

Extended regular exp.

- - match a single char

[abc] - any char from the list in []

[^abc] - any char except list [^]

^ - beginning of line

\$ - end of line

\ - change meaning

\< - begin word

\> - end word

^ \ . \$ - only.

ranges:
a-z
A-Z
0-9
b-r

grep -E "\<don\>" /etc/passwd

↑ ext. regex ↑ search pattern ↑ input file
extended regular expressions

* - 0 or more times the prev. exp.

+ - 1 or more times - "1"

? - 0 or 1

{m,n} - at least m, at most n

() - group

| - or

(0){2} → 1010

10{2} → 100

(0){1}(0) → 10

1* → 1
1111

1+ → 1
11
111 111

a? → a

{3,} → 53 or more times

555
55555

{0,1,2,3} of 1
1
11
111

{2,3}

grep - search for a file

sed - modify

⇒ what to change it to

sed -E "s/:/=/" /etc/passwd

↓
substitute

↓ what char to change

→ global

gi for case insensitive

awk -F: '{print \$1}' /etc/passwd

'/^[action]/ {print \$5}'

prog. awk

BEGIN { sum=0 }

{ sum += \$3 }

END { print sum }

awk -F: -f prog.awk /etc/passwd

we can run code in files