

# Assignment 6

Satyam Kumar  
ID: 201552062

November 12, 2018

1. What are the file permissions at the end of the following commands?

```
$ umask a=r
```

```
$ touch k1
```

```
$ ls -l k1
```

```
[satyam@Eulerton ~]$ ls -l k1  
-r--r--r-- 1 satyam sysadmin 0 Nov 10 21:47 k1
```

2. Give an example of clobbering and how to stop it.  
Clobbering can be stopped by set -o noclobber

3. What are the file permissions at the end of following commands?

```
$ umask 345
```

```
$ touch k1
```

```
$ chmod 436 k1
```

```
$ ls -l k1
```

```
[satyam@Eulerton ~]$ umask 345  
[satyam@Eulerton ~]$ touch k1  
[satyam@Eulerton ~]$ chmod 436 k1  
[satyam@Eulerton ~]$ ls -l k1  
-r---wxrw- 1 satyam sysadmin 0 Nov 10 22:03 k1
```

4. If you want to create a file “-xyz”, which command you should use?

```
[satyam@Eulerton ~]$ touch -- -xyz  
[satyam@Eulerton ~]$ ls -- -xyz  
-xyz
```

5. If a file has 000 permissions, then a root can .....the file. (read and/or write and/or execute )
6. Which default permissions do you need to open a directory?  
Default permission should be read.
7. If you want to add a sticky bit to the file, which command do you use? Example.
8. Give examples of different filesystems.  
ext4, ext3, FAT, NTFS,

9. What is the starting point of the filesystem in Linux?  
Starting point of Linux filesystem is /
10. What is absolute pathname?  
An absolute pathname, also referred to as an absolute path or a full path, is the location of a filesystem object (i.e., file, directory or link) relative to the root directory.
11. What is relative pathname?  
A relative pathname does not begin with a slash ( / ). Generally you specify location relative to your current working directory.
12. If a filename has a space in it, which command-line option is used to access the file?  
Use Quotes or \ for spaces in filenames. (e.g., mkdir Hello World, mkdir "Hello World")
13. Which command is used to unmount a filesystem?  
umount
14. Why the df command is used?  
The df command is used to show the amount of disk space that is free on file systems. This default action is to display used and free file space in blocks.
15. Commands of Linux operating system reside in which directory?
16. Which directory of Linux stores the Linux kernel?  
/lib: The Lib directory contains kernel modules and shared library images required to boot the system
17. Which directory of Linux stores the device drives?  
/dev : Contains device files for all the hardware devices on the machine
18. Which directory of Linux stores the configuration files?  
/etc : Contains Application's configuration files, startup, shutdown, start, stop script for every individual program.
19. Which directory of Linux stores the information about running processes?  
/proc : A virtual and pseudo file-system which contains information about running process with a particular Process-id aka pid.
20. Which directory of Linux is used as a default mount point of removable media?  
/mnt : Temporary mount directory for mounting file system.
21. Which directory of Linux is a home of the superuser?  
/root : This is the home directory of root(or super) user
22. What is the difference between locate and find command?  
find searches in the real system. Is slower but always up-to-date and has more options (size, modification time,...)  
locate uses a previously built database (command updatedb). Is much faster, but uses an 'older' database and searches only names or parts of them.

23. If you type `find`, what will be the output?  
This command will search for files in a directory hierarchy. If no starting-point is specified, `.` is assumed.
24. If you type `find .`, what will be the output?  
Prints a list of files in the current working directory.  
It will search all the files and directory to
25. How many types of files are available in Linux OS? Regular files  
Directories  
Character device files  
Block device files  
Local domain sockets  
Named pipes (FIFOs)  
Symbolic links
26. Which character/symbol is used to represent a regular file in the output of `ls -l` command?  
Hyphen(-) represents regular file in the output of `ls -l` command
27. Which character/symbol is used to represent a directory in the output of `ls -l` command?  
Symbol `d` represents a directory in the output of `ls -l` command
28. Which character/symbol is used to represent a character device file in the output of `ls -l` command?  
Symbol `c` is used to represent a character device file in the output of `ls -l` command
29. Which character/symbol is used to represent a block device file in the output of `ls -l` command?  
Symbol `b` is used to represent a character device file in the output of `ls -l` command
30. Which character/symbol is used to represent a named pipes in the output of `ls -l` command?  
Symbol `p` is used to represent a character device file in the output of `ls -l` command
31. Which character/symbol is used to represent a symbolic link in the output of `ls -l` command?  
Symbol `l` is used to represent a character device file in the output of `ls -l` command
32. Which command is used to create a directory?  
`mkdir [option] <directory-name(s)>`
33. Which command is used to create a symbolic link?  
`ln -s`
34. What is the meaning of `-` before the filename?  
`-` indicates that everything follows is a filename and not an option.
35. Why the inode data structure is used?

36. Why the stat command is used?  
It is preferred when viewing the inode information of any individual file(s).
37. Which are the time related attributes available in inode?
38. Which command do you use to create a hard link?  
`ln <file-name> <link-name>`
39. Which command is used to view the total number of hard links of a file?  
`ls -l`
40. In Linux, what is the meaning of . symbol?  
The “.” refers to the current directory.
41. In Linux, what is the meaning of .. symbol?  
The “..” refers to the parent directory.
42. What is the difference between a hard link and a symbolic link?
43. How many links are created by default, when we create a directory?  
2 links are created by default
44. List at least one command/file-name (except passwd) which has setuid/setgid bit set.