Lecture 5 | Handling text files

Handling text files

- Linux offers a lot of command line tools for handling text.
- Some of those tools are:

Cat
Tac
More
Less
Head
Diff

Tail
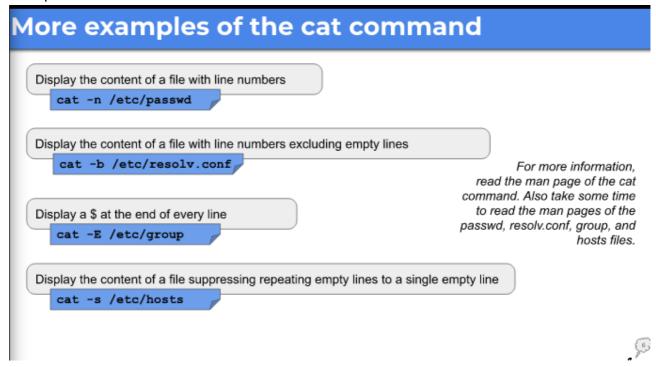Cut
Paste
Sort
Wc
Tr
Grep

Cat command

Cat

- The cat command is used for **displaying the content of a file**.
- Cat is short for **concatenate** which is the the command intended use.
- Concatenation means joining two strings together.
- Usage:
  - cat + file to display
  - cat + file 1 + file 2

```
raalberto@cis106:~$ cat food
pizza
rice
potatoes
raalberto@cis106:~$ cat food drinks
pizza
rice
potatoes
soda
water
juice
raalberto@cis106:~$
```

File to display

Content of the food file

Files to concatenate (join)

The content of both files displayed one after the other

- Examples of CAT

Tac command

More and Less

More

- The more command is a pager program used for displaying the content of a text file one page at a time.
- Usage:
  - `more + file to view`
- For getting help navigating the menu press h
- Examples of the more command:

Open a file and display guiding information in the bottom
```
more -d /var/log/syslog
```

Open a file 10 lines at a time
```
more -10 /var/log/syslog
```

For more information, read the man page of the more command

less

- The less command is another pager program that displays the content of a file 1 page at a time.
- Less is faster than more when dealing with large files since it loads 1 page at time
- Usage:
  - less + file to view
- Examples of the less command:

Open a file with line numbers
```
less -N /var/log/syslog
```

Open a file at the beginning of the first occurance of a string
```
less -p "nobody" /etc/passwd
```

Head and Tails

Head

- The head command displays the top N number of lines of a given file. By default, it prints the first 10 lines. If more than one file name is provided then data from each file is preceded by its file name.
- Usage:
  - **head + option + file**
- Examples of the head command:

Display the first 10 lines of a file
```
head /etc/passwd
```

Display the first 5 lines of a file
```
head -5 /etc/passwd
```

Tail

- The tail command displays the last N number of lines of a given file. By default, it prints the last 10 lines. If more than one file name is provided then data from each file is preceded by its file name.
- Usage:
  - **head + option + file**
- Examples of the head command:

Display the last 10 lines of a file
```
tail /etc/passwd
```

Display the last 5 lines of a file
```
tail -5 /etc/passwd
```

Sort

Examples of the sort command

Sort the file and save the output to a new file

```
sort -o usersSorted.txt users.txt
```

```
adrian@G752VL:~$ sort -o usersSorted.txt users.txt
adrian@G752VL:~$ cat usersSorted.txt
aarias          arnold          aarias@email.net
jisabella       james           jisabella@games720.com
lemma           liam            lemma_@grmail.com
nolivia         nadine          supernah@citizen.com
rgerald         ray             rgerald67@parks.com
users           name            email
wava            william         wava_1988@recreation.com
adrian@G752VL:~$ 
```

Grep

Examples of the grep

Search for a given string in a file

```
grep "IP" data.csv
```

Search for a given string in a file with case insensitivity

```
grep -i "ip" data.csv
```

Search for a given string in multiple files

```
grep "user" file1 file2
```

Search for a string and show line numbers.

```
grep -n "License" /usr/share/doc/bash/README
```