

HOMework 03

Aslı Türkoğlu
20180808012

1. Fill in the grid below with the meaning of each intersection, for each, indicate how a service could be in that configuration:

	Inactive	Active
Disabled	The service is not running and it wasn't set to start at the boot time.	The service is running but it wasn't started at the boot time.
Enabled	The service was started at the boot time but it is now running.	The service is running and it has started at the boot time.

2-Choose two of the above grid locations. Show the command you would execute to cause the sshd service to move from one of the grid locations to another.

inactive-disabled to inactive-enabled
systemctl enable sshd.service

3-Why does enabling an inactive service not cause the service to begin running? Why does stopping an enabled service not cause the service to become disabled?

**it still remains inactive until i turn the system off and on then at the boot time service is running.

**enabled service not cause the service to become disabled because computer needs to be turned on and off then at the boot time it won't start, it remains disable..

4-List the three ways (commands) you could use to have a currently running service to use a new configuration. Which of the three ways would result in a new PID?

systemctl restart sshd.service
systemctl start sshd.service
systemctl stop sshd.service

5-What is the command to log into a remote shell?

ssh

6-Explain the difference between a public key and a private key.

They are used in encryption and decryption. These keys are used to encrypt/decrypt sensitive information.

Private keys It is used for both decryption/encryption and same key and algorithm are used. It is a faster encryption mechanism than Public key. Key is kept secret. Called "Symmetrical". The sender and receiver need to share the same key.

Public keys It is used for encryption. Private keys are used for decryption. One of the two keys is kept secret. Called "Asymmetrical". The sender and receiver do not need to share the same key.

7-What is the process for allowing a user to log into a remote shell without a password? You may list the commands.

ssh-keygen
ssh-copy-id -i
ssh remote-host

8-Define the terms device and connection in terms of networking?

Connection In networking, a connection refers to pieces of related information that are transferred through a network this generally infers that a connection is built before the data transfer and then is deconstructed at the at the end of the data transfer.

Device a network interface

9-Create a static connection for device eth0 with the IPv4 address of 192.168.11.1/16 and gateway of 192.168.255.254. Name this connection "hw-eth0". Add the DNS 192.168.255.255. Activate this connection. How would you check to make sure the connection was activated?

```
sudo nmcli con add con-name "hw-eth0" ifname eth0 type ethernet ip4  
192.168.11.1/16 gw4 192.168.255.254
```

```
-sudo nmcli con mod "hw-eth0" ipv4.dns 192.168.255.255  
-sudo nmcli con up "hw-eth0"  
-nmcli con show --active
```

10-Add the IP address 10.10.10.10/16 to the connection created in question 9:

a. How would you do this using the nmcli command?

```
nmcli con mod "hw-eth0" +ipv4.addresses 10.10.10.10/16
```

b. How would you do this by editing the configuration file?

```
echo "IPADDR1=10.10.10.10" >> /etc/sysconfig/network-scripts/ifcfg-hw-eth0  
echo "PREFIX1=16" >> /etc/sysconfig/network-scripts/ifcfg-hw-eth0
```