Exercise 2 – Linux Session

1. Review questions
2. Which is the default shell on Linux ?

Bash is the default shell on Linux and it emulates Bourne shell if it is invoked using “sh”

1. Which pager command is used by the **man** command on Linux ?

Man is the system’s manual pager, the more command (when text on a screen is too large, it pages it)

1. Which command shows keyboard control character mappings ?

The stty() command shows keyboard control character mappings.

1. What content type must a file have so that commands such as **cat**, **more**, **tail**, **grep** would work correctly ?

The content type must be a file, in order for the cat, more, tail and grep to work correctly.

1. Which file reading tool is most useful for the purpose of reading system log files (e.g. to read the last few lines of a log file) ?

tail –n 2

1. Describe how **grep** could be useful in reading log files ?

The grep command essentially displays lines that contain the requested pattern, i.e. matching the specific search parameters.

1. Experimenting with login shells
2. You should already know how to login into the default GUI environment. In this exercise we will establish three additional CLI (Character Line Interface) sessions, each associated with a different function key. Remember, if the class is NOT running at QA premises, you could be running within VMware or VirtualBox (meaning the keystroke sequence is subtly different - ask your instructor for help if unsure...).

Log into your VirtualBox with the user created through VirtualBox (if not already logged in) and open 3 different CLI’s. Once established, leave these sessions running until asked otherwise.

1. Switch between the various active sessions, to prove all is working fine!
2. Explore some basic system interrogation commands

You should still be logged into three CLI sessions. Make sure you use man pages, to learn more about the commands you are about to try. We will see all these commands a lot, as we progress through the course.

1. Switch back to the GUI screen and start a Terminal shell program.
2. List all currently logged on users. - **who**
3. What is the default output (i.e. with no options specified) for the **cal** command? - **It will display the current month in the terminal, with the current day highlighted**
4. Display the calendar for September 1752, check the **man** pages if you are unsure of the arguments. What was unusual about that month?
5. Check the *system name* and the *kernel release* using **uname**. Which options are required? **-s -r**
6. List processes associated with your current session. **ps**
7. Display partition (filesystem) utilisation **df**
8. Introducing simple data manipulation commands
9. Use **wc** to find out how many lines are there in the **/etc/passwd** file. **cat /etc/passwd | wc -l - 40**
10. Use **grep** to find the IP address of the host **localhost**, by searching for the line containing string **localhost** in the **/etc/hosts** file.

**cat /etc/hosts | grep localhost**

1. Use **tail** to display the last two lines of the **/etc/passwd** file (hint: you may need to use the -n flag to specify the amount of numbers).

**tail -n 2 /etc/passwd**