CIS133 Homework #9 -Cron & AT

1. You should already have a 2nd virtual hard drive on the server from a previous assignment and one of the partitions should be mounted to the DATA directory.   You will use this partition in this assignment. Confirm your setup by providing the following
    a. the contents of the /proc/partitions file
    b. the contents of the /etc/fstab file
    c. the output of the mount command after the system boots.

CRON

2. Confirm that the cron daemon is currently running and that it's configured to start at boot. Include the command and its output as your answer.

3. Create a script that will backup the /home folder and all of its contents to the partition referenced in question 1. Use the cron.*time* folders to schedule the script to run hourly. (I do know that hourly is not realistic but I want you to be able to confirm that it worked.)
    a. Where did you store the script?
    b. What did you name the script?
    c. Display the contents of the folder in which you stored the script (ls –l)
    d. Display the contents of the script.
    e. After you've confirmed that the script has successfully executed, display the contents of the /var/spool/cron/lastrun folder (ls –l)
    f. Display the contents of the /var/spool/mail folder.

4. Assume you wanted to run the script created in question 3 daily. Where *should* the script be stored?

5. Modify the /etc/crontab file to execute the script created in question 3 every 2 days at 2 a.m.
    a. Where did you store the script?
    b. Display the contents of the /etc/crontab file.

6. Login as a regular user. As this user create a directory named temp in his/her home folder. Create some files and folders within the folder. Create a crontab file that will delete the contents of the temp directory (all files and folders but not the directory itself) on the first of each month at 6 a.m. Do not use a script for this problem.
    a. What user did you use?
    b. What command did you use to create the job?
    c. Use the crontab command to display the contents of the user's crontab file.
    d. Display the contents of the /var/spool/cron/tabs folder (ls –l)
    e. Display the contents of the /var/spool/mail folder.

7. Using the same user as used in problem 6, modify the user's crontab file. It must continue to do what it currently does and it must now execute a script written by you. The script must be stored in the user's bin directory and it must be scheduled to run every Monday thru Friday at 11p.m. Assume the user has a usb device attached to his/her computer and that it is mounted to a folder named usb in the /mnt folder. The script must copy the entire contents of the user's home folder to a folder named backup (/mnt/usb/backup)
   a. What command did you use to create the job?
   b. Use the crontab command to display the contents of the user's crontab file.
   c. Display the contents of the /var/spool/cron/tabs folder (ls -l)
   d. Display the contents of the /var/spool/mail folder.
   e. Display the contents of the user's bin directory (ls –l)
   f. Display the contents of the script.

8. While logged in as root,
   a. Display the contents of the user's crontab file – the user used in questions 6 & 7. Provide the command and its output.

9. This problem requires that you *fill in the below table* with entries that could be used in a crontab file to schedule a task as specified. Yes, I want the table as is presented below!

	Min	Hour	Day of Month	Month	Day of Week	
A						At 12 noon on the 15th of every other month
B						At 2:30 p.m. on the 1st, 15th and 25th of January, April, July & October.
C						At 8:15 a.m. and 8:45 a.m. on every Monday, Wednesday, & Friday
D						Every half hour of every day

10. If neither the cron.allow or cron.deny files exist, who can schedule jobs with cron?

11. Assume the /etc/cron.allow and /etc/cron.deny both exist. Also assume the username Manny is in both files. Will Manny be able to create a personal crontab file? Explain your answer.

AT
12. Confirm that the atd daemon is currently running and that it's configured to start at boot. Provide each command and its output.

13. Use the *at* command to schedule one of the scripts that you created earlier in this assignment to run in 15 minutes from now.
   a. Provide the command used and its output.
   b. Execute the command that will list the jobs that are scheduled to run by the atd daemon. Provide the command and its output.
   c. Execute the command to delete the scheduled job.