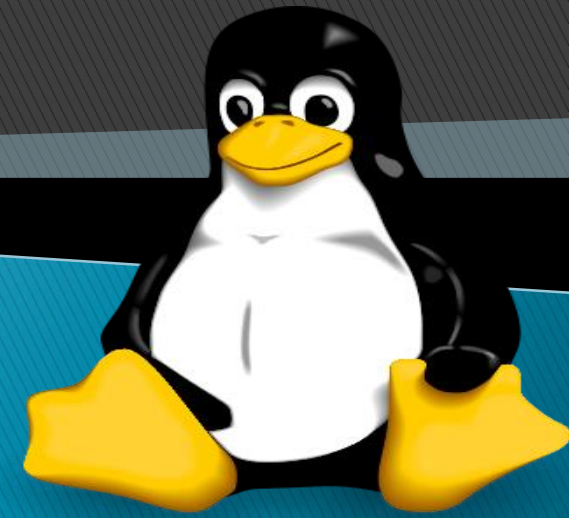


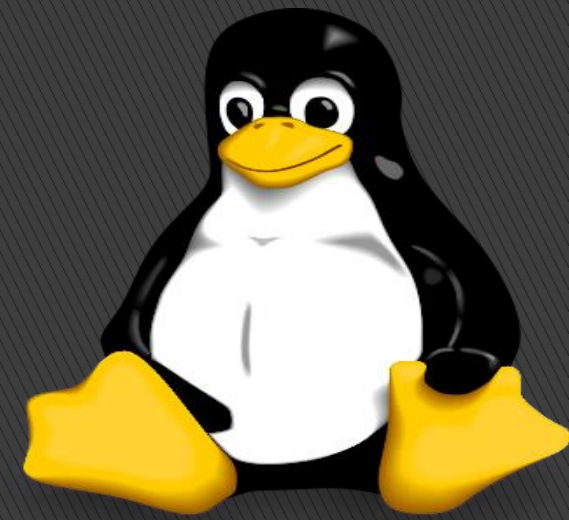


# Linux File System Permission



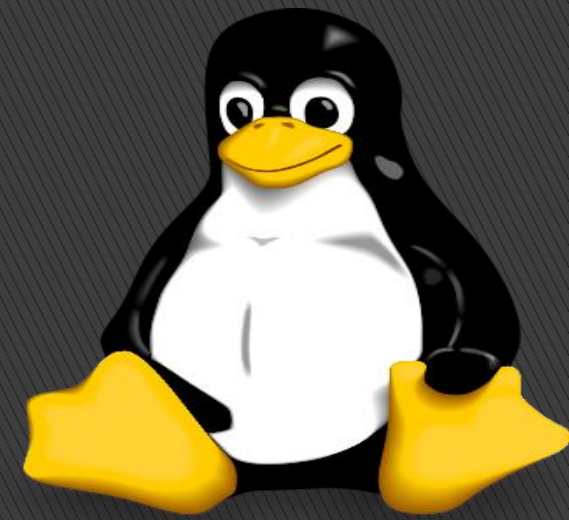
# Linux Permission

Access to any file or directory in Linux are controlled by file permission.



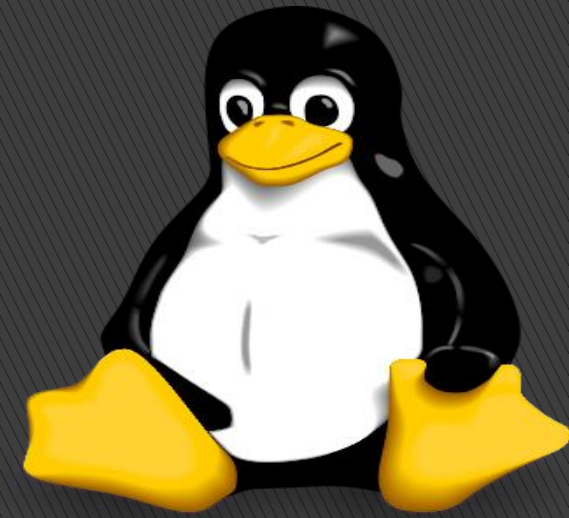
# Type of File Permission

1. Basic Permission
2. Special Permission
3. Access Control List (ACL) Permission



# Basic Permission

Linux basic file permission is very simple and flexible to apply.



# For Check File Permission

```
#ls -l /notes.txt
```

```
-rw-r--r--. 1 root root 0 Jan 4 14:59 /notes.txt
```

Permission

Link

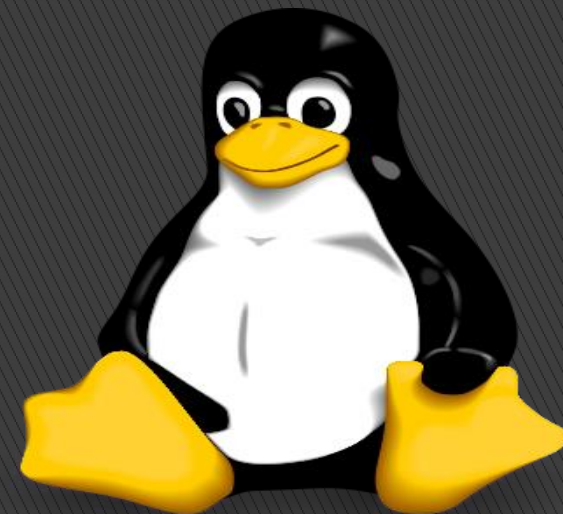
Owner

Group owner

Size of file

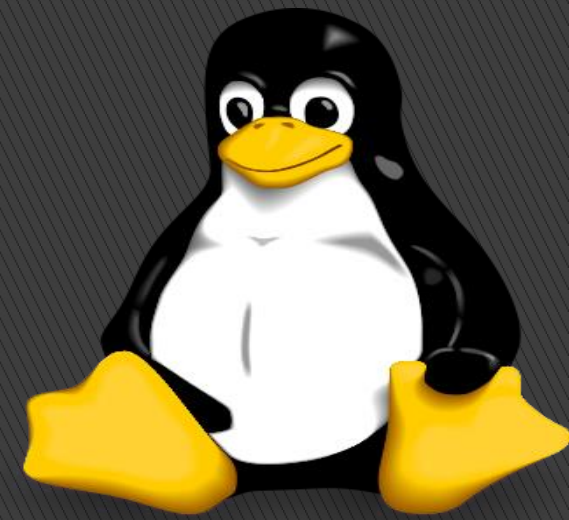
Date & time of file creation

Name of file



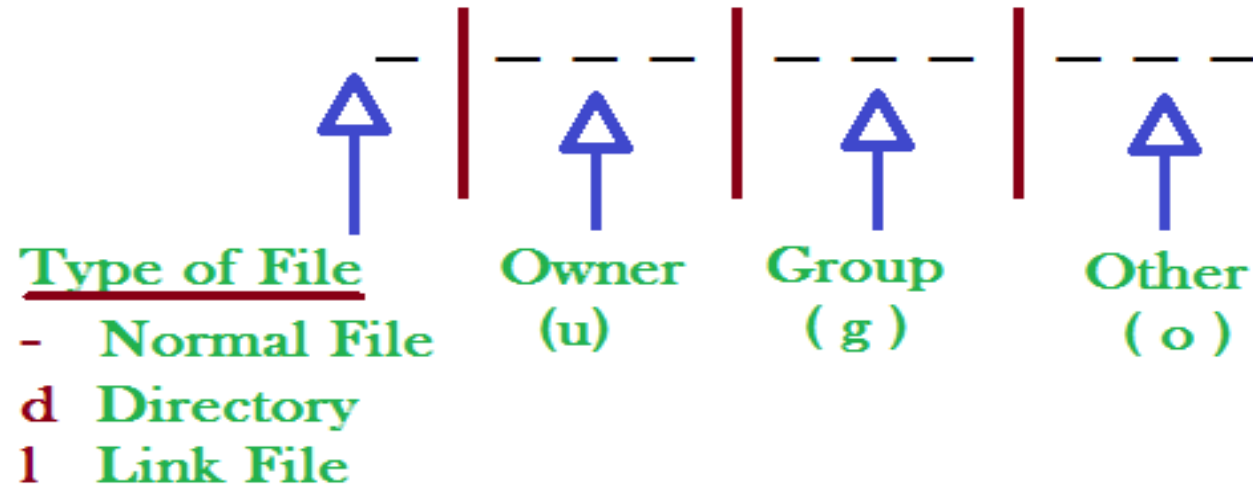
# For Check Directory Permission

```
#ls -ld /india
```

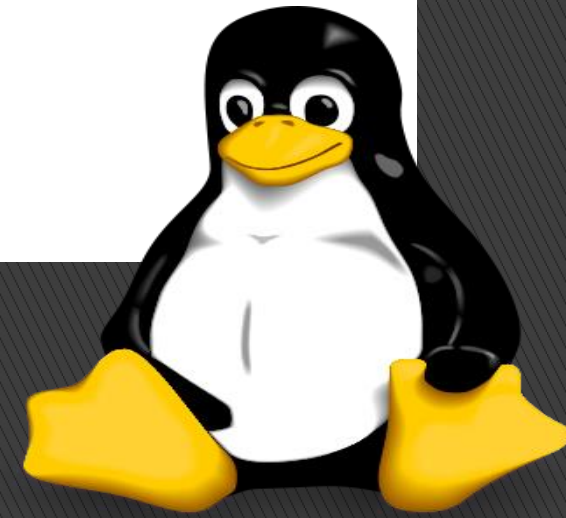




# Permission in Details



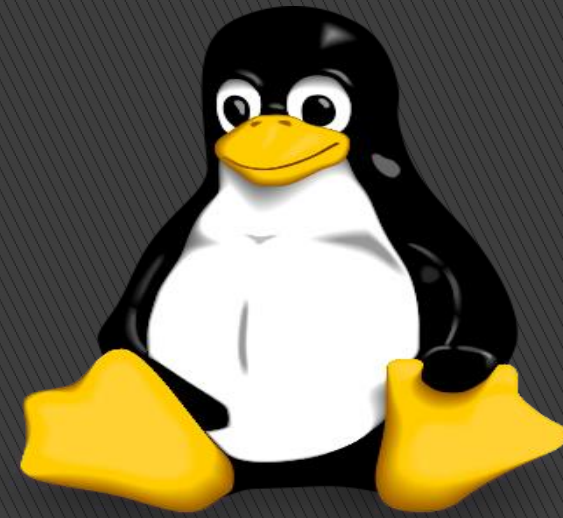
r read  
w write  
x execute  
- denied



# Permission Group

There are three permissions groups:

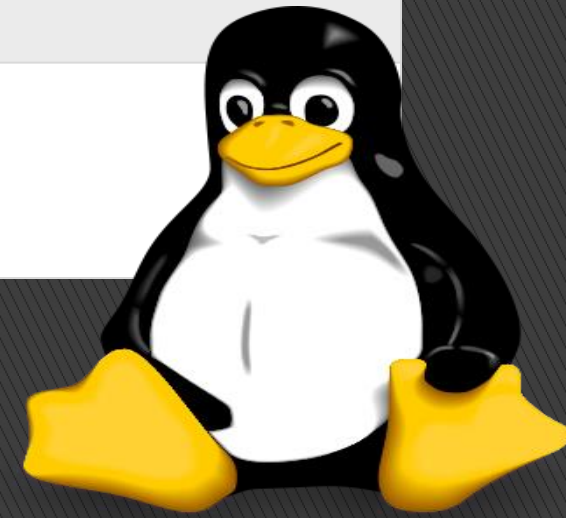
- ▶ Owner
- ▶ Group
- ▶ Other





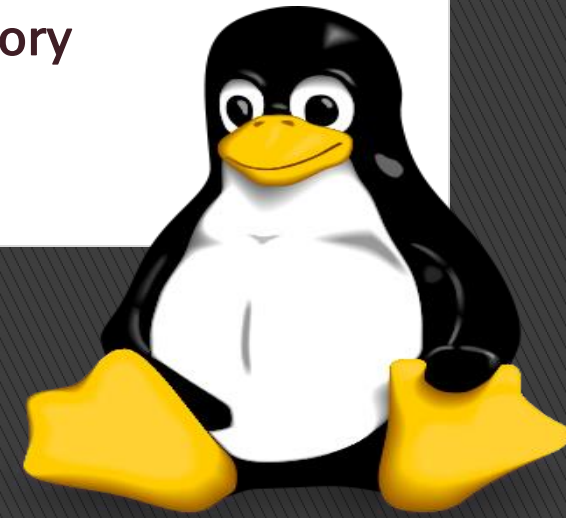
# Describe the permission groups

Permission	Description
Owner (u)	Permissions used for the owner of the file
Group (g)	Permissions used by members of the group
Other (o)	Permissions used by all other users



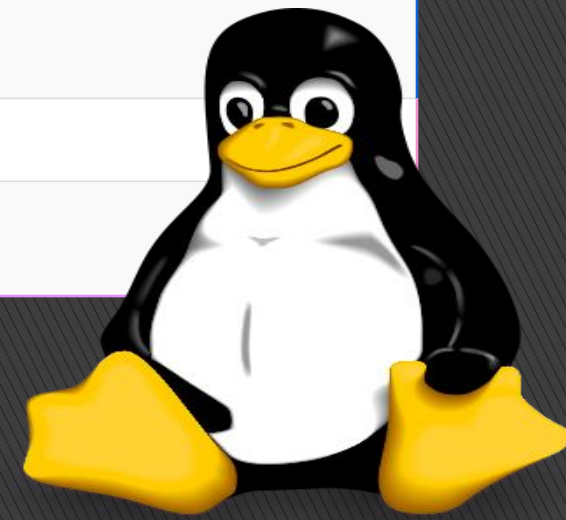
# Permission Set

Permission	Access for a file	Access for a directory
Read (r)	display file contents and copy the file.	View contents of directory
Write (w)	modify the file contents.	modify the contents of a directory.
Execute (x)	execute the file if it is an executable.	Allow use of cd command to access the directory



# Permission with numeric & symbol

Number	Permission Type	Symbol
0	No Permission	---
1	Execute	--x
2	Write	-w-
3	Execute + Write	-wx
4	Read	r--
5	Read + Execute	r-x
6	Read + Write	rw-
7	Read + Write + Execute	rwx



# For Change Permission

For add read permission to owner

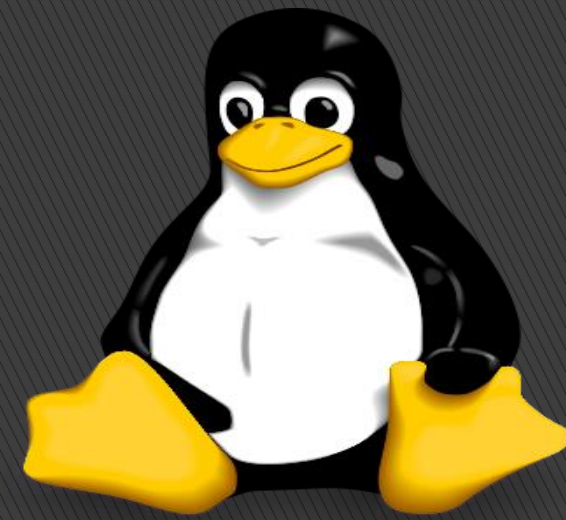
```
#chmod          u+r          /notes.txt
```

For add read write permission to group

```
#chmod          g+rw         /notes.txt
```

For remove read permission to others

```
#chmod          o-r          /notes.txt
```



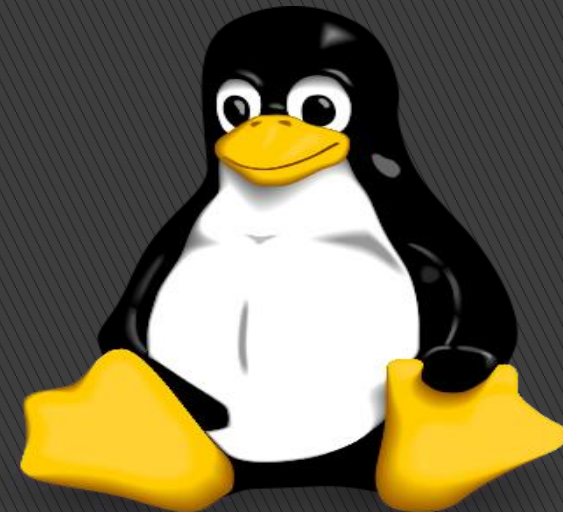
# For Change Ownership

## Syntax:

#chown      <user name>      <file/directory name>

eg.

#chown                  ajay                  /notes.txt



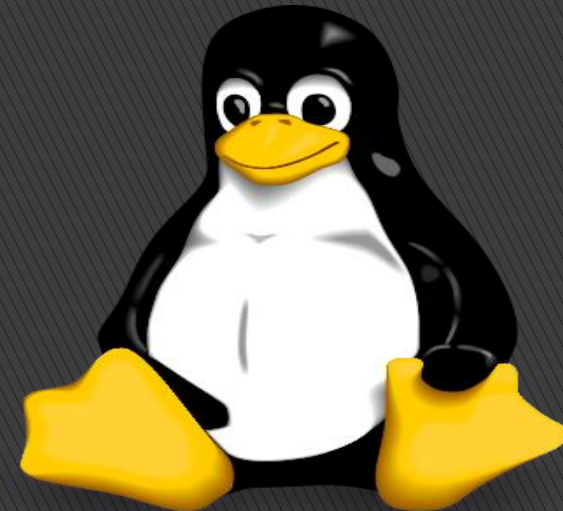
# For Change Group Ownership

## Syntax:

#chgrp      <group name>      <file/directory name>

## eg.

#chgrp                  ibmgrp                  /notes.txt





# Set Permission with numeric value

r (read) = 4

w (write) = 2

x (execute) = 1

For set permission with numeric value

```
#chmod 751 /india
```

