OPERATING SYSTEM

Linux Basic Commands

wc

This command counts the number of newlines, words, and characters in each given files.

- **Example:**

```
~$ wc OS/file1
10 10 87 OS/file1
~$ wc OS/file1 OS/file2
10 10 87 OS/file1
11 92 546 OS/file2
21 102 633 total
```

wc

Example:

- count the number of newlines

```
~$ wc -l OS/file1
```

- count the number of words

```
~$ wc -w OS/file1
```

- count the number of characters
- `~$ wc -m OS/file1`

Find Files by Name

. The find command is used to search and locate the list of files and directories based on conditions you specify for files that match the arguments

- Example :

~$ find ~ -name file1

- Search location first characters of file

~$ find ~ -name ‘fil*’

grep

- This command finds words in files.

■ **Example:**

- Find word ‘and’ in file1:

```
~$ grep and OS/file1
```

- Find word ‘and’ in file1 and file2:

```
~$ grep and OS/file1 OS/file2
```

- Find word ‘and’ in all files of OS directory:

```
~$ grep and OS/*
```

grep

- Find word that start with ‘an*’ in file1:

```
~$ grep ‘an*’ OS/file1
```

- Find word that you know the first character in file1 :

```
~$ grep ‘^s’ OS/file1
```

- Find word that ends with ‘es’ in line in file1:

```
~$ grep ‘es$’ OS/file1
```

sort

- This command sorts lines of text files.

- **Example:**

```
~$ sort OS/file1
```

- Sort multiple files:

```
~$ sort OS/file1 OS/file2
```

- Sort in a reverse order, and write the result to specific file:

```
~$ sort -r OS/file1 > OS/file3
```

cut -c

- This command prints the selected characters of each line from each file.
- ■**Example:**
- `~$ cut -c-3 OS/file1`
- `~$ cut -c-4 OS/file1 OS/file2`
- `~$ cut -c-5 OS/*`

cat with |tr

- This can be used to replace specific string in files by another string and print the output to screen.
- The content of file will not change

■ **Example:**

- `~$ cat OS/file1 |tr 'and' '***'`
- `~$ cat OS/file1 OS/file2 |tr 'a' '*'`
- `~$ ~$ cat OS/* |tr 'and' '*'`

cat with |tr

- **Example:**
- Convert upper case character to lower:

```
~$ cat OS/file1 |tr 'A' 'a'
```

- Convert lower case character to upper:

```
~$ cat OS/file1 |tr 'a' 'A'
```

- Convert specific range of characters:

```
~$ cat OS/file1 |tr 'a-d' 'A-D'
```

&&

- This can be used to perform many commands at the same time.
- ■**Example:**
- `~$ cp file1 /tmp && mv file2 /tmp`
- `~$ ls && mkdir OS && date`