## Pipe symbol, Text editors and File permissions

## Pipe Symbol:

      * Can run more than 1 command in linux.

     → Let's continue with last class "Linux" instance.

     → clear everything before we starting today.

## Putty:

[root@ip-172-31-52-80 ~]# ls

[root@ip-172-31-52-80 ~]# touch file1 file2 file3 file4

[root@ip-172-31-52-80 ~]# ls -l

    total 0

   -rw-r--r--.  1  root  root  0  Aug 22  03:50  file1
   -rw-r--r--.  1  root  root  0  Aug 22  03:50  file2
   -rw-r--r--.  1  root  root  0  Aug 22  03:50  file3
   -rw-r--r--.  1  root  root  0  Aug 22  03:50  file4

[root@ip-172-31-52-80 ~]# cat > file1
hello
world

    [∴ CTRL + D = exit]

[root@ip-172-31-52-80 ~]# grep h file1

hello

```
[root@ip-172-31-52-80 ~]# ls -l | grep file3
```

-rw-r--r--. 1 root root 0 Aug 22 03:50 file3

```
[root@ip-172-31-52-80 ~]# cat file1
```

hello
world

```
[root@ip-172-31-52-80 ~]# head -1 file1
```

hello

```
[root@ip-172-31-52-80 ~]# cat file1 | head -1
```

hello

```
[root@ip-172-31-52-80 ~]# cat file1
```

hello
world

```
[root@ip-172-31-52-80 ~]# cat >> file1
```

apple

orange

banana

[∵ CTRL + D = exit]

```
[root@ip-172-31-52-80 ~]# cat file1
```

hello

world

apple

orange

banana

```
[root@ip-172-31-52-80 ~]# sort file1
```

apple

banana

hello

orange

world

```
[root@ip-172-31-52-80 ~]# head -2 fil61

hello
world

[root@ip-172-31-52-80 ~]# sort fil61 | head -2

apple
banana

[root@ip-172-31-52-80 ~]#
```

[∴ Piple Symbol used]

[∴ Pipesymbol over]

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→ Now what we gonna see is text editors.

## Text editors in linux :

* nana  -  compatible for small changes.

* vi or vim - compared to "ubuntu", it supports in 'linux' very much.

* gedit  -  good for "ubunta".

* Shell

Putty:

```
[root@ip-172-31-52-80 ~]# ls
fil61   fil62   fil63   fil64

[root@ip-172-31-52-80 ~]# nano   linux
```

hello world

[∴ opening nano editor]

[∴ CTRL + X = exit first step]
[∴ Y and Enter = exit with save changes]

[root@ip-172-31-52-80 ~]# nano linux

```
hello world

hi
```

[∴ CTRL + x]
[∴ No + enter] exit without changes

[root@ip-172-31-52-80 ~]#

[∴ why we are using editors like "nano" insted of "cat" command
   is

   * In "cat" we have to first create the file using "tach" cmd.
   * Then have to go inside the file using "cat > filename"
   * Then edit
   * After sometime, if we want to edit in cat if we give "cat >> filename"
   it wont show the previous contents, which is a drawback.
   * we can't go backwards, which is also a drawback. ]

   [∴ "nano" over ]

   [∴ As we know about "vi", I am not going in that ]

[root@ip-172-31-52-80 ~]# gedit hello

- bash: gedit: command not found

[root@ip-172-31-52-80 ~]# yum install gedit
...
No match for argument : gedit

Error: unable to find a match : gedit

[∴ "gedit" won't work in "linux"]

[∴ "gedit" works in "ubuntu", "gedit" is moreover like "nano"]

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## shell:

    * linux - OS

    * commands

    * scripting language - shell scripting

## Putty:

     :
     cont

```
[root@ip-172-31-52-80 ~]# echo "hello"
hello
[root@ip-172-31-52-80 ~]# echo hello
hello
[root@ip-172-31-52-80 ~]# vi hello
```

```
echo "hello world welcome to linux class"
~
~
:wq!
```

```
[root@ip-172-31-52-80 ~]# vi hello.sh
```

```
echo "welcome to linux class"
~
~
:wq!
```

```
[root@ip-172-31-52-80 ~]# cat hello
echo "hello world welcome to linux class"

[root@ip-172-31-52-80 ~]# chmod 777 hello.sh

[root@ip-172-31-52-80 ~]# ./hello.sh
welcome to linux class

[root@ip-172-31-52-80 ~]# echo welcome
welcome

[root@ip-172-31-52-80 ~]# ls -l file1
-rw-r--r--.  1  root  root   32  Aug  22  03:54  file1

[root@ip-172-31-52-80 ~]# ls -l
total 24

-rw-r--r--.   1  root  root    ..  banana
-rw-r--r--.   1  root  root    ..  file1
-rw-r--r--.   1  root  root    ..  file2
-rw-r--r--.   1  root  root    ..  file3
-rw-r--r--.   1  root  root    ..  file4
-rw-r--r--.   1  root  root    ..  hello
-rwxrwxrwx    1  root  root    ..  hello.sh
-rw-r--r--.   1  root  root    ..  linux
-rw-r--r--.   1  root  root    ..  mango

[root@ip-172-31-52-80 ~]# chmod 744 mango
[root@ip-172-31-52-80 ~]# ls -l mango
-rwxr--r--.  1  root  root   3  Aug   ..  mango

[root@ip-172-31-52-80 ~]# chmod 700 mango
[root@ip-172-31-52-80 ~]# ls -l mango
-rwx------.  1  root  root   ..  mango

[root@ip-172-31-52-80 ~]# chmod 400 mango
[root@ip-172-31-52-80 ~]# ls -l mango
-r--------.  1  root  root   ..  mango
```

```
[root@ip-172-31-52-80 ~]# chmod 777 mango

[root@ip-172-31-52-80 ~]# ls -l / mango

-rwxrwxrwx.  1  root  root   ..  mango

[root@ip-172-31-52-80 ~]# vi new.sh
```

```
echo "hi"
~
:wq!
```

```
[root@ip-172-31-52-80 ~]# ls -l / new.sh

-rw-r--r--.  1  root  root   ..  new.sh  → white color
```

```
[root@ip-172-31-52-80 ~]# ./new.sh

-bash: ./new.sh  permision denied
```

[∴ for a "shell" file
we have to give
RWE aless for All three]
which is 777]

```
[root@ip-172-31-52-80 ~]# chmod 777 new.sh

[root@ip-172-31-52-80 ~]# ls -l / new.sh

-rwxrwxrwx.  1  root  root   ..  new.sh
                                  ↓
                              green color
```

```
[root@ip-172-31-52-80 ~]# ./new.sh
  hi
```

[∴ "shell" file working]

---

## file permissions:

head (4) (r)

write 2 (w)

exeaule 1 (e)

4+2+1 = 7 (all)        0 - (null)

7-3 = 4 (R)            1 - (e)

7-1 = 6 (rw)           2 - (w)

Usrs  grops  other

-rw- r-- r--

-rwx r-- r--      744

-rwx --- ---

→ Delete every files and diratoria before proceed.

<u>Putty:</u>

cont

[root@ip-172-31-86-29 ~]# touch hello

[root@ip-172-31-86-29 ~]# ls

hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

-rw-r--r--. 1 root root .. hello

[root@ip-172-31-86-29 ~]# chmod u-w hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

-r--r--r--. 1 root root .. hello

[root@ip-172-31-86-29 ~]# chmod u-r hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

----r--r--. 1 root root ... hello

[root@ip-172-31-86-29 ~]# chmod g-r hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

-------r--. 1 root root .. hello

[root@ip-172-31-86-29 ~]# chmod o-r hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

----------. 1 root root -- hello

[root@ip-172-31-86-29 ~]# chmod u+rwx hello

[root@ip-172-31-86-29 ~]# ls -l

total 0

-rwx------. 1 root root 0 .. hello
                                 ↓
                             green color

[ .: Green color, becaise
it has 'rwx' in the
permations ]

```
[root@ip-172-31-86-29 ~]# chmod g+r hello
[root@ip-172-31-86-29 ~]# ls -l

total 0
-rwxr-----. 1 root root .. hello

[root@ip-172-31-86-29 ~]# chmod u+rwx,g+r hello
[root@ip-172-31-86-29 ~]# ls -l

total 0
-rwxr-----. 1 root root .. hello

[root@ip-172-31-86-29 ~]# chmod u+rwx,g+rwx,o+rwx hello

[root@ip-172-31-86-29 ~]# ls -l

total 0
-rwxrwxrwx. 1 root root .. hello

[root@ip-172-31-86-29 ~]#
```

[∴ Giving "users", "groups", "others", all three permissions "rwx"]

[∴ File permissions over]