Linux Basic File and Directory Commands

Here's a quick guide to some basic Linux file and directory commands:

- **mkdir: Create a new directory.**
  - **Example: mkdir my_folder (creates a directory named *my_folder*).**
- **touch: Create an empty file or update the timestamp of an existing file.**
  - **Example: touch myfile.txt (creates an empty file named *myfile.txt*).**
- **cp: Copy files or directories.**
  - **Example: cp file1.txt file2.txt (copies *file1.txt* to *file2.txt*).**
  - **To copy a directory: cp -r my_folder new_folder (copies the entire *my_folder* to *new_folder*).**
- **mv: Move or rename files and directories.**
  - **Example: mv oldname.txt newname.txt (renames *oldname.txt* to *newname.txt*).**
  - **To move a file: mv myfile.txt /path/to/destination/ (moves *myfile.txt* to a new location).**
- **`rmdir`: Remove an empty directory.**
  - **Usage: This command deletes a directory, but only if it's empty.**
  - **Example:**

```
rmdir my_folder
```

  - **This will remove *my_folder* if it has no files or subdirectories.**
  - **If the directory isn't empty, you'll need to use rm -r to remove it and its contents.**

- **`rm`: Remove (delete) a file or directory.**
  - **Usage: This command deletes files or directories permanently.**
  - **Example (to remove a file):**

```
rm myfile.txt
```

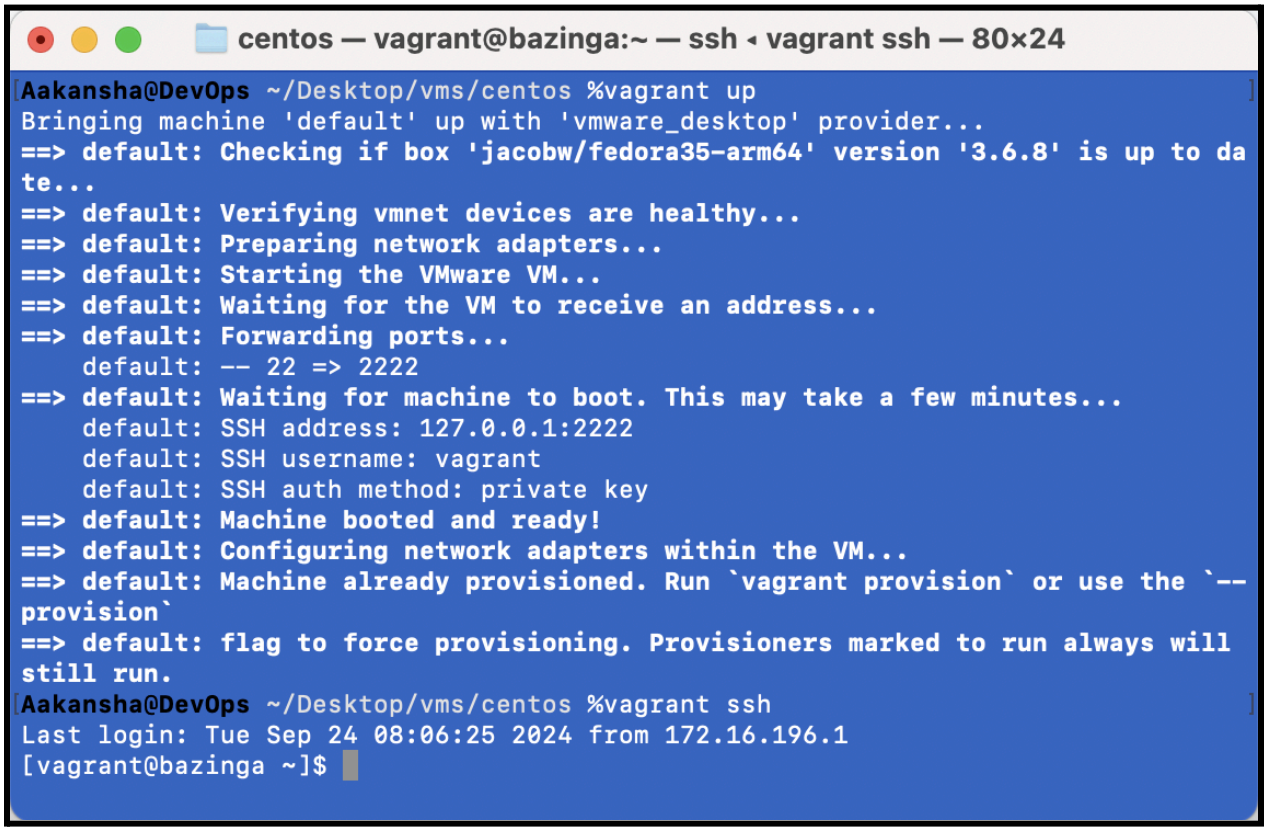
  - **This deletes *myfile.txt*.**
  - **For directories:**
  - **Use `rm -r` to remove a directory and its contents:**

```
rm -r my_folder
```

  - **This deletes *my_folder* and everything inside it.**

NOTE: Be careful, as rm permanently deletes files without sending them to the trash!

Practicing Basic Commands




```
[[vagrant@bazinga ~]$ ls
[[vagrant@bazinga ~]$ pwd
 /home/vagrant
[[vagrant@bazinga ~]$ mkdir dev
[[vagrant@bazinga ~]$ mkdir ops backupdir
[[vagrant@bazinga ~]$ ls
 backupdir  dev  ops
[[vagrant@bazinga ~]$ pwd
 /home/vagrant
[[vagrant@bazinga ~]$ touch testfile1.txt
[[vagrant@bazinga ~]$ ls
 backupdir  dev  ops  testfile1.txt
```

```
[vagrant@bazinga ~]$ touch devopsfile{1..10}.txt
[vagrant@bazinga ~]$ ls
backupdir         devopsfile2.txt  devopsfile6.txt  ops
dev               devopsfile3.txt  devopsfile7.txt  testfile1.txt
devopsfile10.txt  devopsfile4.txt  devopsfile8.txt
devopsfile1.txt   devopsfile5.txt  devopsfile9.txt
```

```
[vagrant@bazinga ~]$ cp devopsfile1.txt dev/
[vagrant@bazinga ~]$ ls dev/
devopsfile1.txt
[vagrant@bazinga ~]$ ls
backupdir         devopsfile2.txt  devopsfile6.txt  ops
dev               devopsfile3.txt  devopsfile7.txt  testfile1.txt
devopsfile10.txt  devopsfile4.txt  devopsfile8.txt
devopsfile1.txt   devopsfile5.txt  devopsfile9.txt
[vagrant@bazinga ~]$ cd /tmp/
[vagrant@bazinga tmp]$ ls
systemd-private-e760ace97a70486bbcbc8cca03ad3675-chronyd.service-VHXVkS
systemd-private-e760ace97a70486bbcbc8cca03ad3675-dbus-broker.service-eHTYdy
systemd-private-e760ace97a70486bbcbc8cca03ad3675-memcached.service-TIYVqD
systemd-private-e760ace97a70486bbcbc8cca03ad3675-systemd-logind.service-9LFXy9
systemd-private-e760ace97a70486bbcbc8cca03ad3675-systemd-oomd.service-a5gbm8
systemd-private-e760ace97a70486bbcbc8cca03ad3675-systemd-resolved.service-LtlCKz
vmware-root_727-4290690966
vmware-root_728-2991137345
[vagrant@bazinga tmp]$
```

```
[vagrant@bazinga tmp]$ ls /home/vagrant/dev/
devopsfile1.txt
[vagrant@bazinga tmp]$ cd
[vagrant@bazinga ~]$ ls
backupdir         devopsfile2.txt  devopsfile6.txt  ops
dev               devopsfile3.txt  devopsfile7.txt  testfile1.txt
devopsfile10.txt  devopsfile4.txt  devopsfile8.txt
devopsfile1.txt   devopsfile5.txt  devopsfile9.txt
[vagrant@bazinga ~]$ pwd
/home/vagrant
[vagrant@bazinga ~]$ cd /tmp/
[vagrant@bazinga tmp]$ cp /home/vagrant/devopsfile2.txt /home/vagrant/dev/
[vagrant@bazinga tmp]$ cd ~
[vagrant@bazinga ~]$ pwd
/home/vagrant
[vagrant@bazinga ~]$
```

```
[vagrant@bazinga ~]$ ls
backupdir         devopsfile2.txt  devopsfile6.txt  ops
dev               devopsfile3.txt  devopsfile7.txt  testfile1.txt
devopsfile10.txt  devopsfile4.txt  devopsfile8.txt
devopsfile1.txt   devopsfile5.txt  devopsfile9.txt
[vagrant@bazinga ~]$ cp dev backupdir/
cp: -r not specified; omitting directory 'dev'
[vagrant@bazinga ~]$ cp -r dev backupdir/
[vagrant@bazinga ~]$ ls backupdir/
dev
[vagrant@bazinga ~]$ ls /home/vagrant/backupdir/
dev
[vagrant@bazinga ~]$
```

```
[vagrant@bazinga ~]$ cp --help
Usage: cp [OPTION]... [-T] SOURCE DEST
  or:  cp [OPTION]... SOURCE... DIRECTORY
  or:  cp [OPTION]... -t DIRECTORY SOURCE...
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
  -a, --archive                same as -dR --preserve=all
      --attributes-only        don't copy the file data, just the attributes
      --backup[=CONTROL]       make a backup of each existing destination file
  -b                           like --backup but does not accept an argument
      --copy-contents          copy contents of special files when recursive
  -d                           same as --no-dereference --preserve=links
  -f, --force                  if an existing destination file cannot be
                                 opened, remove it and try again (this option
                                 is ignored when the -n option is also used)
  -i, --interactive            prompt before overwrite (overrides a previous -n
                                  option)
  -H                           follow command-line symbolic links in SOURCE
```

```
[vagrant@bazinga ~]$ ls
backupdir          devopsfile1.txt  devopsfile5.txt  devopsfile8.txt
dev                devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile10.txt   devopsfile4.txt  devopsfile7.txt  testfile1.txt
[vagrant@bazinga ~]$ ls dev/
devopsfile1.txt  devopsfile2.txt  ops
[vagrant@bazinga ~]$ mv testfile1.txt testfile22.txt
[vagrant@bazinga ~]$ ls
backupdir          devopsfile1.txt  devopsfile5.txt  devopsfile8.txt
dev                devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile10.txt   devopsfile4.txt  devopsfile7.txt  testfile22.txt
[vagrant@bazinga ~]$
```

```
[vagrant@bazinga ~]$ pwd
/home/vagrant
[vagrant@bazinga ~]$ ls
backupdir          devopsfile2.txt  devopsfile6.txt  ops
dev                devopsfile3.txt  devopsfile7.txt  testfile1.txt
devopsfile10.txt   devopsfile4.txt  devopsfile8.txt
devopsfile1.txt    devopsfile5.txt  devopsfile9.txt
[vagrant@bazinga ~]$ mv devopsfile3.txt ops/
[vagrant@bazinga ~]$ ls ops/
devopsfile3.txt
[vagrant@bazinga ~]$ mv ops dev
dev/               devopsfile2.txt   devopsfile6.txt   devopsfile9.txt
devopsfile1.txt    devopsfile4.txt   devopsfile7.txt
devopsfile10.txt   devopsfile5.txt   devopsfile8.txt
[vagrant@bazinga ~]$ mv ops dev/
[vagrant@bazinga ~]$
```

```
[vagrant@bazinga ~]$ ls
backupdir          devopsfile1.txt  devopsfile5.txt  devopsfile8.txt
dev                devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile10.txt   devopsfile4.txt  devopsfile7.txt  testfile22.txt
[vagrant@bazinga ~]$ mkdir testdir
[vagrant@bazinga ~]$ ls
backupdir          devopsfile2.txt  devopsfile7.txt  testfile22.txt
dev                devopsfile4.txt  devopsfile8.txt
devopsfile10.txt   devopsfile5.txt  devopsfile9.txt
devopsfile1.txt    devopsfile6.txt  testdir
[vagrant@bazinga ~]$ mv *.txt testdir/
[vagrant@bazinga ~]$ ls
backupdir  dev  testdir
[vagrant@bazinga ~]$
```

```
[vagrant@bazinga ~]$ cd testdir/
[vagrant@bazinga testdir]$ ls
devopsfile10.txt  devopsfile4.txt  devopsfile7.txt  testfile22.txt
devopsfile1.txt   devopsfile5.txt  devopsfile8.txt
devopsfile2.txt   devopsfile6.txt  devopsfile9.txt
[vagrant@bazinga testdir]$ rm devopsfile10.txt
[vagrant@bazinga testdir]$ mkdir mobile
[vagrant@bazinga testdir]$ ls
devopsfile1.txt  devopsfile5.txt  devopsfile8.txt  testfile22.txt
devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile4.txt  devopsfile7.txt  mobile
[vagrant@bazinga testdir]$ rm mobile/
rm: cannot remove 'mobile/': Is a directory
[vagrant@bazinga testdir]$ rm -r mobile/
[vagrant@bazinga testdir]$ ls
devopsfile1.txt  devopsfile5.txt  devopsfile8.txt
devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile4.txt  devopsfile7.txt  testfile22.txt
[vagrant@bazinga testdir]$
```

```
[vagrant@bazinga testdir]$ ls
devopsfile1.txt  devopsfile5.txt  devopsfile8.txt
devopsfile2.txt  devopsfile6.txt  devopsfile9.txt
devopsfile4.txt  devopsfile7.txt  testfile22.txt
[vagrant@bazinga testdir]$ mkdir testdir{1..5}
[vagrant@bazinga testdir]$ ls
devopsfile1.txt  devopsfile5.txt  devopsfile8.txt  testdir2  testdir5
devopsfile2.txt  devopsfile6.txt  devopsfile9.txt  testdir3  testfile22.txt
devopsfile4.txt  devopsfile7.txt  testdir1         testdir4
[vagrant@bazinga testdir]$ rm -rf *
[vagrant@bazinga testdir]$ ls
[vagrant@bazinga testdir]$ pwd
/home/vagrant/testdir
[vagrant@bazinga testdir]$ cd
[vagrant@bazinga ~]$ ls
backupdir  dev  testdir
[vagrant@bazinga ~]$ rm -rf *
[vagrant@bazinga ~]$ ls
[vagrant@bazinga ~]$
```

```
centos — -zsh — 64×17
Last login: Tue Sep 24 20:37:38 on ttys000
Aakansha@DevOps ~ % cd Desktop/vms/centos
Aakansha@DevOps ~/Desktop/vms/centos %ls
Vagrantfile
Aakansha@DevOps ~/Desktop/vms/centos %vagrant destroy
    default: Are you sure you want to destroy the 'default' VM?
[y/N] y
==> default: Stopping the VMware VM...
==> default: Deleting the VM...
Aakansha@DevOps ~/Desktop/vms/centos %
```