The file comparison command helps us to compare the files and find the similarities and differences between these files.

the **cmp** command is used to compare two files byte by byte. If a difference is found, it reports the byte and line number where the first difference is found. If no differences are found, by default, **cmp** returns no output.

In its simplest form, you can use 'cmp' in the following way:

```
cmp [file1-name] [file2-name]
```

As already mentioned, the tool compares two files byte by byte. As a difference is found, the tool stops and produces an output that tells which line and byte the difference is in.
For example:

```
cmp file1.txt file2.txt
```

How to make cmp print differing bytes

If you want, you can also make 'cmp' display the differing bytes in its output. This can be done using the -b command line option.

```
cmp -b [file1] [file2]
```

For example:

```
cmp -b file1.txt  file2.txt
```

How to make cmp skip some initial bytes from both files

If you want, you can also make 'cmp' skip a particular number of initial bytes from both files, and then compare them. This can be done by specifying the number of bytes as argument to the -i command line option.

```
cmp -i [bytes-to-be-skipped] [file1] [file2]
```

For example:

```
cmp -i 10 file1.txt  file2.txt
```

How to make cmp display byte position (and value) for all differing bytes

If you want, you can also make the 'cmp' command print byte position and byte value for all differing bytes. This feature can be accessed using the -l command line option.

```
cmp -l [file1] [file2]
```

For example:

```
cmp -l file1.txt  file2.txt
```

The first column in the output represents the position (byte number) of differing bytes. The second column represents the byte value of the differing byte in the first file, while the third column represents the byte value of the differing byte in the second file.

How to limit number of bytes to be compared

The tool also allows you to limit the number of bytes that you want to compare - like, you may want to compare at most 25 or 50 bytes. This can be done by using the -n command line option.

```
$ cmp -n [number-of-bytes-to-be-compared]  [file1] [file2]
```

For example:

```
$ cmp -n 25  file1.txt  file2.txt
```

How to make 'cmp' suppress output

The tool also allows you to suppress the output it produces normally. This can be done using the -s command line option.

```
$ cmp -s [file1] [file2]
```

For example:

```
$ cmp -s file1.txt file2.txt
```

This option may come in handy when using the 'cmp' utility in scripts. For example, depending on whether the files are identical or not (which one can tell by accessing the command's exit code), you might want to display a custom message instead of the output the tool normally produces.