

# Topic: Comparing Files

We can compare data of two files by using the following commands:

- 1) `cmp`
- 2) `diff`
- 3) `sdiff`
- 4) `vidiff`
- 5) `comm`

## 1) `cmp` Comamnd:

🔗 It will compare byte by byte.

`cmp file1.txt file2.txt`

🔗 If content is same then we won't get any output.

🔗 If the content is different, then it provides information about only first difference. byte number and line number will be provided.

```
$ cmp a.txt c.txt
```

```
a.txt c.txt differ: byte 7, line 2
```

Note: `cmp` command won't show all differences and show only first difference.

## 2) `diff` Comamnd:

🔗 It will show all differences in the content.

`diff file1.txt file2.txt`

🔗 If the content is the same then no output.

🔗 If the content is different then it will show all differences.

```
$ diff a.txt b.txt
```

```
$ diff a.txt c.txt
```

```
2,3c2,3
```

```
< Bunny
```

```
< Chinny
```

```
---
```

```
> bunny
```

```
> chinny
```

```
b
```

For the `diff` command we can use the following options.

`-q` shows message when files are different.

`-s` shows message when files are same | identical

`-y` shows comparison line by line (parallel comparison)

```
$ diff -q a.txt c.txt
```

```
Files a.txt and c.txt differ
```

```
$ diff -s a.txt b.txt
```

```
Files a.txt and b.txt are identical
```

```
$ diff -y a.txt c.txt
```

```
Sunny Sunny
```

```
Bunny | bunny
```

```
Chinny | chinny
```

```
Vinny Vinny
```

Pinny Pinny

If we want to suppress common lines then we should use `--suppress-common-lines` option with `-y` option.

```
$ diff -y --suppress-common-lines a.txt c.txt
```

Bunny | bunny

Chinny | chinny

### 3) sdiff Command:

We can use `sdiff` command for side by side comparison (parallel comparison)

```
$ sdiff a.txt b.txt
```

Sunny Sunny

Bunny Bunny

Chinny Chinny

Vinny Vinny

Pinny Pinny

```
$ sdiff a.txt c.txt
```

Sunny Sunny

Bunny | bunny

Chinny | chinny

Vinny Vinny

Pinny Pinny

**Note:** `sdiff` command and `diff` command with `-y` option are same.

### 4) vimdiff Command:

- ❖ It will highlight differences in vim.
- ❖ To support this command, we have to install vim by using the following command.
- ❖ `sudo apt install vim`

```
vimdiff a.txt b.txt
```

`ctrl+w+w` → To go to next window

`:q` → Close current window

`:qa` → Close all windows

`:qa!` → Close all windows forcibly.

### 5) comm Command:

- ❖ By using this command we can compare data of two files.

```
comm file1.txt file2.txt
```

- ❖ It display results in 3 columns

**column-1:** Data present only in file1.txt but not in file2.txt

**column-2:** Data present only in file2.txt but not in file1.txt

**column-3:** Common data of both files.

```
$ comm a.txt c.txt
```

Sunny

bunny

Bunny

chinny

Chinny

Vinny

Pinny

❖ **With comm command we can use the following options**

- 1 → If we don't want to display column-1
- 2 → If we don't want to display column-2
- 3 → If we don't want to display column-3
- 12 → If we don't want to display columns 1 and 2

**Note:** We can compare files from various builds by using our comparison commands (cmp, diff, sdiff, vimdiff, comm).

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