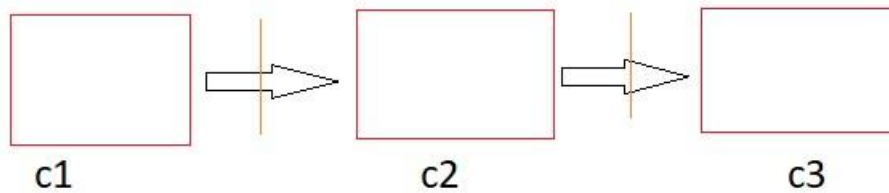# LINUX FILTER COMMANDS

A filter is a small and specialized program in Linux operating system to get the meaningful input from the user.

1. To display the content of a file in ascending order: **sort file_name**

2. To display the content of a file in descending order: **sort -r file_name**

3. To display the no of lines from top to bottom:
   head -n file_name
   ex: head -3 file_name

4. To display the no of lines from bottom to top:
   tail -n file_name
   ex: tail -4 file_name

5. To display the unique content without duplicates:
   uniq file_name

6. To count no of duplicates in the file:
   uniq -c file_name

7. To display the duplicates in the file:
   uniq -d file_name

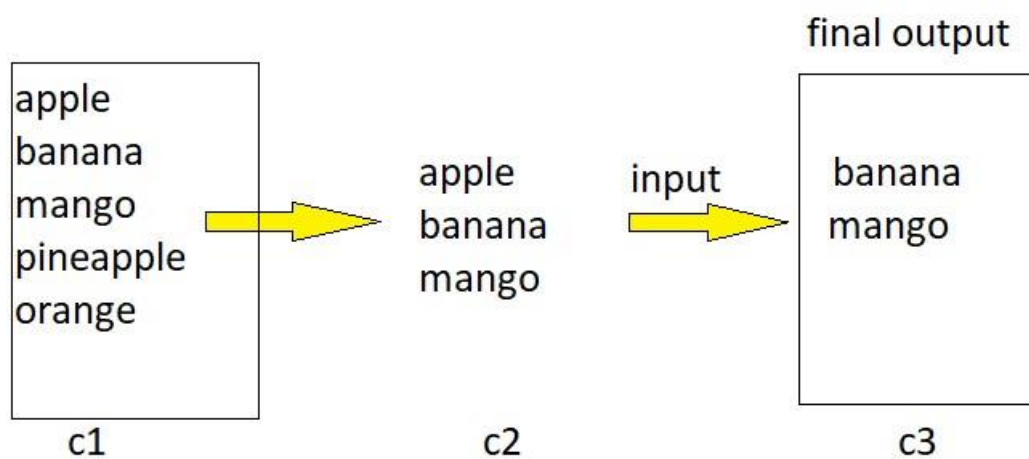8. To count the words present in the file: **wc file_name**

PIPING

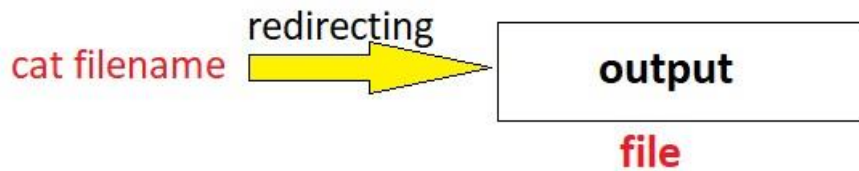Redirecting the output of a particular command as an input for next command.

c1   c2   c3

Symbol: |

Example : cat filename | head -3 |

tail -2

LINUX I/O REDIRECTION

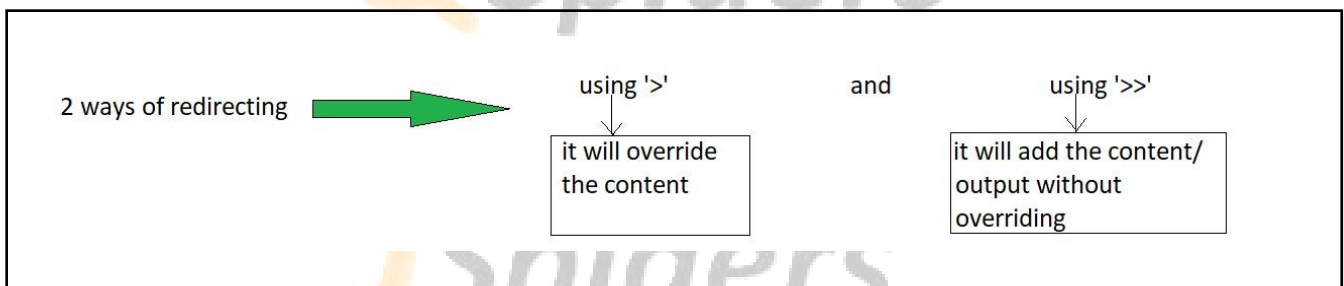Redirection is a process where we can copy the output of any command into a new file.

Types of redirection:

1.Input Redirection

2.Output Redirection

3.Error Redirection

Two ways of Redirecting

1.single bracket '>'

2.double bracket '>>'

1.Input redirection: By default commands will be executed in the input redirection mode.

syntax: command < filename

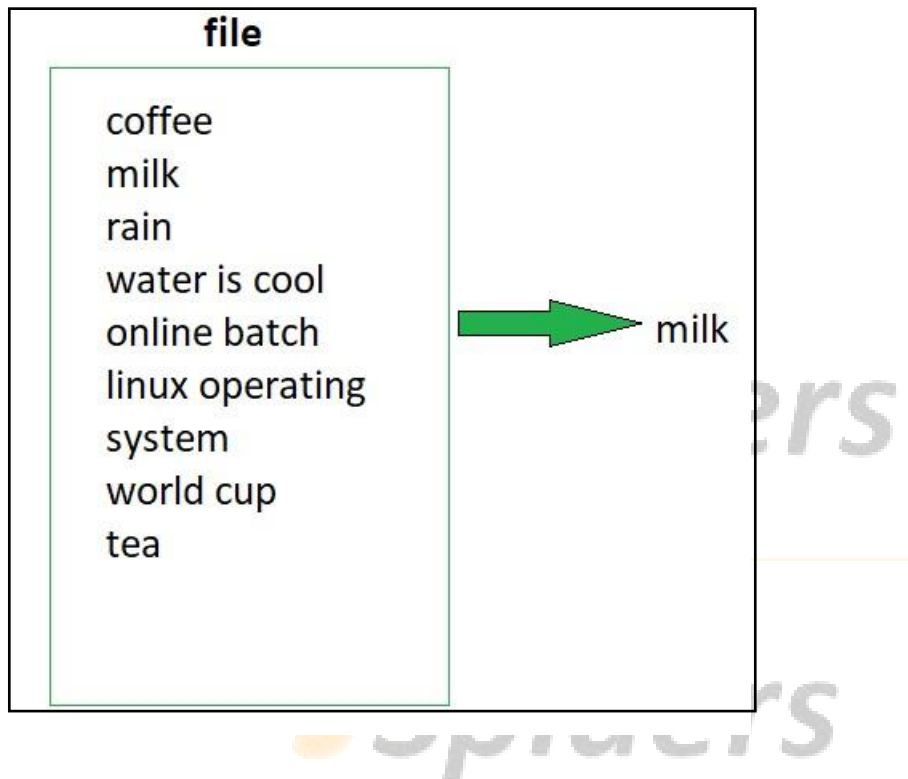**2.Output redirection:** Redirecting the output of a command to a separate file.

 syntax: command > filename   or   command >> filename

3.Error redirection: Redirecting the error of a command to a separate file

Syntax : **command &> filename**

LINUX REGEX [REGULAR EXPRESSION

Regular expressions are set of special characters that help us to search for data and for matching the pattern.

COMMANDS:

1.grep: grep is used to search for a character or matching word or pattern or string in a particular file.

syntax: grep pattern filename

-Concatenating the characters: searching for combination of 2 characters.

syntax: grep ab filename

-One or the other: If we are giving 2 characters as input, if one character present the output should be displayed.

syntax: grep -E 'a|b' filename

-match end string: searching for last word or character of a line.

 syntax: grep a$ filename

-match start of string: searching for first word of a line.

 syntax: grep ^a filename

2. sed [stream editor]: sed is a text stream editor to edit quickly and efficiently.

syntax: sed -i 's/old content/ new content/' filename

LINUX NETWORKING

Every computer is connected to some other computer through a network whether internally or externally to exchange some information. This network can be small as some computers connected in your home or office.

Maintaining a system's network is a task of System/Network administrator. Their task includes network configuration and troubleshooting.

Commands for networking and troubleshooting

1.ifconfig: Display network interfaces

2.ping: To check the connectivity

3.netstat: Display the network connection information

4.host: To convert ip address into domain name and domain name into ip address

syntax: host domain name

5.hostname: To display the network name