Uniq Command Examples

Uniq command is helpful to remove or detect duplicate entries in a file. This tutorial explains few most frequently used uniq command line options that you might find helpful.

The following test file is used in some of the example to understand how uniq command works.

```
$ cat test
aa
aa
bb
bb
bb
xx
```

1. Basic Usage

Syntax:

```
$ uniq [-options]
```

For example, when uniq command is run without any option, it removes duplicate lines and displays unique lines as shown below.

```
$ uniq test
aa
bb
xx
```

2. Count Number of Occurrences using -c option

This option is to count occurrence of lines in file.

```
$ uniq -c test
      2 aa
      3 bb
      1 xx
```

3. Print only Duplicate Lines using -d option

This option is to print only duplicate repeated lines in file. As you see below, this didn't display the line "xx", as it is not duplicate in the test file.

```
$ uniq -d test
aa
bb
```

The above example displayed all the duplicate lines, but only once. But, this -D option will print all duplicate lines in file. For example, line “aa” was there twice in the test file, so the following uniq command displayed the line “aa” twice in this output.

```
$ uniq -D test
aa
aa
bb
bb
bb
```

4. Print only Unique Lines using -u option

This option is to print only unique lines in file.

```
$ uniq -u test
xx
```

If you like to delete duplicate lines from a file using certain pattern, you can use sed delete command.

5. Limit Comparison to ‘N’ characters using -w option

This option restricts comparison to first specified ‘N’ characters only. For this example, use the following test2 input file.

```
$ cat test2
hi Linux
hi LinuxU
hi LinuxUnix
hi Unix
```

The following uniq command using option ‘w’ is compares the first 8 characters of lines in file, and then using ‘c’ option prints number of occurrences of lines of file.

```
$ uniq -c -w 8 testNew
  3 hi Linux
  1 hi Unix
```

The following uniq command using option ‘w’ is compares first 8 characters of lines in file, and then using ‘D’ option prints all duplicate lines of file.

```
$ uniq -D -w 8 testNew
hi Linux
hi LinuxU
hi LinuxUnix
```

6. Avoid Comparing first ‘N’ Characters using -s option

This option skips comparison of first specified ‘N’ characters. For this example, use the following test3 input file.

```
$ cat test3
aabb
xxbb
bbc
bbd
```

The following uniq command using option ‘s’ skips comparing first 2 characters of lines in file, and then using ‘D’ option prints all duplicate lines of file.

Here, starting 2 characters i.e. ‘aa’ in 1st line and ‘’xx’ in 2nd line would not be compared and then next 2 characters ‘bb’ in both lines are same so would be shown as duplicated lines.

```
$ uniq -D -s 2 test3
aabb
xxbb
```

7. Avoid Comparing first ‘N’ Fields using -f option

This option skips comparison of first specified ‘N’ fields of lines in file.

```
$ cat test2
hi hello Linux
hi friend Linux
hi hello LinuxUnix
```

The following uniq command using option ‘f’ skips comparing first 2 fields of lines in file, and then using ‘D’ option prints all duplicate lines of file.

Here, starting 2 fields i.e. ‘hi hello’ in 1st line and ‘hi friend’ in 2nd line would not be compared and then next field ‘Linux’ in both lines are same so would be shown as duplicated lines.

```
$ uniq -D -f 2 test2
hi hello Linux
hi friend Linux
```

Uniq Command Examples

Uniq command in unix or linux system is used to suppress the duplicate lines from a file. It discards all the successive identical lines except one from the input and writes the output.

The syntax of uniq command is

```
uniq [option] filename
```

The options of uniq command are:

- c : Count of occurrence of each line.
- d : Prints only duplicate lines.
- D : Print all duplicate lines
- f : Avoid comparing first N fields.
- i : Ignore case when comparing.
- s : Avoid comparing first N characters.
- u : Prints only unique lines.
- w : Compare no more than N characters in lines

Uniq Command Examples:

First create the following example.txt file in your unix or linux operating system.

```
> cat example.txt
Unix operating system
unix operating system
unix dedicated server
linux dedicated server
```

1. Suppress duplicate lines

The default behavior of the uniq command is to suppress the duplicate line. Note that, you have to pass sorted input to the uniq, as it compares only successive lines.

```
> uniq example.txt
unix operating system
unix dedicated server
linux dedicated server
```

If the lines in the file are not in sorted order, then use the sort command and then pipe the output to the uniq command.

```
> sort example.txt | uniq
```

2. Count of lines.

The -c option is used to find how many times each line occurs in the file. It prefixes each line with the count.

```
> uniq -c example.txt
      2 unix operating system
      1 unix dedicated server
      1 linux dedicated server
```

3. Display only duplicate lines.

You can print only the lines that occur more than once in a file using the -d option.

```
> uniq -d example.txt
unix operating system

> uniq -D example.txt
unix operating system
unix operating system
```

The -D option prints all the duplicate lines.

4. Skip first N fields in comparison.

The -f option is used to skip the first N columns in comparison. Here the fields are delimited by the space character.

```
> uniq -f2 example.txt
unix operating system
unix dedicated server
```

In the above example the uniq command, just compares the last fields. For the first two lines, the last field contains the string "system". Uniq prints the first line and skips the second. Similarly it prints the third line and skips the fourth line.

5. Print only unique lines.

You can skip the duplicate lines and print only unique lines using the -u option

```
> uniq -u example.txt
unix dedicated server
linux dedicated server
```