Linux Filters

cat fliter

akash@Lenovo-PC:~$ cat weeks.txt
sunday
monday
tuesday
wednesday
thursday
friday
Saturday

cat weeks.txt | grep sunday
Sunday

Cut filter

By delimeter
akash@Lenovo-PC:~$ cut -d- -f2 marks.txt
50
70
76
87
90
80
akash@Lenovo-PC:~$ cut -d- -f1 marks.txt
alex
alen
john
carry
celena
Justin

akash@Lenovo-PC:~$ cat > exm.txt
Apple is red

mango is yellow
your dress is red
red clor suits you
akash@Lenovo-PC:~$ cut -d ' ' -f2 exm.txt
is
is
dress
clor

akash@Lenovo-PC:~$ cut -d' ' -f3 exm.txt
red
yellow
is
suits

By byte
akash@Lenovo-PC:~$ cut -b 2 exm.txt
p
a
o
e
akash@Lenovo-PC:~$ cut -b 13 exm.txt

l
s
t
akash@Lenovo-PC:~$ cut -b 11 exm.txt
e
e

u

By character
akash@Lenovo-PC:~$ cat exm.txt
Apple is red

```
mango is yellow
your dress is red
red clor suits you
akash@Lenovo-PC:~$ cut -c 1,6 exm.txt
A
m
yd
rl
akash@Lenovo-PC:~$ cut -c 1-3 exm.txt
App
man
you
red
akash@Lenovo-PC:~$ cut -c 1-5 exm.txt
Apple
mango
your
red c
akash@Lenovo-PC:~$ cut -c 1-5,10-15 exm.txt
Applered
mangoyellow
your s is r
red csuits
akash@Lenovo-PC:~$ cut -c 1-15 exm.txt
Apple is red
mango is yellow
your dress is r
red clor suits
akash@Lenovo-PC:~$ cut -c 1,7,10 exm.txt
Air
miy
yrs
ros
Complement
cat exm.txt
```

```
Apple is red
mango is yellow
your dress is red
red clor suits you
akash@Lenovo-PC:~$ cut --complement -c 1 exm.txt
pple is red
ango is yellow
our dress is red
ed clor suits you
akash@Lenovo-PC:~$ cut --complement -c 1-5 exm.txt
 is red
 is yellow
dress is red
lor suits you
akash@Lenovo-PC:~$ cut --complement -c 1-5,10 exm.txt
 is ed
 is ellow
dres is red
lor uits you
```

Grep filter

```
cat marks.txt
alex-50
alen-70
john-76
carry-87
celena-90
justin-80
akash@Lenovo-PC:~$ cat marks.txt | grep 8
carry-87
justin-80
akash@Lenovo-PC:~$ cat marks.txt | grep e
alex-50
alen-70
celena-90
```

```
akash@Lenovo-PC:~$ grep 8 marks.txt
carry-87
justin-80
akash@Lenovo-PC:~$ grep -v 8 marks.txt
alex-50
alen-70
john-76
celena-90
akash@Lenovo-PC:~$ cat exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ grep red exm.txt
Apple is red
your dress is red
akash@Lenovo-PC:~$ grep -i red exm.txt
Apple is red
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ cat exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ grep -A1 yellow exm.txt
mango is yellow
your dress is red
akash@Lenovo-PC:~$ grep -B1 yellow exm.txt
Apple is red
mango is yellow
akash@Lenovo-PC:~$ grep -C1 yellow exm.txt
Apple is red
mango is yellow
your dress is red
```

akash@Lenovo-PC:~$ grep -A1 red exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ grep -B1 red exm.txt
Apple is red
mango is yellow
your dress is red

Comm filter
akash@Lenovo-PC:~$ cat file1.txt
Dhoni
Dravid
Sachin
Sewaag
Yuvi
akash@Lenovo-PC:~$ cat file2.txt
Dhoni
Dravid
Sachin
Zadeja
akash@Lenovo-PC:~$ comm file1.txt file2.txt
        Dhoni
        Dravid
        Sachin
Sewaag
Yuvi
    Zadeja
akash@Lenovo-PC:~$ comm -23 file1.txt file2.txt
Sewaag
Yuvi
akash@Lenovo-PC:~$ comm -13 file1.txt file2.txt
Zadeja
akash@Lenovo-PC:~$ comm -12 file1.txt file2.txt

Dhoni
Dravid
Sachin
akash@Lenovo-PC:~$ comm -3 file1.txt file2.txt
Sewaag
Yuvi
    Zadeja
akash@Lenovo-PC:~$ comm -2 file1.txt file2.txt
    Dhoni
    Dravid
    Sachin
Sewaag
Yuvi

sed command | linux stream editor

cat msg.txt
this is linux
welcome to linux
learn linux, learn fast
linu is very easy to learn
akash@Lenovo-PC:~$ cat msg.txt | sed 's/learn/study'
sed: -e expression #1, char 13: unterminated `s' command
akash@Lenovo-PC:~$ cat msg.txt | sed 's/learn/study/'
this is linux
welcome to linux
study linux, learn fast
linu is very easy to study
akash@Lenovo-PC:~$ cat msg.txt | sed 's/learn/study/g'
this is linux
welcome to linux
study linux, study fast
linu is very easy to study
akash@Lenovo-PC:~$ cat msg.txt | sed '/linux/d'
linu is very easy to learn
akash@Lenovo-PC:~$ cat exm.txt

```
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ sed -e 's/red/blue/;s/yelow/black/' exm.txt
Apple is blue
mango is yellow
your dress is blue
Red clor suits you
akash@Lenovo-PC:~$ cat > SedCommands
s/red/blue/;
s/yellow/black/
akash@Lenovo-PC:~$ sed -e SedCommands exm.txt
sed: -e expression #1, char 1: unknown command: `S'
akash@Lenovo-PC:~$ sed -f SedCommands exm.txt
Apple is blue
mango is black
your dress is blue
Red clor suits you
akash@Lenovo-PC:~$ sed '3s/Red/Blue/' exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ sed '1,4s/Red/BLUE/' exm.txt
Apple is red
mango is yellow
your dress is red
BLUE clor suits you
akash@Lenovo-PC:~$ sed '1,4s/red/BLUE/' exm.txt
Apple is BLUE
mango is yellow
your dress is BLUE
Red clor suits you
akash@Lenovo-PC:~$ sed '1,3s/red/BLUE/' exm.txt
```

```
Apple is BLUE
mango is yellow
your dress is BLUE
Red clor suits you
akash@Lenovo-PC:~$ echo "Another Demo" | sed 'i\First Demo'
First Demo
Another Demo
akash@Lenovo-PC:~$ echo "Another Demo" | sed 'a\First Demo'
Another Demo
First Demo
akash@Lenovo-PC:~$ sed '3c\This is modified line.' exm.txt
Apple is red
mango is yellow
This is modified line.
Red clor suits you
akash@Lenovo-PC:~$ sed '/Apple is /c Strawbery' exm.txt
Strawbery
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ sed 'y/abc/def/' exm.txt
Apple is red
mdngo is yellow
your dress is red
Red flor suits you
akash@Lenovo-PC:~$ sed '=' exm.txt
1
Apple is red
2
mango is yellow
3
your dress is red
4
Red clor suits you
akash@Lenovo-PC:~$ sed -n '/mango/=' exm.txt
```

Tee filter

```
cat weeks.txt | tee newfile.txt
sunday
monday
tuesday
wednesday
thursday
friday
saturday
`

akash@Lenovo-PC:~$ cat newfile.txt
sunday
monday
tuesday
wednesday
thursday
friday
saturday
`

akash@Lenovo-PC:~$ echo 'saturday and sunday are week offs' | tee -a newfile.txt
saturday and sunday are week offs
akash@Lenovo-PC:~$ cat newfile.txt
sunday
monday
tuesday
wednesday
thursday
friday
saturday
`

saturday and sunday are week offs
```

```
akash@Lenovo-PC:~$ ls ~/ | tee pipe1.txt | grep ^b | tee pipe2.txt |
sort -r
bin
akash@Lenovo-PC:~$ cat pipe
cat: pipe: No such file or directory
akash@Lenovo-PC:~$ cat pipe1.txt
1
184411_assign2.c
GREP.txt
SedCommands
a.out
argcheck.sh
args.sh
arithmaticops.sh
bin
calcu.sh
caseStat.sh
checknum.sh
checknum2.sh
checknum3.sh
checknum4.sh
exm.txt
file1.txt
file2.txt
file6
filetest2.sh
first.sh
fun.txt
hello.c
iffile.sh
iffile2.sh
iffile3.sh
ifpositive.sh
ifuser.sh
image
```

```
img
l1
l2
l3
l4
lookwho.sh
makefile
marks.txt
mkshar.sh
msg.txt
myscipt.sh
newfile.txt
out.txt
output.txt
pipe1.txt
pipe2.txt
sandbox
script1
shifter.sh
temp.txt
test.c
test1
test2
testfile.sh
tosend
weeks.txt
whilest.sh
whilest2.sh
yo
akash@Lenovo-PC:~$ cat pipe2.txt
bin
akash@Lenovo-PC:~$ echo "add text" | tee file1.txt file3.txt file4.txt
add text
akash@Lenovo-PC:~$ cat file3.txt
add text
```

akash@Lenovo-PC:~$ cat file4.txt
add text
akash@Lenovo-PC:~$ echo "SSSIHL MDH Campus" | tee file5.txt
SSSIHL MDH Campus
akash@Lenovo-PC:~$ cat file5.txt
SSSIHL MDH Campus
akash@Lenovo-PC:~$ echo "SSSIHL MDH Campus" | tee file5.txt >
/dev/null
akash@Lenovo-PC:~$ cat file5.txt
SSSIHL MDH Campus

Tr filter
cat exm.txt | tr 'pruc' 'PRUC'
APPle is Red
mango is yellow
yoUR dRess is Red
Red CloR sUits yoU
akash@Lenovo-PC:~$ cat > jtp.txt
Helllloo
Allllllll
akash@Lenovo-PC:~$ cat tjp.txt
cat: tjp.txt: No such file or directory
akash@Lenovo-PC:~$ cat jtp.txt
Helllloo
Allllllll
akash@Lenovo-PC:~$ cat jtp.txt | tr -s 'l'
Heloo
Al
akash@Lenovo-PC:~$ cat > spaces.txt
a b c   d e
f g h   i   j
k l   n m o
akash@Lenovo-PC:~$
akash@Lenovo-PC:~$ cat spaces.txt
a b c   d e

```
f g h   i   j
k  l   n m   o
akash@Lenovo-PC:~$ cat spaces.txt | tr -s ' '
a  b c   d e
f g h   i   j
k  l   n m   o
akash@Lenovo-PC:~$ cat spaces.txt | tr -s ' '
a b c d e
f g h i j
k l n m o
akash@Lenovo-PC:~$ cat weeks.txt | tr '\n' ' '
tr: when not truncating set1, string2 must be non-empty
akash@Lenovo-PC:~$ cat weeks.txt | tr '\n' ' '
sunday monday tuesday wednesday thursday friday saturday `
akash@Lenovo-PC:~$
akash@Lenovo-PC:~$ cat exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ cat exm.txt | tr 'a-z' 'eetbnrbefvfebrntngrbfv'
Atten fr gnb
berbn fr vneenv
vnfg bgnrr fr gnb
Rnb teng rffbr vnf
akash@Lenovo-PC:~$ cat exm.txt | tr -d o
Apple is red
mang is yellw
yur dress is red
Red clr suits yu
```

Uniq Command

```
akash@Lenovo-PC:~$ cat > dupli.txt
one
four
```

```
six
eight
four
nine
ten
one
akash@Lenovo-PC:~$
akash@Lenovo-PC:~$ sort dupli.txt
eight
four
four
nine
one
one
six
ten
akash@Lenovo-PC:~$ sort dupli.txt| uniq
eight
four
nine
one
six
ten
akash@Lenovo-PC:~$ sort dupli.txt | uniq -c
      1 eight
      2 four
      1 nine
      2 one
      1 six
      1 ten
akash@Lenovo-PC:~$ sort dupli.txt | uniq -d
four
one
akash@Lenovo-PC:~$ sort dupli.txt | uniq -u
eight
```

```
nine
six
ten
akash@Lenovo-PC:~$ cat dupli.txt
one
four
six
eight
four
nine
ten
one
akash@Lenovo-PC:~$ sort dupli.txt| uniq -s 2
eight
four
nine
one
six
ten
akash@Lenovo-PC:~$ cat > dupli.txt
This is carry
that is carry
carry is good for health
carry is green
akash@Lenovo-PC:~$
akash@Lenovo-PC:~$ cat  dupli.txt
This is carry
that is carry
carry is good for health
carry is green
akash@Lenovo-PC:~$ uniq -f 2 dupli2.txt
uniq: dupli2.txt: No such file or directory
akash@Lenovo-PC:~$ uniq -f 2 dupli.txt
This is carry
carry is good for health
```

carry is green

wc command
cat exm.txt
Apple is red
mango is yellow
your dress is red
Red clor suits you
akash@Lenovo-PC:~$ wc exm.txt
 4 14 66 exm.txt
akash@Lenovo-PC:~$ wc exm.txt marks.txt
  4 14 66 exm.txt
  6   6 53 marks.txt
 10 20 119 total
akash@Lenovo-PC:~$ wc exm.txt -l
4 exm.txt
akash@Lenovo-PC:~$ wc -l exm.txt
4 exm.txt
akash@Lenovo-PC:~$ wc -c exm.txt
66 exm.txt
akash@Lenovo-PC:~$ wc exm.txt -c
66 exm.txt
akash@Lenovo-PC:~$ wc exm.txt -w
14 exm.txt
akash@Lenovo-PC:~$ ls | wc -l
64
akash@Lenovo-PC:~$ wc -L exm.txt
18 exm.txt

sort command
cat weeks.txt
sunday
monday
tuesday
wednesday

thursday
friday
saturday
`

akash@Lenovo-PC:~$ sort weeks.txt
`

friday
monday
saturday
sunday
thursday
tuesday
wednesday
akash@Lenovo-PC:~$ cat > states.txt
uttar pradesh lucknow
madhyapradesh bhopal
bihar patna
assam meghalaya
sikkim agartala
akash@Lenovo-PC:~$
akash@Lenovo-PC:~$ sort -k1 states.txt
assam meghalaya
bihar patna
madhyapradesh bhopal
sikkim agartala
uttar pradesh lucknow
akash@Lenovo-PC:~$ sort -k2 states.txt
sikkim agartala
madhyapradesh bhopal
assam meghalaya
bihar patna
uttar pradesh lucknow
akash@Lenovo-PC:~$ cat > marks1.txt
a 67
b 37

```
c 20
d 86
e 70
f 47
g 97
h 38
i 50
akash@Lenovo-PC:~$ sort -n -k2  marks1.txt
c 20
b 37
h 38
f 47
i 50
a 67
e 70
d 86
g 97
akash@Lenovo-PC:~$ sort -r -k1  marks1.txt
i 50
h 38
g 97
f 47
e 70
d 86
c 20
b 37
a 67
akash@Lenovo-PC:~$ sort -r -k2  marks1.txt
g 97
d 86
e 70
a 67
i 50
f 47
h 38
```

b 37
c 20

gzip command

ls file*.*
file1.txt file2.txt file3.txt file4.txt file5.txt filetest2.sh
akash@Lenovo-PC:~$ gzip file1.txt file2.txt
akash@Lenovo-PC:~$ ls file*.*
file1.txt.gz file2.txt.gz file3.txt file4.txt file5.txt filetest2.sh
akash@Lenovo-PC:~$ gunzip file1.txt file2.txt
akash@Lenovo-PC:~$ ls file*.*
file1.txt file2.txt file3.txt file4.txt file5.txt filetest2.sh
akash@Lenovo-PC:~$ ls f*.*
file1.txt file2.txt file3.txt file4.txt file5.txt filetest2.sh first.sh
format.txt fun.txt
akash@Lenovo-PC:~$ cat file1.txt file2.txt | gzip > final.gz
akash@Lenovo-PC:~$ ls f*.*
file1.txt file2.txt file3.txt file4.txt file5.txt filetest2.sh final.gz
first.sh format.txt fun.txt
akash@Lenovo-PC:~$ gzip -l final.gz
        compressed   uncompressed ratio uncompressed_name
           56   36 -5.6% final
akash@Lenovo-PC:~$ touch metacharacters
akash@Lenovo-PC:~$ tar -cvfz metacharacters/ | gzip >
metacharacters.tar.gz
akash@Lenovo-PC:~$ ls metacharacters.*
metacharacters.tar.gz
akash@Lenovo-PC:~$ tar -cvf metacharacters.tar.gz metacharacters/
metacharacters
akash@Lenovo-PC:~$ ls metacharacters.*
metacharacters.tar.gz