CSE 341 Homework Assignment 3

Theme: Chapters 8-12

Due:

Tuesday, 19-December-2023 by 15:30

Deliverables:

The following should be completed and submitted by the due date and time specified above. Submissions received after the deadline will be subject to the late policy described in the syllabus. Submit using MS Teams or in person in class.

Acceptable formats for the submissions include:

- Printed or neatly handwritten document (scanned)
- Microsoft Word, text, or PDF document
- Other similar methods

Grading Information:

This assignment is worth 100 points. Each task or question is worth 10 points.

Problem Set (assume the current user has username {your last name}{your first initial}):

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

	Active	Inactive
Enabled	0	1
Disabled	3	2

2. Take your Student ID and find the remainder when divided by 4. Find that location in the grid above. Now, take your Student ID add 2 and find the remainder when divided by 4. Find that location in the grid above. Show three different sets of commands you could execute to cause the chronyd service to move from the first grid location to the second grid location.
3. 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?
4. 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?
5. What is the command to log into a remote shell? Explain the difference between a public key and a private key.
6. Show the commands used for preventing superuser access on a remote host? For each command explain its purpose.
7. Show the commands used for allowing a user to log into a remote host without a password? For each command explain its purpose.
8. What would the prefix be if the address range for the subnet is the **maximum** possible number of addresses? How many addresses are possible? What would the prefix be if the address range for the subnet is the **minimum** possible number of addresses? How many addresses are possible?
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 “odev-eth0”. Add the DNS 192.168.255.255. Activate this connection. How would you check to make sure the connection was activated?
10. Add the IP address 10.10.10.10/16 to the connection created in question 9:
    a. How would you do this by editing the configuration file?
    b. How would you do this using the nmcli command?