



Cyber Security Tools – CronJobs

Model Answer

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Auto-graded task 1

In the first task, you were tasked with writing a CronJob that restarts the NetworkManager service every day at 4 PM. The following CronJob command achieves this task:

```
0 16 * * * /bin/systemctl restart NetworkManager
```

The provided solution restarts the NetworkManager service daily at 4 pm. The first part, `0`, denotes the minute when the command will execute. Here, it's set to `0`, indicating the start of the specified hour.

The next part, `16`, represents the hour when the command will run. In this instance, it's set to `16`, which corresponds to 4 PM in the 24-hour clock format.

Following that, `* * *` comprises three asterisks, each corresponding to the day of the month, month, and day of the week, respectively. When set to `*`, as in this case, it indicates that the command should execute every day of the month, every month, and every day of the week.

As a whole, the expression `0 16 * * *` instructs the cron scheduler to execute the subsequent command at 4 PM daily.

The command `/bin/systemctl restart NetworkManager` is the action to be performed. It restarts the NetworkManager service, which oversees network connections on the system. In essence, this CronJob facilitates the automated management of network services, enhancing system reliability and performance by ensuring that the NetworkManager service is regularly refreshed and maintained.

Auto-graded task 2

In the second task, you have been assigned to make your friend's computer restart every hour on Friday the 13th. The following CronJob command accomplishes this task:

```
0 * 13 * 5 /sbin/reboot
```

The cron expression `0 * 13 * 5 /sbin/reboot` is structured as follows:

1. Minute field (`0`):
 - The value `0` specifies that the command will execute at the **start of every hour** (i.e. when the minute is zero).
2. Hour field (`*`):

- The asterisk (*) means the job should run **every hour**.

3. Day of the month field (13):

- The number 13 indicates that the job will be executed only on the **13th day of any month**.

4. Month field (*):

- Again, the asterisk (*) signifies that the job should run **every month**.

5. Day of the week field (5):

- The value 5 corresponds to **Friday** (since Sunday is represented by 0, Monday by 1, and so on).

6. Command (/sbin/reboot):

- The `/sbin/reboot` command instructs the system to **reboot** (restart).

In summary, this CronJob will reboot the computer every hour specifically when it's Friday the 13th of any month. By doing so, it ensures regular system maintenance and stability.