***Shell Scripting***

A file descriptor is an integer number to identify ***STDIN, STDOUT and STDERR.***

|  |  |
| --- | --- |
| 0 | STDIN |
| 1 | STDOUT |
| 2 | STDERR |

& - to store success output and error output into a same file.

ls & > file.txt

Read a file content by opening it – Using vi and vim editor

Read a file content without opening it – cat,less and more

Read a file content with conditions – tail, grep, awk

more -2 file.txt: top 2 lines

more +4 file.txt: from fourth line it starts displaying.

head filename.txt: Display top 10 lines by default.

Display a range of lines

head -12 lines xyz.txt | tail -7 : Display 6 to 12 lines

awk ‘NR>=6 && NR<=12 {print}’ xyz.txt

sed -n ‘6,12p’ xyz.txt

Grep

grep command: used to search for a given string.

***Basic Options***: -i -w -v -o -n -c -A -B -C -r -l -h

***Advanced Options***: -e -f and -E

grep [options] “string/pattern” file/files

-i: To ignore case for matching/searching.

-w: To match a whole word.

-v: To display lines that are not matching with a given string

-o: To display only matched part from matched lines

-n: To display matched line numbers

-c: To display matched number of lines

-r: to search under its current directory and sub-directory

-l : to display only filenames

grep -f “search string or pattern” filename

-f : takes search string from a file

grep -e “string1” -e “string2” filename

grep -E “line|above|bash|shell|python” test.txt

Pattern is a string, and it represents more than one string.

grep -E [options] [pattern] file.txt

Pattern is a string, and it represents more than one string.

xy|pq : matches xy or pq in a file

^xyz – matches lines starting with xyz

xyz$ - matches line ending with xyz

^$- to get empty lines (very useful in sed command

\ - To remove the special purpose of any symbol. grep -E “\^” test.txt

. – Match any one character: grep -E “t..s” file.txt it matches any characters with two characters in btw t and s.

\b – Matches empty string at the edge of a word.

grep -E “line\b” test.txt

? – preceding character is optional and matches utmost once.

\* - matches any number of times

+ - Should match atleast one or more times

\b – Matches empty string at the edge of a word.

grep -E “line\b” test.txt

Text

Description automatically generated

Questions

1. How to display from 6 to 12 lines in a file?
2. What are file identifiers for STDIN, STDOUT and STDERR?
3. How to search for a string in multiple files?
4. Display the usage of i,w,v,o,c,n,