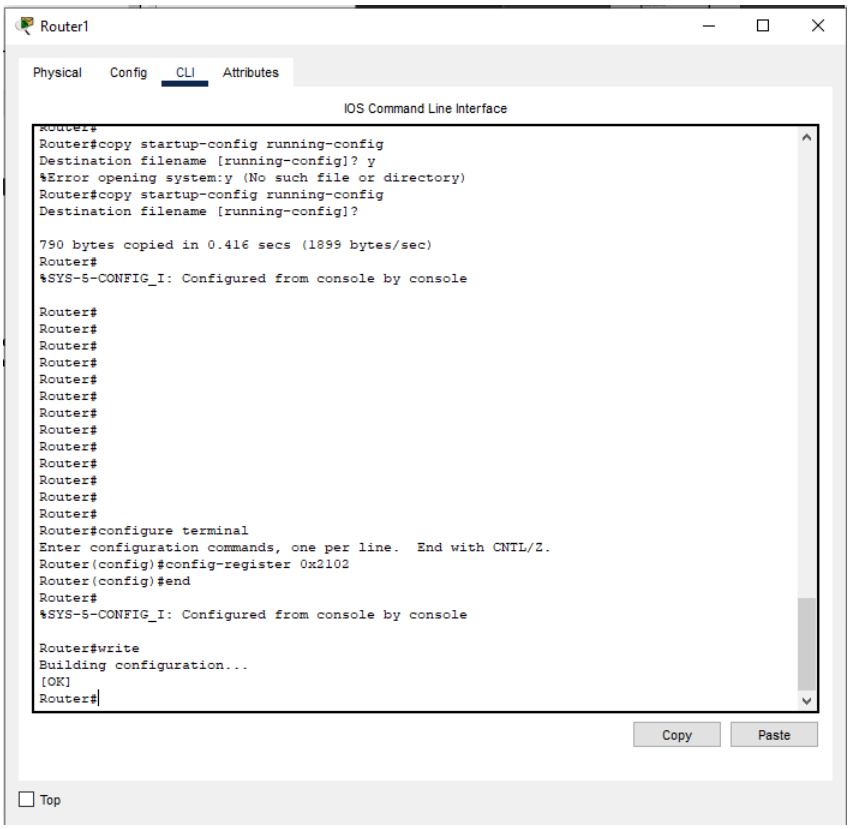




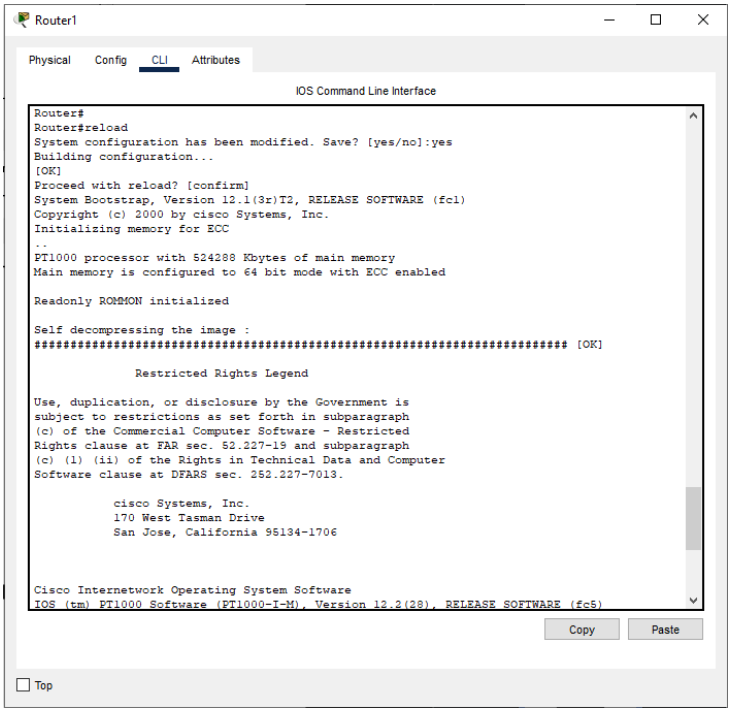
10. **Now, enter “show startup” to show the password of the configuration register 0x2102.**



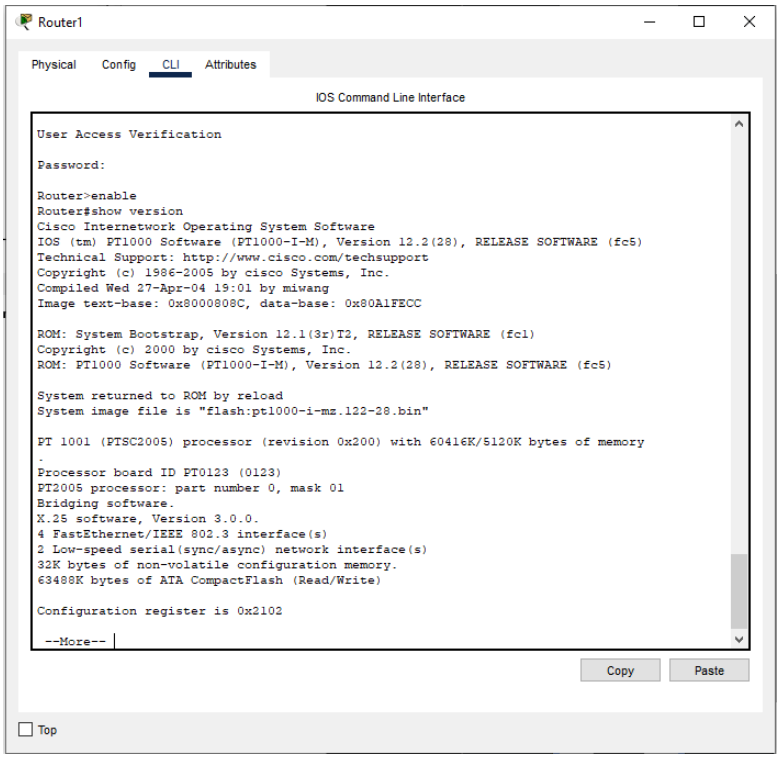
11. **Enter “copy startup-config running-config” to save the previous passwords. Enter the command “configure terminal” & “config-register 0x2102” to get the previous register.**



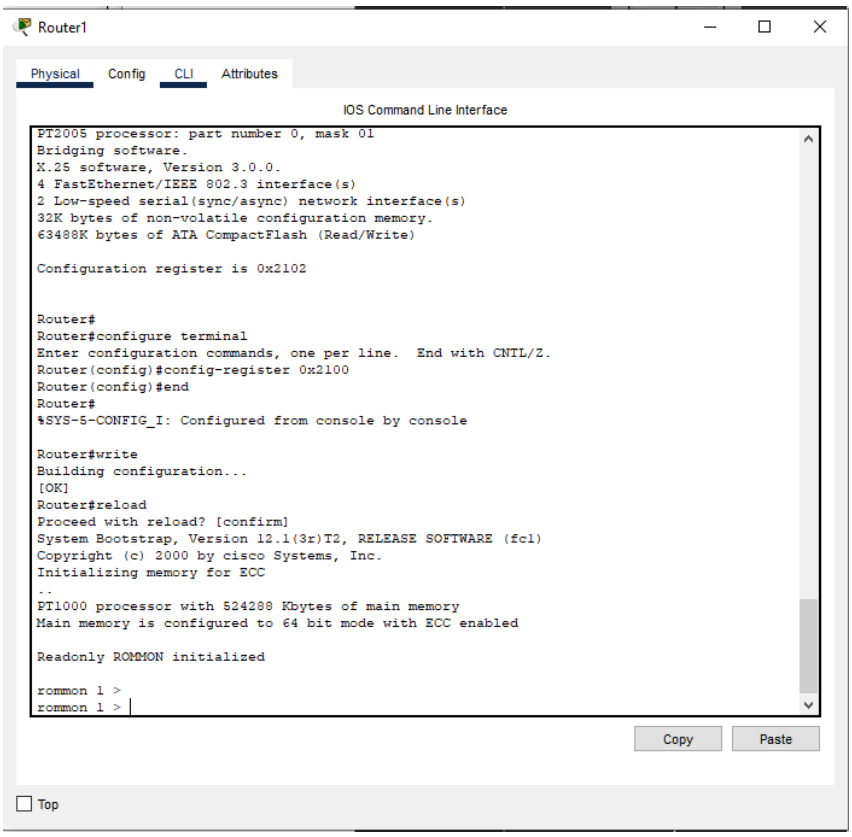
12. **Enter the command “reload” to restart the router. After that enter the password that you’ve set.**



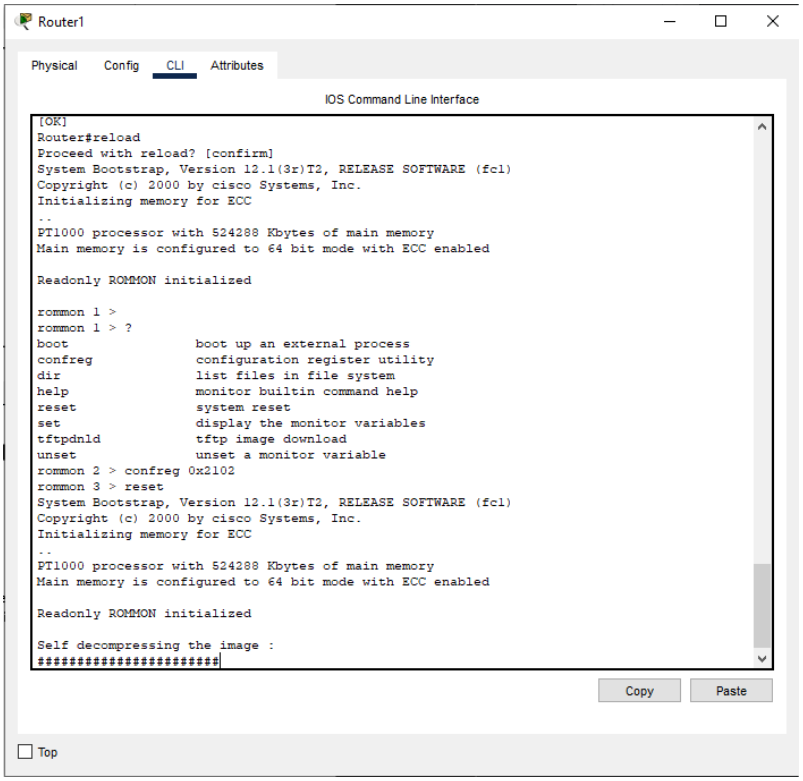
13. **It will show 0x2102 register is on the configuration terminal by inputting the command “enable” and “show version”**



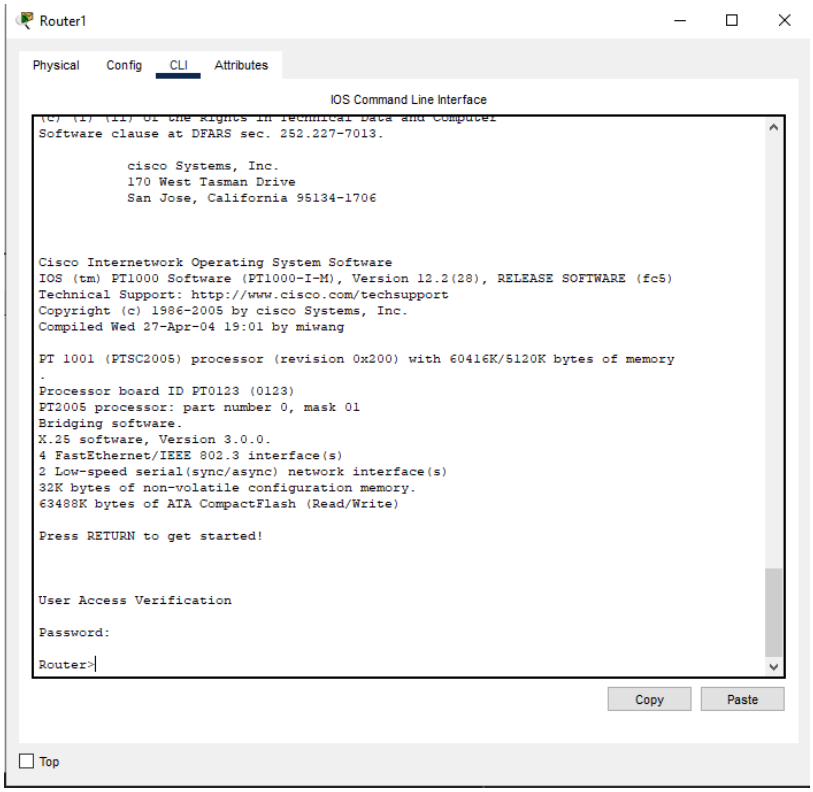
14. **For the next objective, go to third register. 0x2100 where located on ROM monitor mode. Enter the command “configure terminal” and “config-register 0x2100” to enter the ROM mode.**



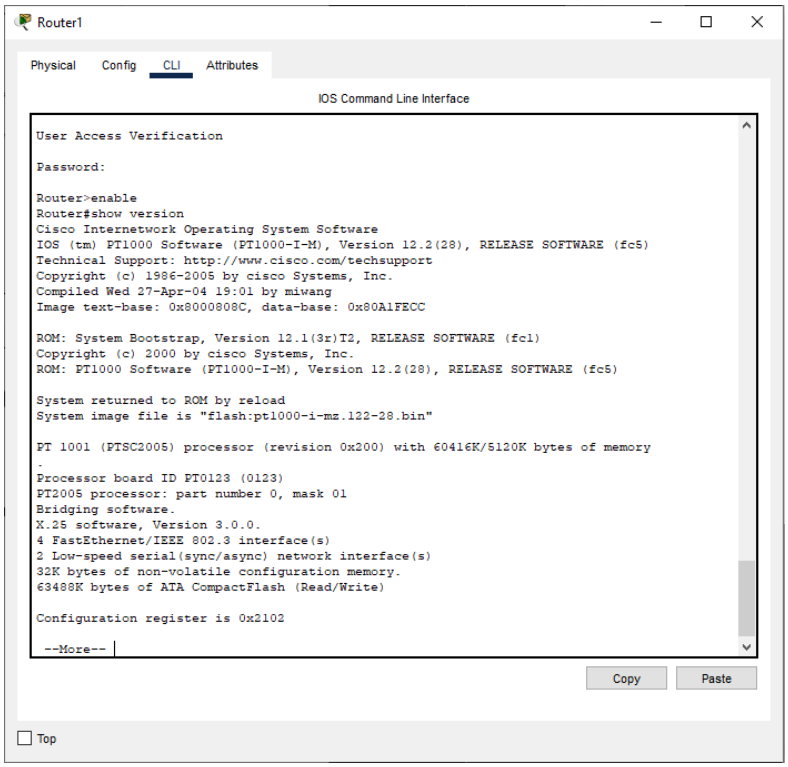
15. **Now, we enter the ROM mode, enter command "?" to see the command listed in CLI. Type the command "confreg" to see the configuration register utility then "reset" to reload the changes.**



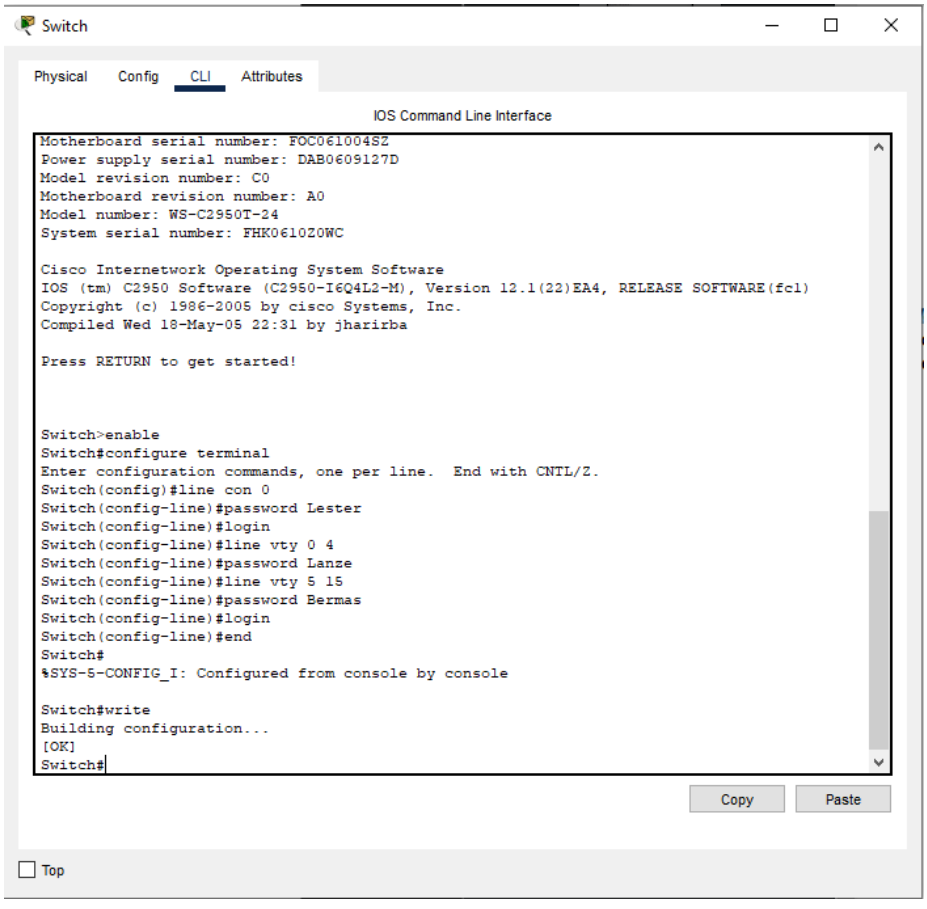
16. **If the CLI is reloaded, the interface asks for password.**



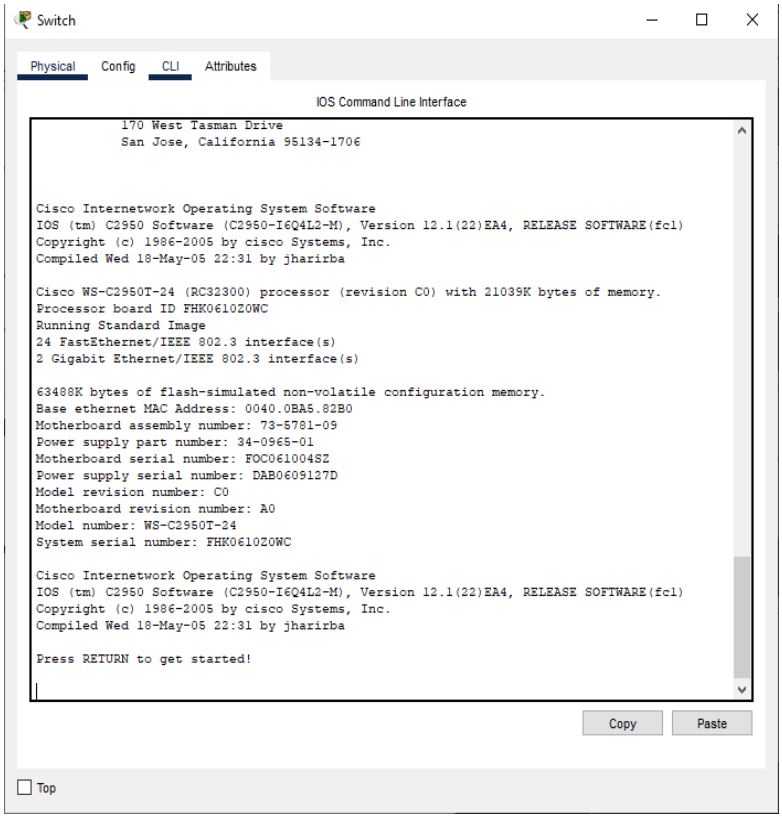
17. **Enter “enable” following by “show version” to see the latest configuration register.**

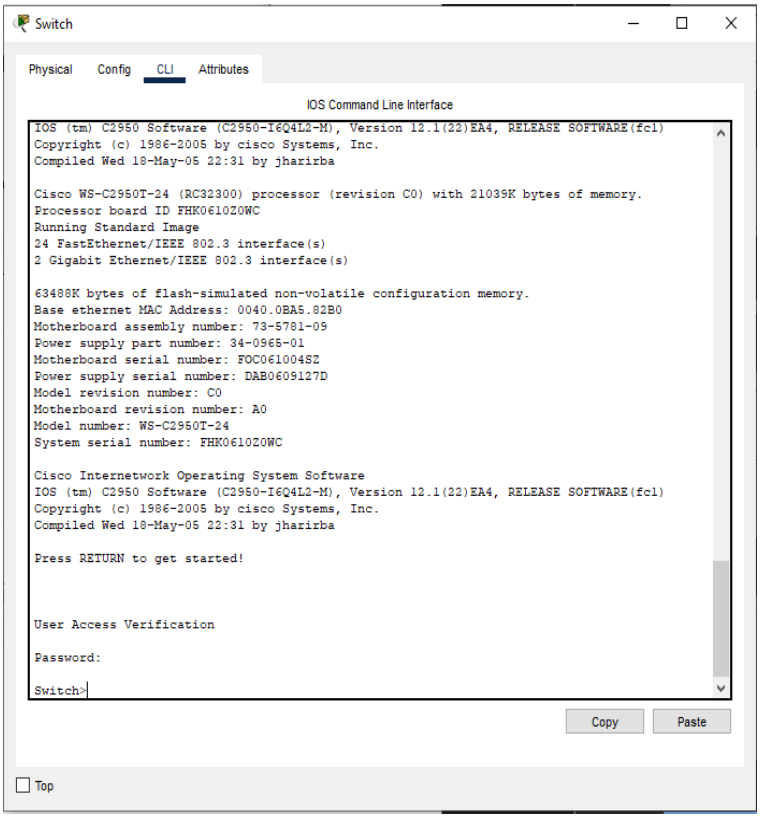


18. **We have completed the router, now go to switch. Go to switch CLI and type “enable” & “configure terminal” to check the version and configure the password. Do the same thing just like we have done on the router. Use command “write” to save password.**



19. **Use the command “reload” command to restart the switch and the CLI will ask for password.**





OBSERVATION AND RESULTS:

In this activity, I’ve noticed a lots of commands, in particular when we used (CLI) Command Line Interface, the activity result in this activity is how the registers’ password are updated in configuration settings and on each component, such as router and switch.

CONCLUSION:

To sum it up, the procedure of router and switch is important, we are making sure that the device is appropriately configured and prepared for to operate. By setting for the configuration register are used to regulate the device while booting up process. In this activity the configuration registers can be utilized in variety of ways to alter the behavior of routers.