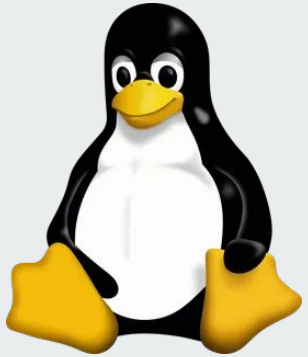
Introduction to Linux



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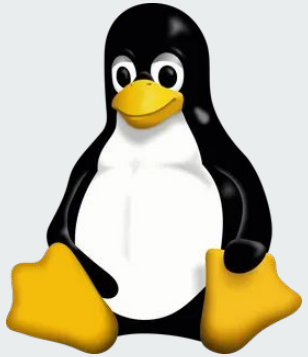
Jan, 2024

Basic Linux Commands



1. ls
2. cd
3. pwd
4. mkdir
5. rmdir
6. cp
7. rm
8. touch
9. mv

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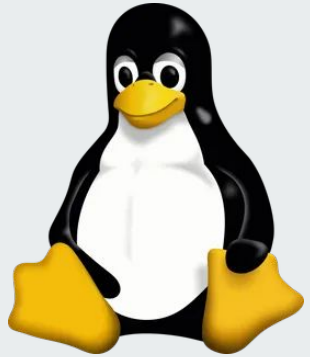
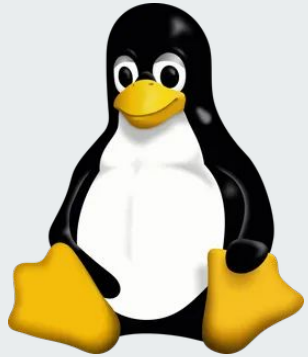
Basic Linux Commands



1. **ls**
   Command: ls
   Purpose: Lists files and directories in the current directory.
   Eg: ls , ls -l, ls -a, ls - - almost-all, ls -l *.pdf

2. **cd**
   Command: cd
   Purpose: Changes the current working directory.
   Eg: (cd ..), (cd./Pictures/), (cd../Pictures/)

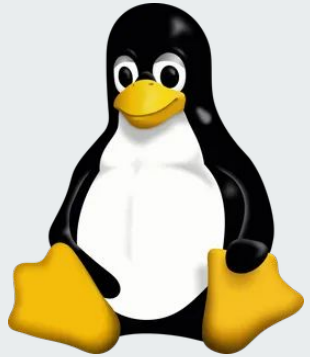
Basic Linux Commands



3. **pwd**
   Command: pwd
   Purpose: Displays the current working directory.
   Eg: pwd

4. **mkdir**
   Command: mkdir
   Purpose: Creates a new directory.
   Eg: mkdir folder_name

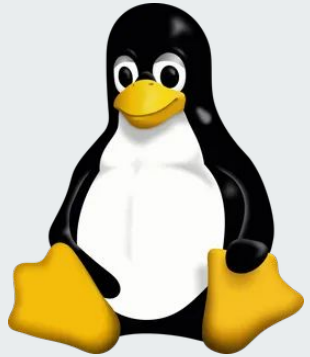
Basic Linux Commands



5. **rmdir**
   Command: rmdir
   Purpose: Removes an empty directory.
   Example: rmdir Empty_folder_name

6. **cp**
   Command: cp
   Purpose: Copies files or directories.
   Example: cp file.txt /home/destination

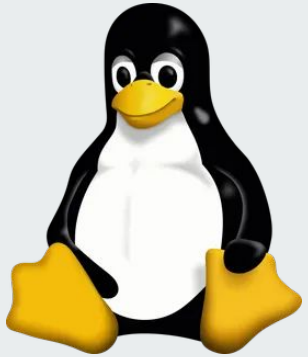
Basic Linux Commands



7. **rm**
   Command: rm
   Purpose: Removes files or directories
   Example: rm file_name , rm * , rm -r dir_name

8. **touch**
   Command: touch
   Purpose: Create file/ files.
   Example: touch file or touch file1 file2….

Basic Linux Commands



9 **mv**

Command: mv
Purpose: move or rename files
Example: mv oldname newname , mv source destination

File Permissions

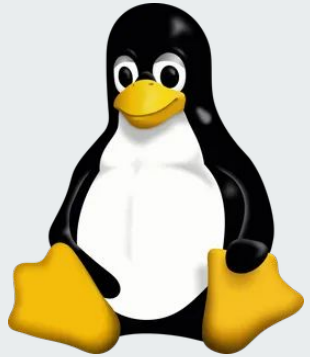
Permission Characters:

- Each set of three characters consists of r (read), w (write), and x (execute) permissions.
- If the permission is granted, the corresponding character is present; if not, [illegible] used.

File Type and Permissions:

- The first character indicates the file type. Common types include - for a regular file, d for a directory, and l for a symbolic link.
- The next nine characters represent the file permissions. They are divided into three sets of three:
    - The first set represents the owner's (user's) permissions.
    - The second set represents the group's permissions.
    - The third set represents others' (everyone else's) permissions.

File Permissions

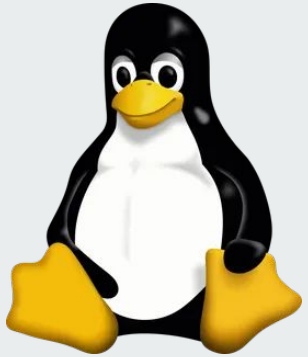


Concept of Owner , group and world:

Owner:

- The owner of a file or directory is the user who created or owns it.
- The owner has the most control over the file, with the ability to read, write, and execute it.
- The owner can also change the file's permissions, change its owner, and modify its group.

File Permissions



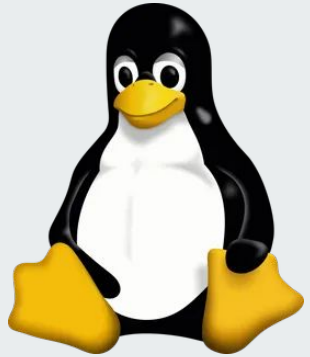
Concept of Owner , group and world:

Group:

- A file or directory can be assigned a group, and members of that group are granted certain permissions based on the group settings.
- Every user in Linux belongs to one or more groups.

Create group : sudo groupadd group_name
Add user to group: sudo usermod -aG group_name username
Check which groups a user belongs to : groups username

File Permissions



Concept of Owner , group and world:

World(others):

- In Linux, the term "world" is often used in the context of file permissions to refer to everyone else who is not the owner of a file or a member of the group associated with that file.
- The "world" permissions are the permissions that apply to all users who are not the owner or part of the group.