

Useful Commands in Linux

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Contents

- Linux System & Commands
- Linux Files & Directories
- File Permissions and Ownerships
- Process Management in Linux
- Text Processing in Linux
- Memory Management
- Networking in Linux

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Basic Commands to Know Your System

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Linux Commands



1

Know about your User and System

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Linux Commands



1

Know about your User and System

How to check the user ?
Which user is logged in ?



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Linux Commands



1

Know about your User and System

\$ whoami

How to check the user ?
Which user is logged in ?



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Linux Commands



1

Know about your User and System



\$ whoami

master@localhost:~

File Edit View Search Terminal Help

```
[master@localhost ~]$ whoami  
master  
[master@localhost ~]$ ^C  
[master@localhost ~]$
```

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Linux Commands



1

Know about your User and System



\$ whoami

```
master@localhost:~  
File Edit View Search Terminal Help  
[master@localhost ~]$ whoami  
master  
[master@localhost ~]$ ^C  
[master@localhost ~]$
```

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Linux Commands



1

Know about your User and System

Want to know about
system/OS ?



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Linux Commands



1

Know about your User and System

\$ uname

Want to know about
system/OS ?



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Linux Commands



1

Know about your User and System



\$ uname

master@localhost:~

File Edit View Search Terminal Help

```
[master@localhost ~]$ uname  
Linux  
[master@localhost ~]$ █
```

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Linux Commands



1

Know about your User and System



```
$ uname -a
```

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Linux Commands



1

Know about your User and System



```
$ uname -a
```



master@localhost:~

File Edit View Search Terminal Help

```
[master@localhost ~]$ uname -a
Linux localhost.localdomain 3.10.0-1160.105.1.el7.x86_64 #1 SMP Thu Dec 7 15:39:45 UTC 2023 x86_64 x86_64 x86_64 GNU/Linux
[master@localhost ~]$ █
```

Linux Commands



1

Know about your User and System

\$ uname -a



```
master@localhost:~  
File Edit View Search Terminal Help  
[master@localhost ~]$ uname -a  
Linux localhost.localdomain 3.10.0-1160.105.1.el7.x86_64 #1 SMP Thu D  
ec 7 15:39:45 UTC 2023 x86_64 x86_64 x86_64 GNU/Linux  
[master@localhost ~]$
```

Linux Commands



1

Know about your User and System

Want to know about CPU ?



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Linux Commands



1

Know about your User and System

\$ lscpu

Want to know about CPU ?



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Linux Commands



1

Know about your User and System

\$ lscpu



```
master@localhost:~
```

File	Edit	View	Search	Terminal	Help
[master@localhost ~]\$ lscpu					
Architecture:	x86_64				
CPU op-mode(s):	32-bit, 64-bit				
Byte Order:	Little Endian				
CPU(s):	1				
On-line CPU(s) list:	0				
Thread(s) per core:	1				
Core(s) per socket:	1				
Socket(s):	1				
NUMA node(s):	1				
Vendor ID:	GenuineIntel				
CPU family:	6				
Model:	140				
Model name:	11th Gen Intel(R) Core(TM) i5-1135G7 @ 2.40GHz				
Stepping:	1				
CPU MHz:	2419.207				
BogoMIPS:	4838.41				
Hypervisor vendor:	VMware				

Linux Commands



1

Know about your User and System

\$ lscpu



```
master@localhost:~
```

File Edit View Search Terminal Help	
[master@localhost ~]\$ lscpu	x86_64
Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Byte Order:	Little Endian
CPU(s):	1
On-line CPU(s) list:	0
Thread(s) per core:	1
Core(s) per socket:	1
Socket(s):	1
NUMA node(s):	1
Vendor ID:	GenuineIntel
CPU family:	6
Model:	140
Model name:	11th Gen Intel(R) Core(TM) i5-1135G7 @ 2.40GHz
Stepping:	1
CPU MHz:	2419.207
BogoMIPS:	4838.41
Hypervisor vendor:	VMware

Linux Commands



1

Know about your User and System

Want to know about
Memory space on the
system ?



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Linux Commands



1

Know about your User and System

\$ free

Want to know about
Memory space on the
system ?



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Linux Commands



1

Know about your User and System

\$ free

```
master@localhost:~/TestDir
File Edit View Search Terminal Help
[master@localhost TestDir]$ free
              total        used        free      shared  buff/cache   available
Mem:       3861044     1170740     910584        63084    1779720     2347100
Swap:      2098172          0     2098172
[master@localhost TestDir]$
```

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Linux Commands



1

Know about your User and System



\$ free -h

```
master@localhost:~/TestDir
File Edit View Search Terminal Help
[master@localhost TestDir]$ free -h
              total        used        free      shared  buff/cache   available
Mem:       3.7G       1.1G      888M        61M       1.7G      2.2G
Swap:      2.0G          0B      2.0G
[master@localhost TestDir]$
```

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Linux Files and Directories Management Commands

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Linux Files & Directories



2

File and Directory Management Commands

These commands deal with file and directory **operations**, such as **creating**, **copying**, **moving**, and **deleting** files or directories.

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Linux Files & Directories



2

File and Directory Management Commands

File &
Directories

- In Linux, a **file** is a **collection of data** that is stored on a disk or in memory.
 - Text files, Binary Files, Multimedia files etc.
- A **directory** is a special file that contains references to other files and directories.
 - It's like a folder that organizes files into a hierarchy.

Linux Files & Directories



2

File and Directory Management Commands

What is my current
working Directory ?



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Linux Files & Directories



2

File and Directory Management Commands

\$ pwd

What is my current
working Directory ?



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Linux Files & Directories



2

File and Directory Management Commands



\$ pwd

```
master@localhost:~  
File Edit View Search Terminal Help  
[master@localhost ~]$ pwd  
/home/master  
[master@localhost ~]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands

How to see the contents in
current directory ?



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Linux Files & Directories



2

File and Directory Management Commands

\$ ls

How to see the contents in
current directory ?



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Linux Files & Directories



2

File and Directory Management Commands



\$ ls

```
master@localhost:~  
File Edit View Search Terminal Help  
[master@localhost ~]$ pwd  
/home/master  
[master@localhost ~]$ ls  
Anaconda  Desktop  Downloads  Music  Public  Videos  
anaconda3  Documents  labmonitor  Pictures  Templates  
[master@localhost ~]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands

\$ ls -la



```
master@localhost:~  
File Edit View Search Terminal Help  
[master@localhost ~]$ ls -la  
total 60  
drwx----- 22 master master 4096 Sep 23 10:06 .  
drwxr-xr-x 4 root root 35 Dec 15 2023 ..  
drwxrwxr-x 2 master master 47 Dec 14 2023 Anaconda  
drwxrwxr-x 28 master master 4096 Dec 14 2023 anaconda3  
-rw----- 1 master master 7861 Dec 17 2023 .bash_history  
-rw-r--r-- 1 master master 18 Mar 31 2020 .bash_logout  
-rw-r--r-- 1 master master 193 Mar 31 2020 .bash_profile  
-rw-r--r-- 1 master master 710 Dec 14 2023 .bashrc  
drwx----- 20 master master 4096 Dec 15 2023 .cache  
drwxrwxr-x 2 master master 30 Dec 14 2023 .conda  
drwxr-xr-x 18 master master 4096 Dec 15 2023 .config  
drwx----- 3 master master 25 Jul 6 2023 .dbus  
drwxr-xr-x 3 master master 27 Sep 27 2023 Desktop  
drwxr-xr-x 2 master master 6 Jul 6 2023 Documents  
drwxr-xr-x 2 master master 141 Dec 17 2023 Downloads  
-rw----- 1 master master 16 Jul 6 2023 .esd auth
```

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Linux Files & Directories



2

File and Directory Management Commands

How to change from one dir
to another dir ?



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Linux Files & Directories



2

File and Directory Management Commands

\$ cd

How to change from one dir
to another dir ?



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Linux Files & Directories



2

File and Directory Management Commands



\$ cd

```
master@localhost:~/Desktop
File Edit View Search Terminal Help
[master@localhost ~]$ pwd
/home/master
[master@localhost ~]$ ls
Anaconda  Desktop  Downloads  Music  Public  Videos
anaconda3  Documents  labmonitor  Pictures  Templates
[master@localhost ~]$ cd Desktop
[master@localhost Desktop]$ pwd
/home/master/Desktop
[master@localhost Desktop]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands



\$ cd

master@localhost:~/Desktop/simpleproject

File Edit View Search Terminal Help

```
[master@localhost simpleproject]$ pwd  
/home/master/Desktop/simpleproject  
[master@localhost simpleproject]$ cd  
[master@localhost ~]$ pwd  
/home/master  
[master@localhost ~]$ cd -  
/home/master/Desktop/simpleproject  
[master@localhost simpleproject]$ pwd  
/home/master/Desktop/simpleproject  
[master@localhost simpleproject]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands



\$ cd ..

master@localhost:~/Desktop

File Edit View Search Terminal Help

```
[master@localhost simpleproject]$ pwd  
/home/master/Desktop/simpleproject  
[master@localhost simpleproject]$ cd ..  
[master@localhost Desktop]$ pwd  
/home/master/Desktop  
[master@localhost Desktop]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands

How to create a new
Directory ?



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Linux Files & Directories



2

File and Directory Management Commands

\$ mkdir

How to create a new
Directory ?



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Linux Files & Directories



2

File and Directory Management Commands



\$ mkdir

```
master@localhost:~/Desktop/TestDir
File Edit View Search Terminal Help
[master@localhost Desktop]$ pwd
/home/master/Desktop
[master@localhost Desktop]$ ls
simpleproject
[master@localhost Desktop]$ mkdir TestDir
[master@localhost Desktop]$ ls
simpleproject TestDir
[master@localhost Desktop]$ cd TestDir
[master@localhost TestDir]$ pwd
/home/master/Desktop/TestDir
[master@localhost TestDir]$ █
```

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Linux Files & Directories



2

File and Directory Management Commands

How to delete an empty
Directory ?



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Linux Files & Directories



2

File and Directory Management Commands

\$ rmdir

How to delete an empty
Directory ?



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Linux Files & Directories



2

File and Directory Management Commands



\$ rmdir

master@localhost:~/Desktop

File Edit View Search Terminal Help

```
[master@localhost Desktop]$ ls
```

```
simpleproject TestDir
```

```
[master@localhost Desktop]$ rmdir TestDir
```

```
[master@localhost Desktop]$ ls
```

```
simpleproject
```

```
[master@localhost Desktop]$
```

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Linux Files & Directories



2

File and Directory Management Commands

How to rename a Directory
?



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Linux Files & Directories



2

File and Directory Management Commands

\$ mv

How to rename a Directory

?



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Linux Files & Directories



2

File and Directory Management Commands



\$ mv

master@localhost:~/Desktop

File Edit View Search Terminal Help

[master@localhost Desktop]\$ ls

simpleproject

[master@localhost Desktop]\$ mkdir TestDir1

[master@localhost Desktop]\$ ls

simpleproject TestDir1

[master@localhost Desktop]\$ mv TestDir1 TestDir2

[master@localhost Desktop]\$ ls

simpleproject TestDir2

[master@localhost Desktop]\$ █

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