

# **LINUX Assignment 1**

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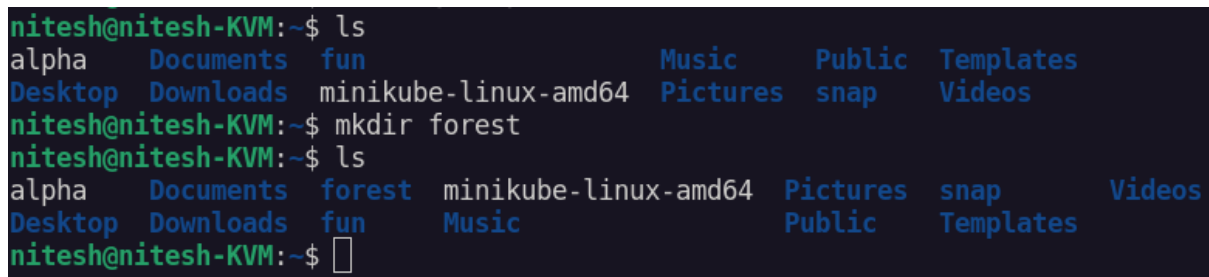
# How to make a directory

**Definition :** mkdir command is used for creating a directory in linux.

**Command :** mkdir directory\_name

**Describe the command :** mkdir is a command used to create files.  
Forest is the directory name.

```
nitesh@nitesh-KVM:~$ ls
alpha  Documents fun          Music  Public Templates
Desktop Downloads minikube-linux-amd64 Pictures snap  Videos
nitesh@nitesh-KVM:~$ mkdir forest
nitesh@nitesh-KVM:~$ ls
alpha  Documents forest minikube-linux-amd64 Pictures snap  Videos
Desktop Downloads fun   Music          Public  Templates
nitesh@nitesh-KVM:~$ man mkdir
nitesh@nitesh-KVM:~$
```



```
nitesh@nitesh-KVM:~$ ls
alpha  Documents fun          Music  Public Templates
Desktop Downloads minikube-linux-amd64 Pictures snap  Videos
nitesh@nitesh-KVM:~$ mkdir forest
nitesh@nitesh-KVM:~$ ls
alpha  Documents forest minikube-linux-amd64 Pictures snap  Videos
Desktop Downloads fun   Music          Public  Templates
nitesh@nitesh-KVM:~$
```

**Option 2 :Create folder inside folder. (-p)**

**Command :** mkdir -p d/e

**Description :** mkdir is a command used to create files.  
-p is used for the parent directory.  
d and e are directory names.

```
nitesh@nitesh-KVM:~$ mkdir -p d/e
nitesh@nitesh-KVM:~$ ls
a c Desktop Downloads Music Public Templates
b d Documents minikube-linux-amd64 Pictures snap  Videos
nitesh@nitesh-KVM:~$ cd d
nitesh@nitesh-KVM:~/d$ ls
e
```

```
nitesh@nitesh-KVM:~$ mkdir -p d/e
nitesh@nitesh-KVM:~$ ls
a  c  Desktop  Downloads  Music  Public  Templates
b  d  Documents  minikube-linux-amd64  Pictures  snap  Videos
nitesh@nitesh-KVM:~$ cd d
nitesh@nitesh-KVM:~/d$ ls
e
```

### Option 3 : Print Message after creating directory

**Command :** `mkdir -v f`

**Description :** `mkdir` is a command used to create file.  
 -v means verbose.  
 f is a directory.

```
nitesh@nitesh-KVM:~/d$ mkdir -v f
mkdir: created directory 'f'
nitesh@nitesh-KVM:~/d$ ls
e f
```

```
nitesh@nitesh-KVM:~/d$ mkdir -v f
mkdir: created directory 'f'
nitesh@nitesh-KVM:~/d$ ls
e f
```

### Option 4 : Set permissions. (-m)

**Definition:** -m is used to set read write and execute permission on directories.

**Command :** `mkdir -m a=rwx directory_name`

**Describe :** `mkdir -m a=r fun`  
`mkdir` is a command used to create file.  
 -m is used to set permissions for directory read,write and execute.  
 Fun is a directory.

```
nitesh@nitesh-KVM:~$ mkdir -m a=r fun
nitesh@nitesh-KVM:~$ ls
a  c  Desktop  Downloads  minikube-linux-amd64  Pictures  snap  Videos
b  d  Documents  fun      Music      Public  Templates
nitesh@nitesh-KVM:~$ ls-l
```

ls-l: command not found  
nitesh@nitesh-KVM:~\$ ls -l

```
total 91532
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:51 a
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:52 b
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:52 c
drwxrwxr-x 4 nitesh nitesh 4096 Dec 14 16:53 d
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Desktop
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Documents
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Downloads
dr--r--r-- 2 nitesh nitesh 4096 Dec 14 17:12 fun
-rw-rw-r-- 1 nitesh nitesh 93670363 Dec 12 18:34 minikube-linux-amd64
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Music
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Pictures
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Public
drwx----- 3 nitesh nitesh 4096 Dec 12 16:47 snap
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Templates
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Videos
nitesh@nitesh-KVM:~$
```

```
nitesh@nitesh-KVM:~$ mkdir -m a=r fun
nitesh@nitesh-KVM:~$ ls
a c Desktop Downloads minikube-linux-amd64 Pictures snap Videos
b d Documents fun Music Public Templates
nitesh@nitesh-KVM:~$ ls-l
ls-l: command not found
nitesh@nitesh-KVM:~$ ls -l
total 91532
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:51 a
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:52 b
drwxrwxr-x 2 nitesh nitesh 4096 Dec 14 16:52 c
drwxrwxr-x 4 nitesh nitesh 4096 Dec 14 16:53 d
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Desktop
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Documents
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Downloads
dr--r--r-- 2 nitesh nitesh 4096 Dec 14 17:12 fun
-rw-rw-r-- 1 nitesh nitesh 93670363 Dec 12 18:34 minikube-linux-amd64
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Music
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Pictures
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Public
drwx----- 3 nitesh nitesh 4096 Dec 12 16:47 snap
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Templates
drwxr-xr-x 2 nitesh nitesh 4096 Dec 12 16:47 Videos
nitesh@nitesh-KVM:~$
```

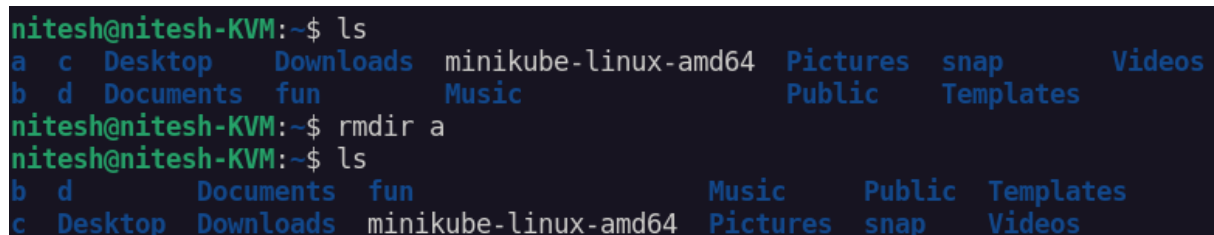
# Remove a directory

**Definition :** rmdir is used to remove a directory.

**Command :** rmdir a

**Description :** rmdir is used to remove an empty directory.  
a is a directory name.

```
nitesh@nitesh-KVM:~$ ls
a c Desktop Downloads minikube-linux-amd64 Pictures snap Videos
b d Documents fun Music Public Templates
nitesh@nitesh-KVM:~$ rmdir a
nitesh@nitesh-KVM:~$ ls
b d Documents fun Music Public Templates
c Desktop Downloads minikube-linux-amd64 Pictures snap Videos
```



```
nitesh@nitesh-KVM:~$ ls
a c Desktop Downloads minikube-linux-amd64 Pictures snap Videos
b d Documents fun Music Public Templates
nitesh@nitesh-KVM:~$ rmdir a
nitesh@nitesh-KVM:~$ ls
b d Documents fun Music Public Templates
c Desktop Downloads minikube-linux-amd64 Pictures snap Videos
```

**Option 1 : Remove parent directory.**

**Command :** rm -r d

**Description :** rm is used to remove non- empty directory.  
-r is recursively.  
d is a directory name.

```

nitesh@nitesh-KVM:~$ ls
b d   Documents f   minikube-linux-amd64 Pictures snap   Videos
c Desktop Downloads fun Music           Public  Templates
nitesh@nitesh-KVM:~$ rm -r d
nitesh@nitesh-KVM:~$ ls
b Desktop Downloads fun           Music Public Templates
c Documents f           minikube-linux-amd64 Pictures snap Videos
nitesh@nitesh-KVM:~$

```

```

nitesh@nitesh-KVM:~$ ls
b d   Documents f   minikube-linux-amd64 Pictures snap   Videos
c Desktop Downloads fun Music           Public  Templates
nitesh@nitesh-KVM:~$ rm -r d
nitesh@nitesh-KVM:~$ ls
b Desktop Downloads fun           Music Public Templates
c Documents f           minikube-linux-amd64 Pictures snap Videos
nitesh@nitesh-KVM:~$ █

```

## Make a copy of a file

**Definition :** cp command is used to copy a file.

**Command :** cp original\_file\_name new\_file\_name

**Describe :** cp abcd ab1

cp is used for copy.

abcd is an original file.

ab1 is a new file.

```

nitesh@nitesh-KVM:~$ cat abcd
hello linux
nitesh@nitesh-KVM:~$ ls
abcd   b Desktop Downloads fun           Music Public Templates
abcd.text c Documents f           minikube-linux-amd64 Pictures snap Videos
nitesh@nitesh-KVM:~$ cp abcd ab1
nitesh@nitesh-KVM:~$ ls
ab1 abcd.text c   Documents f   minikube-linux-amd64 Pictures snap Videos
abcd b     Desktop Downloads fun Music           Public  Templates
nitesh@nitesh-KVM:~$ car ab1
Command 'car' not found, but can be installed with:
sudo apt install ucommon-utils
nitesh@nitesh-KVM:~$ cat ab1
hello linux
nitesh@nitesh-KVM:~$

```

```

nitesh@nitesh-KVM:~$ cat abcd
hello linux
nitesh@nitesh-KVM:~$ ls
abcd      b Desktop  Downloads fun      Music  Public  Templates
abcd.text c Documents f        minikube-linux-amd64 Pictures snap  Videos
nitesh@nitesh-KVM:~$ cp abcd ab1
nitesh@nitesh-KVM:~$ ls
ab1  abcd.text c Documents f minikube-linux-amd64 Pictures snap Videos
abcd b Desktop Downloads fun Music Public Templates
nitesh@nitesh-KVM:~$ car ab1
Command 'car' not found, but can be installed with:
sudo apt install ucommon-utils
nitesh@nitesh-KVM:~$ cat ab1
hello linux
nitesh@nitesh-KVM:~$ █

```

## Move or rename a file

**Definition :** Moving - it is a process of moving a file from one location to another in the system.

Rename : It is a process in which we can change the name of the file.

**Command :** `mv abc /home/nitesh/Downloads/`

**Describe :** mv command is used to move the file or directory to another location and also mv is used to rename a file or directory name in linux.

```

nitesh@nitesh-KVM:~$ ls -lrth /home/nitesh/Downloads/
total 0

```

```

nitesh@nitesh-KVM:~$ mkdir abc

```

```

nitesh@nitesh-KVM:~$ mv abc /home/nitesh/Downloads/

```

```

nitesh@nitesh-KVM:~$ ls -lrth /home/nitesh/Downloads/
total 4.0K

```

```

drwxrwxr-x 2 nitesh nitesh 4.0K Dec 14 20:24 abc

```

```

nitesh@nitesh-KVM:~$ ls -lrth /home/nitesh/Downloads/
total 0
nitesh@nitesh-KVM:~$ mkdir abc
nitesh@nitesh-KVM:~$ mv abc /home/nitesh/Downloads/
nitesh@nitesh-KVM:~$ ls -lrth /home/nitesh/Downloads/
total 4.0K
drwxrwxr-x 2 nitesh nitesh 4.0K Dec 14 20:24 abc

```

Here mv is used to move the directory. As We moved the abc directory in /home/nitesh/Downloads

```

nitesh@nitesh-KVM:~$ mv /home/nitesh/Downloads/abc /home/nitesh/Downloads/nitesh
nitesh@nitesh-KVM:~$
nitesh@nitesh-KVM:~$
nitesh@nitesh-KVM:~$ ls
alpha Desktop Documents Downloads forest fun minikube-linux-amd64 Music Pictures Public snap Templates Videos
nitesh@nitesh-KVM:~$ ls -lrth /home/nitesh/Downloads/
total 4.0K
drwxrwxr-x 2 nitesh nitesh 4.0K Dec 14 20:24 nitesh

```

Here mv is used to rename the directory. As we named the abc directory as nitesh.

## Create an empty file

**Definition** : touch command is used to create an empty file.

**Command** : touch alpha

**Describe** : touch is used to create an empty file.  
alpha is a file name.

```
nitesh@nitesh-KVM:~$ touch alpha
```

```
nitesh@nitesh-KVM:~$ cat alpha
```

```
nitesh@nitesh-KVM:~$
```

```
nitesh@nitesh-KVM:~$ touch alpha
nitesh@nitesh-KVM:~$ cat alpha
nitesh@nitesh-KVM:~$
```

## Remove multiple files with a single command

**Command** : rm ab1 abcd.text abcd

**Describe** : rm is a command used to remove non-empty files or directory.  
ab1, abcd.text and abcd are files.

```
nitesh@nitesh-KVM:~$ ls
```

```
ab1  abcd.text  c      Documents  f  minikube-linux-amd64  Pictures  snap  Videos
```

```
abcd  b      Desktop  Downloads  fun  Music      Public  Templates
```

```
nitesh@nitesh-KVM:~$ rm ab1 abcd.text abcd
```

```
nitesh@nitesh-KVM:~$ ls
```

```
b  Desktop  Downloads  fun      Music  Public  Templates
```

```
c  Documents  f      minikube-linux-amd64  Pictures  snap  Videos
```

```
nitesh@nitesh-KVM:~$
```

```
nitesh@nitesh-KVM:~$ ls
ab1  abcd.text  c      Documents  f  minikube-linux-amd64  Pictures  snap  Videos
abcd  b      Desktop  Downloads  fun  Music      Public  Templates
nitesh@nitesh-KVM:~$ rm ab1 abcd.text abcd
nitesh@nitesh-KVM:~$ ls
b  Desktop  Downloads  fun      Music  Public  Templates
c  Documents  f      minikube-linux-amd64  Pictures  snap  Videos
nitesh@nitesh-KVM:~$
```



# Remove content from the folder without removing folder

**Command** : `rm -f /home/nitesh/b/ab2`

**Describe** : `rm` is a command used to remove non empty files or directory.  
-f is used for force action.  
home/nitesh/b/ab2 is a path of the file.

```
nitesh@nitesh-KVM:~$ cd b
nitesh@nitesh-KVM:~/b$ ls
nitesh@nitesh-KVM:~/b$ vi ab2
nitesh@nitesh-KVM:~/b$ ls
ab2
nitesh@nitesh-KVM:~/b$ cd
nitesh@nitesh-KVM:~$ rm -f /home/nitesh/b/ab2
nitesh@nitesh-KVM:~$ cd b
nitesh@nitesh-KVM:~/b$ ls
nitesh@nitesh-KVM:~/b$
```

A terminal window with a dark background and green text. It shows a series of commands and their outputs. The user navigates to a directory named 'b', lists its contents (showing 'ab2'), and then runs 'rm -f /home/nitesh/b/ab2' to remove the file. Finally, they list the contents again, and the terminal shows a blank space, indicating the file has been removed.

```
nitesh@nitesh-KVM:~$ cd b
nitesh@nitesh-KVM:~/b$ ls
nitesh@nitesh-KVM:~/b$ vi ab2
nitesh@nitesh-KVM:~/b$ ls
ab2
nitesh@nitesh-KVM:~/b$ cd
nitesh@nitesh-KVM:~$ rm -f /home/nitesh/b/ab2
nitesh@nitesh-KVM:~$ cd b
nitesh@nitesh-KVM:~/b$ ls
nitesh@nitesh-KVM:~/b$
```

# Create multiple folder(a-z) with a single command

**Command** : `mkdir {a..z}`

**Description** : `mkdir` is used to create a directory.  
{a..z} is listed on the directory name to be created.

```
nitesh@nitesh-KVM:~$ mkdir {a..z}
nitesh@nitesh-KVM:~$ ls
```

a Desktop f i m o q t Videos z  
b Documents fun j minikube-linux-amd64 p r Templates w  
c Downloads g k Music Pictures s u x  
d e h l n Public snap v y  
nitesh@nitesh-KVM:~\$

```
nitesh@nitesh-KVM:~$ mkdir {a..z}
nitesh@nitesh-KVM:~$ ls
a Desktop f i m o q t Videos z
b Documents fun j minikube-linux-amd64 p r Templates w
c Downloads g k Music Pictures s u x
d e h l n Public snap v y
nitesh@nitesh-KVM:~$
```