

Regular Expression :

In Linux Regular expression are special characters which helps to search data and matching complex pattern. Regular expressions are sorted as 'regrep and regx'. Regreps are most commonly used within the linux commands

grep, sed, tr, vi

Types of regular expressions

Basic Regular function

- (.) Replaces any character
- (^) Matches start of string
- (\$) Matches end of string
- (*) Matches up zero or more times of preceding character
- (\) Represents special character
- () Groups regular expression
- (?) Matches up exactly one character

These are used with commands like tr, sed, vi and grep commonly.

Interval regular expression

This expression tells us about the number of occurrences of a character or string

Expression: $\{n\}$ Matches the preceding character appearing 'n' times

$\{n.m\}$ matches the preceding character appearing n times but not more than 'm'

$\{n\}$ matches the preceding characters only when it appears 'n' times or more

External regular expression

This expression contains continuous of more than one expression

Expression

$|+$ Matches one or more occurrence of the previous character

$|?$ Matches zero or more occurrence of the previous character

Ex. Give a file 'sample' containing text

Apple

ball

bat

cat

people

- (i) Search for content containing letter 'a'
- (ii) Search for content start with 'a'
- (iii) Search for content that end with 't'
- (iv) Search for content where characters 'a' precedes 't'

(i) \$ cat sample | grep a

apple
ball
bat
cat
people

(ii) \$ cat sample | grep ^a

apple

(iii) \$ cat sample | grep t\$

bat
cat

(iv) cat sample | grep - "a\+t"

bat
cat