

## Linux Commands

Grep command: Searches a file for a particular pattern of characters, and displays all the lines that contains that pattern

The image consists of three vertically stacked screenshots of a text editor window. Each screenshot shows a dark-themed interface with a toolbar at the top containing 'Open', 'Save', and other standard file operations. The title bar for each instance is labeled 'data', 'data1', and 'data2' respectively, with the subtitle '~/Desktop/demo' underneath.

**File 'data':**

```
1 Linux is a family of open-source unix-like operating systems
2 based on linux kernel, an operating system first
3 released on sept 17 by Linus torvalds
4 with any Linux system, managing the system software is
5 a major part of keeping the system linux
6 everything in linux is connected on to OPERATING SYSTEM
7 linux is the major part
8 unix is similar to linux
9
```

**File 'data1':**

```
1 Linux is a family of open-source unix-like operating systems
2 based on linux kernel, an operating system first
3 released on sept 17 by Linus torvalds
4 with any Linux system, managing the system software is
5 a major part of keeping the system linux
6 everything in linux is connected on to OPERATING SYSTEM
7 linux is the major part
8 unix is similar to linux
9
```

**File 'data2':**

```
1 Linux is a family of open-source unix-like operating systems
2 based on linux kernel, an first
3 released on sept 17 by Linus torvalds
4 with any Linux system, managing the system software is
5 a major part of keeping the system linux
6 everything in linux is connected on to
7 linux is the major part
8 unix is similar to linux opera|
```

```
user@user-virtual-machine:~/Desktop$ cd ..
user@user-virtual-machine:~$ grep 'Linux' 'Desktop/demo/data'
Linux is a family of open-source unix-like operating systems
with any Linux system, managing the system software is
user@user-virtual-machine:~$ █
```

```
user@user-virtual-machine:~$ grep -i 'Linux' 'Desktop/demo/data'
Linux is a family of open-source unix-like operating systems
based on linux kernel, an operating system first
with any Linux system, managing the system software is
a major part of keeping the system linux
everything in linux is connected on to OPERATING SYSTEM
linux is the major part
unix is similar to linux
user@user-virtual-machine:~$ █
```

```
user@user-virtual-machine:~$ grep -i 'Linux' 'Desktop/demo/data'
Linux is a family of open-source unix-like operating systems
based on linux kernel, an operating system first
with any Linux system, managing the system software is
a major part of keeping the system linux
everything in linux is connected on to OPERATING SYSTEM
linux is the major part
unix is similar to linux
user@user-virtual-machine:~$ grep -c 'Linux' 'Desktop/demo/data'
2
user@user-virtual-machine:~$ █
```

```
user@user-virtual-machine:~$ cd Desktop
user@user-virtual-machine:~/Desktop$ grep -l 'Linux' *
grep: demo: Is a directory
user@user-virtual-machine:~/Desktop$ █
```

```
user@user-virtual-machine:~/Desktop$ cd demo
user@user-virtual-machine:~/Desktop/demo$ grep -i -l 'Operating System' data d
ata1 data2
data
data1
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -w 'opera' data1
user@user-virtual-machine:~/Desktop/demo$ grep -w 'operating' data1 data2
data1:based on linux kernel, an operating system first
user@user-virtual-machine:~/Desktop/demo$ grep -w 'operating' data1 data
data1:based on linux kernel, an operating system first
data:based on linux kernel, an operating system first
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -o 'operating' data
operating
user@user-virtual-machine:~/Desktop/demo$ grep -o 'opera' data
opera
opera
user@user-virtual-machine:~/Desktop/demo$ grep -o 'opera' data1
opera
opera
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ow 'opera' data1
user@user-virtual-machine:~/Desktop/demo$ grep -ow 'operating' data1
operating
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -o -i 'Linux' data1 data data2
data1:Linux
data1:linux
data1:Linux
data1:linux
data1:linux
data1:linux
data1:linux
data1:linux
data:Linux
data:linux
data:Linux
data:linux
data:linux
data:linux
data:linux
data:linux
data2:Linux
data2:linux
data2:Linux
data2:linux
data2:linux
data2:linux
data2:linux
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -owi 'operating' data1 data data2
2
data1:operating
data1:OPERATING
data:operating
data:OPERATING
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -i 'Linux' data1
1:Linux is a family of open-source unix-like operating systems
2:based on linux kernel, an operating system first
4:with any Linux system, managing the system software is
5:a major part of keeping the system linux
6:everything in linux is connected on to OPERATING SYSTEM
7:linux is the major part
8:unix is similar to linux
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -niw 'Opera' data2 data1
data2:8:unix is similar to linux opera
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -nio 'Opera' data2 data1
data2:1:opera
data2:8:opera
data1:1:opera
data1:2:opera
data1:6:OPERA
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -niwo 'Opera' data2 data1
data2:8:opera
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -v 'Linux' data data1
data:based on linux kernel, an operating system first
data:released on sept 17 by Linus torvalds
data:a major part of keeping the system linux
data:everything in linux is connected on to OPERATING SYSTEM
data:linux is the major part
data:unix is similar ti linux
data:
data1:based on linux kernel, an operating system first
data1:released on sept 17 by Linus torvalds
data1:a major part of keeping the system linux
data1:everything in linux is connected on to OPERATING SYSTEM
data1:linux is the major part
data1:unix is similar ti linux
data1:
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -vi 'Linux' data2
released on sept 17 by Linus torvalds
```

```
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -vin 'Linux' data2
3:released on sept 17 by Linus torvalds
user@user-virtual-machine:~/Desktop/demo$ grep -vin 'Linux' data
3:released on sept 17 by Linus torvalds
9:
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -vino 'Linux' data
user@user-virtual-machine:~/Desktop/demo$ grep -vino 'Linux' data2
user@user-virtual-machine:~/Desktop/demo$ grep -vino 'Linux' data1
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -i '^Linux' data
Linux is a family of open-source unix-like operatong systems
linux is the major part
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -in 'Linux$' data
5:a major part of keeping the system linux
8:unix is similar ti linux
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep '^Linux' data data2
data:Linux is a family of open-source unix-like operatong systems
data2:Linux is a family of open-source unix-like operatong systems
user@user-virtual-machine:~/Desktop/demo$ █
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -i "^linux.*os$" f1
2:Linux is an os
user@user-virtual-machine:~/Desktop/demo$ grep -n -i "^os.*os$" f1
5:OSHello i am linux as os
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine: ~/Desktop/demo user@user-virtual-machine: ~/Desktop/demo
user@user-virtual-machine:~/Desktop/demo$ grep "os" f1
os is very important
user@user-virtual-machine:~/Desktop/demo$ grep -n -i "os" f1
5:OSHello i am linux as os
7:Os full form is operating system
8:os is very important
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -in 'tem$' data data2
data:6:everything in linux is connected on to OPERATING SYSTEM
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "os .* os$" f1
19:os is an os
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine: ~/Desktop/demo user@user-virtual-machine: ~/Desktop/demo
user@user-virtual-machine:~/Desktop/demo$ grep 'linux' data1
based on linux kernel, an operating system first
a major part of keeping the system linux
everything in linux is connected on to OPERATING SYSTEM
linux is the major part
unix is similar to linux
user@user-virtual-machine:~/Desktop/demo$ grep 'operating' data1
based on linux kernel, an operating system first
user@user-virtual-machine:~/Desktop/demo$ grep 'opera' data1
Linux is a family of open-source unix-like operating systems
based on linux kernel, an operating system first
user@user-virtual-machine:~/Desktop/demo$
```

```
1 Unix is an os
2 Linux is an os
3 Both linux and unix are os
4 Hello i am linux os
5 OSHello i am linux as os
6 Hey there this is OS
7 Os full form is operating system
8 os is very important
9 co ca
10 cooory
11 curry
12 hiiiiiip
13 hiiilp
14 hello
15 hillip
16 hillo
17 coca
18 coco[]
19 hello.
20 hey[]
21 os is an os
22 hip
23 hel
24 hol
25 hll
26 hrleo
27 hrrrrro
```

F4 F2

```
1 Unix is an os
2 Linux is an os
3 Both linux and unix are os
4 Hello i am linux os
5 OSHello i am linux as os
6 Hey there this is OS
7 Os full form is operating system
8 os is very important
9 co ca
10 linux
11 cocaaa[]
12 hp
13 helloo
14 hillo
15 |
```

```
*f4
~/Desktop/sa
```

\*f4

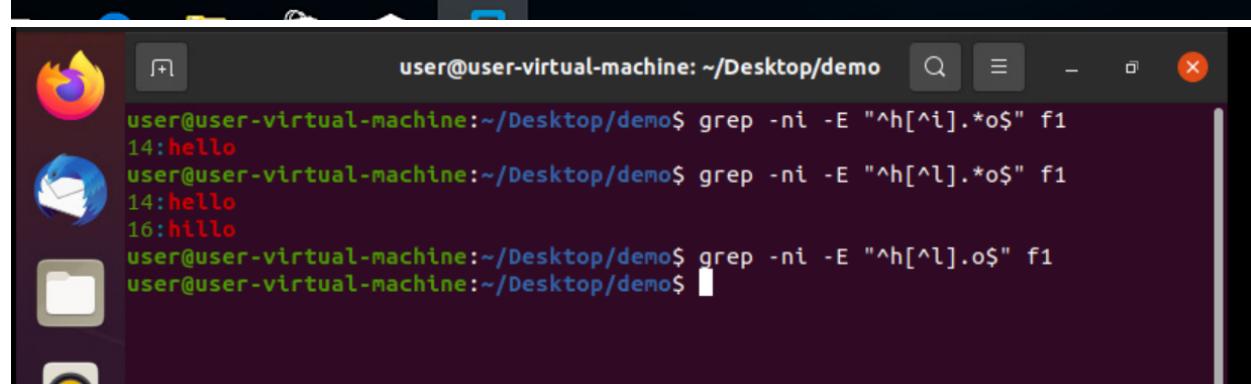
```
1 Hello, I am human, sandhya is my name.
2 i love coding.
3 I am an {human}
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -i "os$" f1
1:Unix is an os
2:Linux is an os
3:Both linux and unix are os
4>Hello i am linux os
5:OSHello i am linux as os
6:Hey there this is os
user@user-virtual-machine:~/Desktop/demo$ █

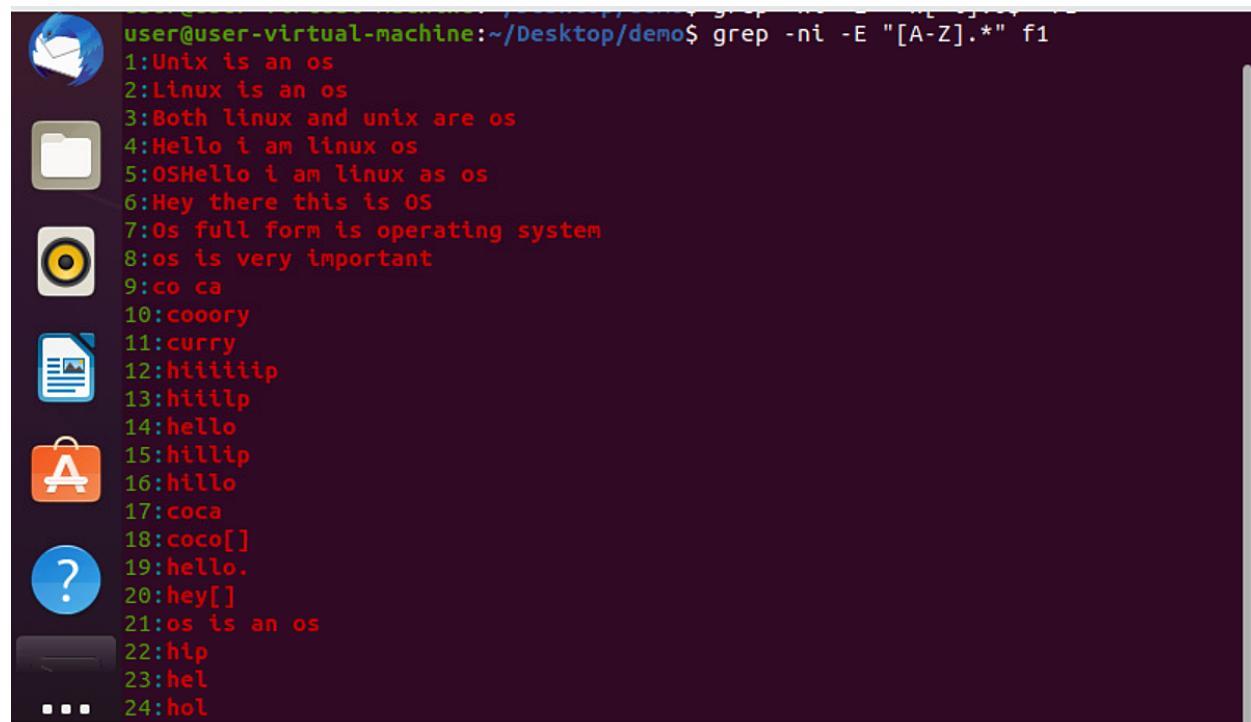
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^h.p$" f1
20:hip
user@user-virtual-machine:~/Desktop/demo$ █

user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^c. .a$" f1
9:co ca
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^h.p$" f1
20:hip
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^h...p$" f1
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h.p$" f1
20:hip
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h[i]p$" f1
20:hip
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h[io]p$" f1
22:hip
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h[el]p$" f1
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h[el]p$" f1
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h[el]l$" f1
23:hel
25:hll
user@user-virtual-machine:~/Desktop/demo$ █
t.
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h.*l$" f1
23:hel
24:hol
25:hll
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "h.*p$" f1
12:hiiliip
13:hiilp
15:hillip
22:hip
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^\h.[i]*p$" f1
12:hiiiiip
22:hip
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^\h[i]*p$" f1
12:hiiiiip
22:hip
user@user-virtual-machine:~/Desktop/demo$
```



```
user@user-virtual-machine: ~/Desktop/demo
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^\h[^i].*o$" f1
14:hello
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^\h[^l].*o$" f1
14:hello
16:hillo
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^\h[^l].o$" f1
user@user-virtual-machine:~/Desktop/demo$
```



```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "[A-Z].*" f1
1:Unix is an os
2:Linux is an os
3:Both linux and unix are os
4>Hello i am linux os
5:OSHello i am linux as os
6:Hey there this is OS
7:Os full form is operating system
8:os is very important
9:co ca
10:cooory
11:curry
12:hiiiiip
13:hiiilp
14:hello
15:hillip
16:hillo
17:coca
18:coco[]
19:hello.
20:hey[]
21:os is an os
22:hip
23:hel
24:hol
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^[A-Z].*" f1
1:Unix is an os
2:Linux is an os
3:Both linux and unix are os
4>Hello i am linux os
5:OSHello i am linux as os
6:Hey there this is OS
7:Os full form is operating system
8:os is very important
9:co ca
10:cooory
11:curry
12:hiiiiip
13:hiiilp
14:hello
15:hillip
16:hillo
17:coca
18:coco[]
19:hello.
20:hey[]
21:os is an os
22:hip
23:hel
24:hol
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E "^[a-c].*" f1
3:Both linux and unix are os
9:co ca
10:cooory
11:curry
17:coca
18:coco[]
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E "^[a-z].*" f1
8:os is very important
9:co ca
10:cooory
11:curry
12:hiiiiip
13:hiiilp
14:hello
15:hillip
16:hillo
17:coca
18:coco[]
19:hello.
20:hey[]
21:os is an os
22:hip
23:hel
24:hol
25:hll
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E "^[A-Z].*" f1
1:Unix is an os
2:Linux is an os
3:Both linux and unix are os
4>Hello i am linux os
5:OSHello i am linux as os
6:Hey there this is OS
7:Os full form is operating system
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E "\[\]$" f1
18:coco[]
20:hey[]
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E "\.$" f1
19:hello.
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -i -E "^(h[^l]*o$" f1
user@user-virtual-machine:~/Desktop/demo$ grep -i -E "^(h[^l]*o$" f1
user@user-virtual-machine:~/Desktop/demo$ grep -i -E "^(h[^l]*o$" f1
hrrrro
user@user-virtual-machine:~/Desktop/demo$
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -c 1 f2
U
L
B
H
O
H
O
o
c
l
c
h
h
h
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -c 1,4 f2
Ux
Lu
Bh
Hl
Oe
H
Of
oi
cc
lu
ca
h
hl
hl
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -c 4- f2
x is an os
ux is an os
h linux and unix are os
lo i am linux os
ello i am linux as os
there this is OS
full form is operating system
is very important
ca
ux
aaa[ ]

loo
lo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -c -5 f2
Unix
Linux
Both
Hello
OSHel
Hey t
Os fu
os is
co ca
linux
cocaa
hp
hello
hillo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -b 5-9 f2
is a
x is
linu
o i a
llo i
there
ull f
s ver
a
x
aa[]

oo
o
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d 's' -f 1 f2
Unix i
Linux i
Both linux and unix are o
Hello i am linux o
OSHello i am linux a
Hey there thi
o
o
co ca
linux
cocaaa[]
hp
helloo
hillo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -c 2-3,5- f2
ni is an os
inx is an os
ot linux and unix are os
elo i am linux os
SHllo i am linux as os
eythere this is OS
s ull form is operating system
s s very important
o a
inx
ocaa[ ]
p
eloo
ilo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 3 f2
an
an
and
am
am
this
form
very

linux
cocaaa[]
hp
helloo
hillo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1-3  f2
Unix is an
Linux is an
Both linux and
Hello i am
OSHello i am
Hey there this
Os full form
os is very
co ca
linux
cocaaa[]
hp
helloo
hilllo
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d '.' -f 1  f2
cut: the delimiter must be a single character
Try 'cut --help' for more information.
user@user-virtual-machine:~/Desktop/sample$ cut -d '.' -f 1  f2
Unix is an os
Linux is an os
Both linux and unix are os
Hello i am linux os
OSHello i am linux as os
Hey there this is OS
Os full form is operating system
os is very important
co ca
linux
cocaaa[]
hp
helloo
hilllo
```

```
user@user-virtual-machine:~$ cd Desktop
user@user-virtual-machine:~/Desktop$ cd sample
user@user-virtual-machine:~/Desktop/sample$ cut --complement -c 1,5 f4
ell, I am human, sandhya is my name.
loe coding.
aman {human}
```

```
user@user-virtual-machine:~/Desktop/sample$ cut --complement -c 5- f4
Hell
i lo
I am
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1 f4
Hello,
i
I
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f 1 f4
I am human, sandhya is my name.
love coding.
am an {human}
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f 3- f4
Hello, I
i love
I am
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f -1 f4
I am human, sandhya is my name.
love coding.
am an {human}
user@user-virtual-machine:~/Desktop/sample$ cut --complement -b 3 f4
Helo, I am human, sandhya is my name.
i ove coding.
I m an {human}
user@user-virtual-machine:~/Desktop/sample$ cut --complement -b 1-5 f4
, I am human, sandhya is my name.
e coding.
an {human}
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1-2 f4 --output-delim
iter='*'
Hello,*I
i*love
I*am
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f 1-2 f4
--output-delimiter='*'
am*human,*sandhya*is*my*name.
coding.
an*{human}
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f 1-2 f4
--output-delimiter='6'
am6human,6sandhya6is6my6name.
coding.
an6{human}
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1-2 f4 --output-delim
iter='+' > new
user@user-virtual-machine:~/Desktop/sample$ cut --complement -d ' ' -f 1-2 f4
--output-delimiter='+' > new
```

```
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 3 f4
am
coding.
an
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 3 f4 | sort
am
an
coding.
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 3 f4 | sort -r
coding.
an
am
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1-3 f4 | sort -r
i love coding.
I am an
Hello, I am
user@user-virtual-machine:~/Desktop/sample$ cut -d ' ' -f 1-3 f4 | sort
Hello, I am
I am an
i love coding.
```

```
user@user-virtual-machine:~/Desktop/sample$ cat f4|tr '[:lower:]' '[:upper:]'
HELLO, I AM HUMAN, SANDHYA IS MY NAME.
I LOVE CODING.
I AM AN {HUMAN}
user@user-virtual-machine:~/Desktop/sample$ echo "hello"|tr '[:lower:]' '[:upper:]'
HELLO
user@user-virtual-machine:~/Desktop/sample$ echo "hello"|tr '[:space:]' '\t'
hello    user@user-virtual-machine:~/Desktop/sample$ echo "hello"|tr '[:space:]'
'\n'
hello
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[:space:]' '\n'
Hello,
I
am
human,
sandhya
is
my
name.
i
love
coding.
I
am
an
{human}
```

```
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[:space:]' '\t'
Hello, I am human, sandhya is my name. i love c
oding. I am an {human} user@user-virtual-machine:~/Desktop/sam
ple$ cat f4 | tr '[:space:]' '\n'

user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr 'i' 'g'
Hello, I am human, sandhya gs my name.
g love codgng.
I am an {human}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[iI]' 's'
Hello, s am human, sandhya ss my name.
s love codsng.
s am an {human}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[iI]' 'gs'
Hello, s am human, sandhya ss my name.
s love codsng.
s am an {human}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[hu]' 'gs'
Hello, I am ssman, sandsya is my name.
i love coding.
I am an {ssman}

user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[hu]' 'gs'
Hello, I am ssman, sandsya is my name.
i love coding.
I am an {ssman}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '[hHii]' '[ojoJ]'
jello, O am ouman, sandoya Js my name.
J love codJng.
O am an {ouman}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr 'hello' 'laaa'
Haaaa, I am luman, sandlyya is my nama.
i aava cading.
I am an {luman}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr 'mel' 'l'
Hlllo, I al hulan, sandhya is ly nall.
i lovl coding.
I al an {hulan}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr '{}' '()'
Hello, I am human, sandhya is my name.
i love coding.
I am an (human)

user@user-virtual-machine:~/Desktop/sample$ cat f4
Hello, I am human, sandhya is my name.
i love coding.
I am an {human}
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -s [:space:] ''
Hello, I am human, sandhya is my name. i love coding. I am an {human} user@user
-virtual-machine:~/Desktop/sample$ cat f4 | tr -d 'I'
Hello, am human, sandhya is my name.
i love coding.
am an {human}
```

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user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d 'Hello, I am human, sandhya is my name.  
i ov coding.  
I am an {human}  
  
user@user-virtual-machine:~/Desktop/sample$ cat f4  
Hello, I am human, sandhya is my name.  
678i love coding.  
I am an {human}  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[:digit:]'  
Hello, I am human, sandhya is my name.  
i love coding.  
I am an {human}  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[:upper:]'  
ello, am human, sandhya is my name.  
678i love coding.  
am an {human}  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[:lower:]'  
H, I , .  
678 .  
I {}  
  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[A-G]'  
Hello, I am human, sandhya is my name.  
678i love coding.  
I am an {human}  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[g-s]'  
He, I a ua, adya y ae.  
678 ve cd.  
I a a {ua}  
user@user-virtual-machine:~/Desktop/sample$ cat f4 | tr -d '[:upper:][:digit:]'  
ello, am human, sandhya is my name.  
i love coding.  
am an {human}  
user@user-virtual-machine:~/Desktop/sample$
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user@user-virtual-machine:~/Desktop/sample$ more flower
A flower, sometimes known as a bloom or blossom, is the reproductive structure found in flowering plants (plants of the division Magnoliophyta, also called angiosperms). The biological function of a flower is to facilitate reproduction, usually by providing a mecsperm with eggs. Flowers may facilitate outcrossing (fusion of sperm and eggs from different individuals in a population) resulting from cross-pollination or allow selfing (fusion of sperm and egg from the same flower) when self-pollination occurs.
The two types of pollination are: self-pollination and cross-pollination. Self-pollination happens when the pollen from the anther is deposited on the stigma of the same flower, or another flower on the same plant. Cross-pollination is the transfer of pollen from the anther of one flower to the stigma of another flower on a different individual of the same species. Se
Flower is from the Middle English flour, which referred to both the ground grain and the reproductive structure in plants, before splitting off in the 17th century. It comes originally from the Latin name of the Italian goddess of flowers, Flora. The early word for flower in English was blossom, though it now refers to flowers only of fruit trees.
The flower has two essential parts: the vegetative part, consisting of petals and associated structures in the perianth, and the reproductive or sexual parts.
A stereotypical flower consists of four kinds of structures attached to the ti
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The flower has two essential parts: the vegetative part, consisting of petals and associated structures in the perianth, and the reproductive or sexual parts.
A stereotypical flower consists of four kinds of structures attached to the tip of a short stalk. Each of these kinds of parts is arranged in a whorl on the receptacle. The four main whorls (starting from the base of the flower or lowest node and working upwards) are as follows:
Perianth
Main articles: Perianth, Sepal, and Corolla (flower)
Collectively the calyx and corolla form the perianth (see diagram).
Calyx: the outermost whorl consisting of units called sepals; these are typically green and enclose the rest of the flower in the bud stage, however, they can
--More--(21%)[Press space to continue, 'q' to quit.]
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--More--(21%)

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Although the arrangement described above is considered "typical", plant species show a wide variation in floral structure.[5] These modifications have significance in the evolution of flowering plants and are used extensively by botanists to establish relationships among plant species.

The four main parts of a flower are generally defined by their positions on the receptacle and not by their function. Many flowers lack some parts or parts may be modified into other functions and/or look like what is typically another part. In some families, like Ranunculaceae, the petals are greatly reduced and in many species the sepals are colorful and petal-like. Other flowers have modified stamens that are petal-like; the double flowers of Peonies and Roses are mostly petaloid stamens.[6] Flowers show great variation and plant scientists describe this variation in a systematic way to identify and distinguish species.

Specific terminology is used to describe flowers and their parts. Many flower parts are fused together; fused parts originating from the same whorl are connate, while fused parts originating from different whorls are adnate; parts that are not fused are free. When petals are fused into a tube or ring that falls away as a single unit, they are sympetalous (also called gamopetalous). Connate petals may have distinctive regions: the cylindrical base is the tube, the expanding region is the throat and the flaring outer region is the limb. A sympetalous flower, with bilateral symmetry with an upper and lower lip, is bilabiate. Flowers with connate petals or sepals may have various shaped corolla or calyx, including campanulate, funnelform, tubular, urceolate, salverform or rotate.

Referring to "fusion," as it is commonly done, appears questionable because at

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