Assignment No.5

Simple Filters

Create a file flavors.txt with random content(minimum 20 lines)

HEAD COMMAND

Head prints the first N number of data of the given input. By default, it prints first 10 lines of each given file.To view the first N number of lines, pass the file name as an argument with -n option.

Note: When you simply pass the file name as an argument to head, it prints out the first 10 lines of the file.

EXAMPLE:

head -5 flavours.txt
Ubuntu
Debian
Redhat
Gentoo
Fedora core

It displays 5 lines from top.

TAIL COMMAND:

Tail prints the last N number of lines from given input. By default, it prints last 10 lines of each given file.

EXAMPLES

tail -4 flavours.txt
Debian
Redhat
Gentoo
Fedora core

It displays 4 lines from bottom.To print the appended lines as and when the file grows, you can use -f option to output the appended lines of file instantly. This is very useful to monitor the log files.

$ tail -f /var/log/messages

CUT COMMAND:

Cut command in UNIX is used to select sections of text from each line of files. You can use the cut command to select fields or columns from a line by specifying a delimiter or you can select a portion of text by specifying the range or characters. Basically the cut command slices a line and extracts the text.

EXAMPLE:
cat file.txt
unix or linuxos
isunix good os
islinux good os

cut –c4 file.txt
x
u
l

The above cut command prints the fourth character in each line of the file. You can print more than one character at a time by specifying the character positions.

cut –c4,6 file.txt
xo
ui
ln

To print a range of characters in a line by specifying the start and end position of the characters.

cut -c4-7 file.txt
x or
unix
linu

The cut command prints the characters from fourth position to the seventh position in each line.The -d option in cut command can be used to specify the delimiter.

cut -d' ' -f2 file.txt
or
unix
linux

This command prints the second field in each line by treating the space as delimiter. You

can print more than one field by specifying the position of the fields in a comma delimited list.

cut -d' ' -f2,3 file.txt
orlinux
unix good
linux good

PASTE COMMAND:

Paste command is one of the useful commands in unix or linux operating system. The paste command merges the lines from multiple files. The paste command sequentially writes the corresponding lines from each file separated by a TAB delimiter on the unix terminal.

SYNTAX:
paste [options] files-list

EXAMPLE:
cat file1
Unix
Linux
Windows

cat file2
Dedicated server
Virtual server

cat file3
Hosting
Machine
Operating system

paste file1 file2
Unix Dedicated server
Linux Virtual server
Windows

paste file2 file1
Dedicated server Unix
Virtual server Linux
Windows

paste -d"|" file1 file2

Unix|Dedicated server
Linux|Virtual server
Windows|

to merge the files in sequentially manner, -s option is used. The paste command reads each file in sequentially. It reads all the lines from a single file and merges all these lines into a singleline.
paste -s file1 file2
Unix Linux Windows
Dedicated server Virtual server

SORT COMMAND

Sort is a simple and very useful command which will rearrange the lines in a text file so that they are sorted, numerically and alphabetically. By default, the rules for sorting are:

- **lines starting with a number will appear before lines starting with a letter;**
- **lines starting with a letter that appears earlier in the alphabet will appear before lines starting with a letter that appears later in the alphabet;**
- **lines starting with a lowercase letter will appear before lines starting with the same letter in uppercase.**

EXAMPLE:
cat>data.txt
apples
oranges
pears
kiwis
bananas

sort data.txt
apples
bananas
kiwis
oranges
pears

Note that this command does not actually change the input file, data.txt. If you want to write the output to a new file, output.txt then,
sort data.txt > output.txt

UNIQ COMMAND

uniq command filters out adjacent, matching lines from input file. Consider a*INPUT file*, writing the filtered data to output file *OUTPUT file*.

EXAMPLES

INPUT file

This is a line.
This is a line.
This is a line.
This is also a line.
This is also a line.
This is also also a line.

uniq myfile.txt
This is a line.
This is also a line.
This is also also a line.

NL COMMAND:

nl command numbers the lines in a file.

SYNTAX:

nl filename

EXAMPLE

cat list.txt
apples
oranges
potatoes
lemons
garlic

nl list.txt

1	*apples*
2	*oranges*
3	*potatoes*
4	*lemons*
5	*garlic*

To store this result,

nl list.txt > nlist.txt

cat nlist.txt

1 *apples*

2 *oranges*

3 *potatoes*

4 *lemons*

5 *garlic*

TR COMMAND

The tr command automatically translates (substitutes, or maps) one set of characters to another.

SYNTAX:

tr OPTION SET1 [SET2]

EXAMPLE:

tr '{}' '()'<inputfile>outputfile

echo "the geek stuff" | tr -d 't'

he geek suff