Introduction to UNIX/LINUX
Part 3

Changing file permissions and attributes commands

To change file or directory permissions, you use the chmod (change mode) command. There are two ways to use chmod: **symbolic mode and absolute mode.**
With symbolic permissions you can add, delete, or specify the permission set you want by using following operators: =, +, -

Command	Description
chmod	changes the permissions of a file or directory
chown	changes the ownership of a file
chgrp	Changes the group ownership of a file

How to use chown command

chown command is used to change the owner and/or group of files and directories

Basic syntax for changing the owner:

chown [option] new_owner **file**

To change groups:

chown [option] :new_group **file**

$

Changing the file permissions in symbolic mode

chmod operator	Description
+	Adds the designated permission(s) to a file or directory
-	Removes the designated permission(s) from a file or directory
=	Sets the designated permission(s)

Example:

- $chmod o+wx testfile
- $chmod u-x testfile
- $chmod g=rx testfile

Changing the file permissions in absolute mode

Number	Permission
0	No permission (---)
1	Execute permission (--x)
2	Write permission (-w-)
3	Execute and write permission (-wx)
4	Read permission (r--)
7	All permissions (rwx)

Command	Description
chmod 755	changes the permissions of file to be rwx for the owner, and rx for the group and the world. (7 = rwx = 111 binary. 5 = r-x = 101 binary)
chmod 777	changes the permissions of file to be rwx for the owner, the group, and the world

Searching for strings in files - grep

Command	Description
grep strings filename	Search file for specific pattern or string
grep –i	To ignore upper/low case distinctions
grep -w	Checking for full words, not for sub-strings
grep -v	Display lines that DO NOT match the pattern
grep -n	Precede each line with the line number
grep -c	Return only the total count of matched lines
grep -r	Sets the search to “recursive”, so it will search the current directory and all subdirectories for any file that contains the pattern

Redirection the result

Command	Description
grep string filename > newfile	Redirects the output of the above grep command to a file 'newfile‘
grep string filename >> existfile	Appends the output of the grep command to the end of 'existfile’

Searching for file

find search_path -name filename

Option	Description
find . -name aaa.txt	Finds all the files named aaa.txt in the current directory or any subdirectory tree
find / -name vimrc	Find all the files named 'vimrc' anywhere on the system
find /usr/local/games -name "*xpilot*"	Find all files whose names contain the string 'xpilot' which exist within the '/usr/local/games' directory tree

UNIX Interview Questions

- What is a command to change directory to directory name?
- What is a command to change permissions?
- What is a command to copy?
- What is a command to display information about file type?
- What is a command to search files?
- What is a command to create a new directory?
- What is a command to move a file to a different location?
- What is a command to remove a file?
- What is a command to remove a directory?
- What is vi?
- How to save changes in vi editor?
- What is ftp?