```
2. 2
sunbeam@sunbeam-niraj:~/Downloads/a1$ factor 1123546
1123546: 2 19 29567
sunbeam@sunbeam-niraj:~/Downloads/a1$ alias
alias alert='notify-send --urgency=low -i "$([ $? = 0 ] && echo terminal || echo error)" "$(history|tail
-n1|sed -e '\''s/^\s*[0-9]\+\s*//;s/[;&|]\s*alert$//'\'')"'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -alF'
alias ls='ls --color=auto'
sunbeam@sunbeam-niraj:~/Downloads/a1$ echo

sunbeam@sunbeam-niraj:~/Downloads/a1$ ps
    PID TTY          TIME CMD
   5632 pts/1    00:00:00 bash
   6563 pts/1    00:00:00 ps
sunbeam@sunbeam-niraj:~/Downloads/a1$ kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill -l [sigspec]
sunbeam@sunbeam-niraj:~/Downloads/a1$ env
SHELL=/bin/bash
SESSION_MANAGER=local/sunbeam-niraj:@/tmp/.ICE-unix/1764,unix/sunbeam-niraj:/tmp/.ICE-unix/1764
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
SSH_AGENT_LAUNCHER=gnome-keyring
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
LANGUAGE=en_IN:en
GNOME_SHELL_SESSION_MODE=ubuntu
SSH_AUTH_SOCK=/run/user/1000/keyring/ssh
XMODIFIERS=@im=ibus
DESKTOP_SESSION=ubuntu
GTK_MODULES=gail:atk-bridge
PWD=/home/sunbeam/Downloads/a1
LOGNAME=sunbeam
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=1799
XAUTHORITY=/run/user/1000/.mutter-Xwaylandauth.IPAUF2
HOME=/home/sunbeam
USERNAME=sunbeam
IM_CONFIG_PHASE=1
LANG=en_IN
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=
00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;31:*.a
rj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:*.lzh=01;31:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31
:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lz=01;31:*.lzo=01;31:*.xz=01;31:*.
zst=01;31:*.tzst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31
:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=0
1;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg
=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35
:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=
01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:
```

NAME
       man - an interface to the system reference manuals

SYNOPSIS
       man [man options] [[section] page ...] ...
       man -k [apropos options] regexp ...
       man -K [man options] [section] term ...
       man -f [whatis options] page ...
       man -l [man options] file ...
       man -w|-W [man options] page ...

DESCRIPTION
       man is the system's manual pager. Each page argument given to **man** is normally the name of a
       program, utility or function. The manual page associated with each of these arguments is then
       found and displayed. A section, if provided, will direct **man** to look only in that section of
       the manual. The default action is to search in all of the available sections following a pre-
       defined order (see **DEFAULTS**), and to show only the first page found, even if page exists in
       several sections.

       The table below shows the section numbers of the manual followed by the types of pages they
       contain.

       1   Executable programs or shell commands
       2   System calls (functions provided by the kernel)
       3   Library calls (functions within program libraries)
       4   Special files (usually found in /dev)
       5   File formats and conventions, e.g. /etc/passwd
       6   Games
       7   Miscellaneous   (including   macro   packages and conventions), e.g. **man**(7), **groff**(7),
            man-pages(7)
       8   System administration commands (usually only for root)
       9   Kernel routines [Non standard]

       A manual page consists of several sections.

       Conventional section names include **NAME, SYNOPSIS, CONFIGURATION, DESCRIPTION, OPTIONS,**
       EXIT STATUS, RETURN VALUE, ERRORS, ENVIRONMENT, FILES, VERSIONS, CONFORMING TO, NOTES, BUGS,
       EXAMPLE, AUTHORS, and **SEE ALSO.**

       The following conventions apply to the **SYNOPSIS** section and can be used as a guide in other
       sections.

       bold text   type exactly as shown.
       italic text   replace with appropriate argument.
       [**-abc**]   any or all arguments within [ ] are optional.
       -a|-b   options delimited by | cannot be used together.
       argument ...   argument is repeatable.
       [expression] ...   entire expression within [ ] is repeatable.

       Exact rendering may vary depending on the output device. For instance, man will usually not be
       able to render italics when running in a terminal, and will typically use underlined or
       coloured text instead.
 Manual page man(1) line 1 (press h for help or q to quit)

```
sunbeam@sunbeam-niraj:~$ man
What manual page do you want?
For example, try 'man man'.
sunbeam@sunbeam-niraj:~$ man man
sunbeam@sunbeam-niraj:~$ man man
sunbeam@sunbeam-niraj:~$ uname
Linux
sunbeam@sunbeam-niraj:~$ pwd
/home/sunbeam
sunbeam@sunbeam-niraj:~$ hostname
sunbeam-niraj
sunbeam@sunbeam-niraj:~$ date
Wednesday 06 December 2023 04:49:40 PM IST
sunbeam@sunbeam-niraj:~$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
sunbeam@sunbeam-niraj:~$ sudo apt install ncal
[sudo] password for sunbeam:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  ncal
0 upgraded, 1 newly installed, 0 to remove and 42 not upgraded.
Need to get 20.2 kB of archives.
After this operation, 69.6 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 ncal amd64 12.1.7+nmu3ubuntu2 [20.2 kB]
Fetched 20.2 kB in 2s (11.5 kB/s)
Selecting previously unselected package ncal.
(Reading database ... 218461 files and directories currently installed.)
Preparing to unpack .../ncal_12.1.7+nmu3ubuntu2_amd64.deb ...
Unpacking ncal (12.1.7+nmu3ubuntu2) ...
Setting up ncal (12.1.7+nmu3ubuntu2) ...
Processing triggers for man-db (2.10.2-1) ...
sunbeam@sunbeam-niraj:~$ cal
    December 2023
Su Mo Tu We Th Fr Sa
                1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31
sunbeam@sunbeam-niraj:~$  cal -3
    November 2023          December 2023          January 2024
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa
          1  2  3  4                  1  2       1  2  3  4  5  6
 5  6  7  8  9 10 11    3  4  5  6  7  8  9    7  8  9 10 11 12 13
12 13 14 15 16 17 18   10 11 12 13 14 15 16   14 15 16 17 18 19 20
19 20 21 22 23 24 25   17 18 19 20 21 22 23   21 22 23 24 25 26 27
26 27 28 29 30         24 25 26 27 28 29 30   28 29 30 31
                       31
```

```
sunbeam@sunbeam-niraj:~$ ls
 ans              Downloads              hs_err_pid6031.log   'mysql pl 7 exercise'      snap
 assignment21     hs_err_pid2696.log    'jwt token'           Pictures                  'SQL EXERCISE 1'
 Desktop          hs_err_pid4204.log    'matrix addition'     Practice                   sunbeampull
'Docs upload'     hs_err_pid4378.log     Music                Public                     Templates
 Documents        hs_err_pid5621.log     __MyResume__.pdf     remDsa                     Videos
sunbeam@sunbeam-niraj:~$ dir
ans              Downloads              hs_err_pid6031.log   mysql\ pl\ 7\ exercise   snap
assignment21     hs_err_pid2696.log    jwt\ token            Pictures                 SQL\ EXERCISE\ 1
Desktop          hs_err_pid4204.log    matrix\ addition      Practice                 sunbeampull
Docs\ upload     hs_err_pid4378.log    Music                 Public                   Templates
Documents        hs_err_pid5621.log    __MyResume__.pdf      remDsa                   Videos
sunbeam@sunbeam-niraj:~$ cd Downloads
sunbeam@sunbeam-niraj:~/Downloads$ ls
'12th marklist.pdf'
'2. Format for My Resume Video Recording (1).pdf'
 antipolygon-youtube-i9pqOAcQPow-unsplash.jpg
'Cdac resume-1.pdf'
'FORMAT FOR MY RESUME VIDEO RECORDING.docx'
 GreenGrocer.db
 ikshit-chaudhari-CmM-yZasjaQ-unsplash.jpg
 jonathan-castaneda-xUw6ss4dPrM-unsplash.jpg
 __MyResume__.docx
 __MyResume__.pdf
'node installation steps.txt'
 node-v20.10.0-linux-x64
 node-v20.10.0-linux-x64.tar.xz
 omid-armin-6Aw1X7q1sbA-unsplash.jpg
 omid-armin-R-4vz6I1TAQ-unsplash.jpg
 paymentReceipt1.pdf
 Picsart_23-09-25_20-35-18-500.jpg
 rohan-i6Su3pEmQkg-unsplash.jpg
 silas-schneider-vOlP-RvKNfQ-unsplash.jpg
 spring-tool-suite-3.9.18.RELEASE-e4.21.0-linux-gtk-x86_64
'Stock Price Prediction'
'Uploading Documents in MIS.pdf'
'WhatsApp Image 2023-11-28 at 18.15.52.jpeg'
'WhatsApp Image 2023-11-28 at 18.24.38.jpeg'
sunbeam@sunbeam-niraj:~/Downloads$
```

```
sunbeam@sunbeam-niraj:~/Downloads$ cat > assignment1.txt
This is assignment 1sunbeam@sunbeam-niraj:~/Downloads$ ls
'12th marklist.pdf'
'2. Format for My Resume Video Recording (1).pdf'
 antipolygon-youtube-i9pqOAcQPow-unsplash.jpg
 assignment1.txt
'Cdac resume-1.pdf'
'FORMAT FOR MY RESUME VIDEO RECORDING.docx'
 GreenGrocer.db
 ikshit-chaudhari-CmM-yZasjaQ-unsplash.jpg
 jonathan-castaneda-xUw6ss4dPrM-unsplash.jpg
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 __MyResume__.pdf
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 omid-armin-R-4vz6I1TAQ-unsplash.jpg
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 silas-schneider-vOlP-RvKNfQ-unsplash.jpg
 spring-tool-suite-3.9.18.RELEASE-e4.21.0-linux-gtk-x86_64
'Stock Price Prediction'
 test.text
 test.txt
'Uploading Documents in MIS.pdf'
'WhatsApp Image 2023-11-28 at 18.15.52.jpeg'
'WhatsApp Image 2023-11-28 at 18.24.38.jpeg'
sunbeam@sunbeam-niraj:~/Downloads$ cat >> assignment1.txt
Appended textsunbeam@sunbeam-niraj:~/Downloads$
sunbeam@sunbeam-niraj:~/Downloads$ cp assignment1.txt
cp: missing destination file operand after 'assignment1.txt'
Try 'cp --help' for more information.
sunbeam@sunbeam-niraj:~/Downloads$ cp assignment1.txt assignment1copy.txt
sunbeam@sunbeam-niraj:~/Downloads$ ls
'12th marklist.pdf'
'2. Format for My Resume Video Recording (1).pdf'
 antipolygon-youtube-i9pqOAcQPow-unsplash.jpg
 assignment1copy.txt
 assignment1.txt
'Cdac resume-1.pdf'
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 jonathan-castaneda-xUw6ss4dPrM-unsplash.jpg
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 __MyResume__.pdf
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 node-v20.10.0-linux-x64.tar.xz
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 omid-armin-R-4vz6I1TAQ-unsplash.jpg
 paymentReceipt1.pdf
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 rohan-i6Su3pEmQkg-unsplash.jpg
```

```
 GreenGrocer.db
 ikshit-chaudhari-CmM-yZasjaQ-unsplash.jpg
 jonathan-castaneda-xUw6ss4dPrM-unsplash.jpg
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 test.txt
'Uploading Documents in MIS.pdf'
'WhatsApp Image 2023-11-28 at 18.15.52.jpeg'
'WhatsApp Image 2023-11-28 at 18.24.38.jpeg'
sunbeam@sunbeam-niraj:~/Downloads$ mv assignment1.txt test.txt
sunbeam@sunbeam-niraj:~/Downloads$ ls
'12th marklist.pdf'
'2. Format for My Resume Video Recording (1).pdf'
 antipolygon-youtube-i9pqOAcQPow-unsplash.jpg
 assignment1copy.txt
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 silas-schneider-vOlP-RvKNfQ-unsplash.jpg
 spring-tool-suite-3.9.18.RELEASE-e4.21.0-linux-gtk-x86_64
'Stock Price Prediction'
 test.text
 test.txt
'Uploading Documents in MIS.pdf'
'WhatsApp Image 2023-11-28 at 18.15.52.jpeg'
'WhatsApp Image 2023-11-28 at 18.24.38.jpeg'
sunbeam@sunbeam-niraj:~/Downloads$ mv text.txt OSC
mv: cannot stat 'text.txt': No such file or directory
sunbeam@sunbeam-niraj:~/Downloads$ tac test.txt
This is assignment 1Appended textsunbeam@sunbeam-niraj:~/Downloads$ rev test.txt
txet dedneppA1 tnemngissa si sihTsunbeam@sunbeam-niraj:~/Downloads$
```

```
sunbeam@sunbeam-niraj:~/Downloads$ tac test.txt
This is assignment 1Appended textsunbeam@sunbeam-niraj:~/Downloads$ rev test.txt
txet dedneppA1 tnemngissa si sihTsunbeam@sunbeam-niraj:~/Downloads$ wc test.txt
 0  5 33 test.txt
sunbeam@sunbeam-niraj:~/Downloads$ mkdir a1
sunbeam@sunbeam-niraj:~/Downloads$ ls
'12th marklist.pdf'
'2. Format for My Resume Video Recording (1).pdf'
 a1
 antipolygon-youtube-i9pqOAcQPow-unsplash.jpg
 assignment1copy.txt
'Cdac resume-1.pdf'
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'Uploading Documents in MIS.pdf'
'WhatsApp Image 2023-11-28 at 18.15.52.jpeg'
'WhatsApp Image 2023-11-28 at 18.24.38.jpeg'
sunbeam@sunbeam-niraj:~/Downloads$
```

```
sunbeam@sunbeam-niraj:~/Downloads$ cd a1
sunbeam@sunbeam-niraj:~/Downloads/a1$ rm a1
rm: cannot remove 'a1': No such file or directory
sunbeam@sunbeam-niraj:~/Downloads/a1$ cat > new.txt
contentsunbeam@sunbeam-niraj:~/Downloads/a1$ ls
new.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ rm new.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
sunbeam@sunbeam-niraj:~/Downloads/a1$ cd ..
sunbeam@sunbeam-niraj:~/Downloads$ rmdir a1
sunbeam@sunbeam-niraj:~/Downloads$ cd a1
bash: cd: a1: No such file or directory
sunbeam@sunbeam-niraj:~/Downloads$ mkdir a1
sunbeam@sunbeam-niraj:~/Downloads$ cd a1
sunbeam@sunbeam-niraj:~/Downloads/a1$ touch new.txt new1.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
new1.txt  new.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ sort
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
new1.txt  new.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ touch a.txt b.txt z.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ sort a1
sort: cannot read: a1: No such file or directory
sunbeam@sunbeam-niraj:~/Downloads/a1$ sort
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
a.txt  b.txt  new1.txt  new.txt  z.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ unique
Command 'unique' not found, but can be installed with:
sudo apt install john
sunbeam@sunbeam-niraj:~/Downloads/a1$ uniq
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
a.txt  b.txt  new1.txt  new.txt  z.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ touch c.txt c.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ ls
a.txt  b.txt  c.txt  new1.txt  new.txt  z.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ head a.txt
sunbeam@sunbeam-niraj:~/Downloads/a1$ cat >> a.txt
abcdefghijsunbeam@sunbeam-niraj:~/Downloads/a1$ head a.txt
abcdefghijsunbeam@sunbeam-niraj:~/Downloads/a1$ head a.txt 5
==> a.txt <==
abcdefghijhead: cannot open '5' for reading: No such file or directory
sunbeam@sunbeam-niraj:~/Downloads/a1$ head 5 a.txt
head: cannot open '5' for reading: No such file or directory
==> a.txt <==
abcdefghijsunbeam@sunbeam-niraj:~/Downloads/a1$ tail a.txt
abcdefghijsunbeam@sunbeam-niraj:~/Downloads/a1$ factor a.txt
factor: 'a.txt' is not a valid positive integer
sunbeam@sunbeam-niraj:~/Downloads/a1$ factor 2
2: 2
sunbeam@sunbeam-niraj:~/Downloads/a1$ factor 1123546
1123546: 2 19 29567
sunbeam@sunbeam-niraj:~/Downloads/a1$ alias
alias alert='notify-send --urgency=low -i "$([ $? = 0 ] && echo terminal || echo error)" "$(history|tail
-n1|sed -e '\''s/^\s*[0-9]\+\s*//;s/[;&|]\s*alert$//'\''')"'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
```