**UNIX ASSIGNMENT**

1. **tar**

tar’ stands for tape archive. This command is used to compress the directories and files.

Options

-c :- create a new archive

-v:- verbosely show the .tar file progress

-f:- file name of the type archive.

-x:- extracting the files.

-r:- like -c but new entries are appended to archive. It only works on uncompressed archives stored in regular file. The -f option is required.

Problem 1: Creating an uncompressed tar archive using option –cvf for the backup of files.

tar -cvf file.tar \*

Problem 2: Extracting files from archive using option –xvf

tar -xvf file.tar

1. **Find**

Find command is used to find files and directories and perform subsequent operations on them. It supports searching by file, folder, name, creation date, modification date, owner and permissions.

Problem 1:  Find Files Using Name in Current Directory

find . -name filename.txt

Problem 2: Find Last 50 Days Accessed Files

find / atime 50

1. **locate**

Unlike find (searching file system), locate searches file with the help of a database for all pathnames which matches the specified pattern. It is comparatively faster than find.

Problem1: using locate to search case insensitive output.

Locate -i filename.txt

Problem 2: Display the files present in the system.

Locate -i -e filename.txt

1. **diff**

It is a command which compares file line by line with an additional advantage. Flags used for instructions are -(a: add, c: change, d: delete)

Problem 1: Command to view differences of two files.

cat file1

cat file2

diff file1 file2

Problem 2: To view differences of two files in context mode.

cat file1

cat file2

diff -c file1 file2

1. **Tail**

It is a utility command to see the last lines added to files through standard input.

Options: -n: Lines, -c : bytes

Problem 1: Command to Prints last 2 lines from specified file .

cat file1

tail -n 2 file1

Problem 2: Command to Print 8 bytes from specified file.

cat file1

tail -c 2 file1

1. **less**

less command is generally used with large files to view the contents of file page by page.

Less command is used to read contents of text file one page per time.

Commands:

Problem 1: Write a command to view ‘abc.txt’ file.

less abc.txt

Problem 2: Write a command to view from 4th line of ‘abc.txt’ file.

less +4 sample.txt

1. **hard link and soft link**

With Hard Link, more than one file name references the same inode number.

Problem 1: Create hard link between two files.

touch f1.txt

ln f1.txt f2.txt

ls – i f1.txt

ls – i f2.txt

Problem 2: Create soft link between two files.

touch f1.txt

ls -s f1.txt f2.txt

ls -l f2.txt