# Assignment – 6

1. Which command is used to list the contents of a directory? Justify with proper example .

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ ls

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* ls command lists all the files and directory from working system.

1. Write the command to create a new directory named 123test\_dir. ?

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ mkdir test

* mkdir creates a empty directory of name test
* ┌──(kumya㉿sonic)-[~]

└─$ ls

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* to check that we can use ls – command.

1. What is the purpose of the sed command? Justify with proper example. ?

Answer->

Sed is used for finding , filtering and transforming text within a file , or standard input ,without having to even open the text editor

* Finds and replace text
* Delete lines
* Insert or append text
* Print line
* ┌──(kumya㉿sonic)-[~]

└─$ sed "s/Linux/UNIX" file1.txt

* Sed replaces “Linux “ with “UNIX” at each line in file1.txt
* s is used to substitute

1. Which distinct command is used to display one-line descriptions of any commands?

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ whatis <command name>

* Command name -> can be any basic commands that are used
* With this command we will get hole information of the basic command
* This is useful when you want know about the command.

1. Write the command to create an empty file named “notes.txt” ?

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ touch notes.txt

* touch command is used to create empty file
* notes.txt empty file is created by touch command.
* ┌──(kumya㉿sonic)-[~]

└─$ ls

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* By ls command we can see the empty file named notes.txt is created.

1. Differentiate between grep and awk commands with an example. ?

Answer->

| **grep** | **awk** |
| --- | --- |
| Searches for pattern in text. | Process text line by line and perform an action. |
| **Matching text** | **Extracting and processing field** |
| Simple matching pattern. | More powerful – a programming language for text manipulation. |

Grep “error” logfile.txt awk ‘error’ logfile.txt

1. Write the command to give read, write, and execute permission to the owner of a file script.sh. ?

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ chmod u+rwx script.sh

* Chmod -> changes mod.
* U -> user/ owner.
* +rwx -> r(read) ,w(write) and x (execute) permission.
* Script.sh -> permission given to script file.
* rwx -> for owner
* --- -> for group
* --- -> for other

1. How is chown different from chgrp? Give one example for each. ?

Answer->

| **chown** | **chgrp** |
| --- | --- |
| chown | chgrp |
| Changes owner | Change group |
| Changes the owner of file or directory | Changes the group ownership of file or directory. |

Chown “new\_owner” file.txt chgrp “new\_group” file.txt

1. A user complains that they cannot execute a file even though it exists in their directory. How would you troubleshoot this using ls -l, chmod, and whoami ?

Answer->

* Checks the permission by ls -l command

1. ┌──(kumya㉿sonic)-[~]

└─$ ls -l file1.txt

1. -rw-rw-r-- 1 kumya kumya 696 Sep 24 21:36 file1.txt
2. Make sure there is execution permission
3. To give execution permission then run “chmod +x file1.txt”

* Run whoami command

1. ┌──(kumya㉿sonic)-[~]

└─$ whoami

Kumya

1. You need the execution permission for the file.

* Run chmod command

1. ┌──(kumya㉿sonic)-[~]

└─$ chmod a+x file1.txt

1. Gives all permission to owner, groups and others.
2. Design a command pipeline to: find all .log files modified in the last 2 days in /var/log, display them on screen, and save the results into a file recent\_logs.txt using tee command. ?

Answer->

* ┌──(kumya㉿sonic)-[~]

└─$ find /var/log -type f -name "\*.log" -mtime -2 | tee recent\_logs.txt

* find /var/log -> start searching in /var/log directory
* -type f -> only looks for file.
* -name “\*.log” -> only matches with .log files .
* -mtime -2 -> checks in modified file in last 2 days.
* | tee recent\_logs.txt -> pipes output in recent\_logs.txt file.
* Output -> /var/log/syslog.log

/var/log/auth.log

/var/log/kern.log