

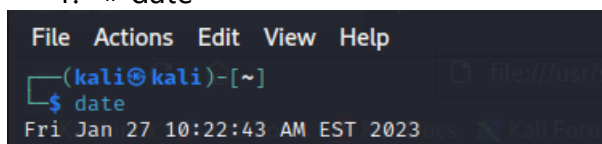
Kali Linux Basic Commands

1. Date Command

In Kali Linux, the '**date**' command is used to display the **system date** and **time**. In order to display the date, we have to use the following command:

Syntax:

1. # date



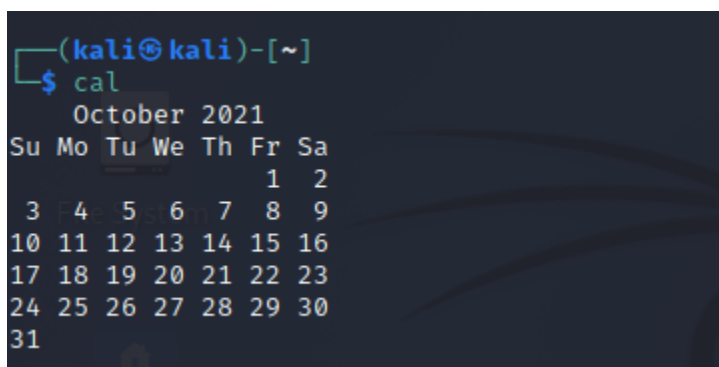
```
File Actions Edit View Help
(kali㉿kali)-[~]
$ date
Fri Jan 27 10:22:43 AM EST 2023
```

2. Cal Command

The cal command displays the current **month's formatted calendar** on our terminal screen. If we require a more advanced version of **cal**, we can install the **ncal package** on our Linux machine, which displays the calendar vertically and provides additional options.

Syntax

1. # Cal



```
(kali㉿kali)-[~]
$ cal
October 2021
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
```

3. Cd Command

The '**cd**' command is also called **chdir** (Change Directory). We used this command to **change** or **switch** the current working directory.

```
(kali㉿kali)-[~]
$ cd Desktop
(kali㉿kali)-[~/Desktop]
$ ls
Files  firebox  keyboard.png  key.png
```

4. cp Command

In Kali Linux, the '**cp**' command is used to **copy** files or a group of files or directories that create an exact image of a file on a disk with a different file name.

```
(kali㉿kali)-[~]
$ cd Desktop
(kali㉿kali)-[~/Desktop]
$ ls
Files  firebox  keyboard.png  key.png
(kali㉿kali)-[~/Desktop]
$ cp key.png files
```

5. whoami Command

The '**whoami**' command is used to print the effective **user ID** whereas the **who** command prints information regarding users who are presently logged in.

The "**w**" command can also be used to view who is logged on and what they are doing.

```
File  Actions  Edit  View  Help
(kali㉿kali)-[~]
$ whoami
kali
(kali㉿kali)-[~]
$ who
kali      tty7      2023-01-27 09:13 (:0)
```

6. Ls Command

One of the most useful commands in Kali Linux is the '**ls**' command. The **ls** command lists the directory contents of files and directories. With the help of the **ls** command, we can easily list out every hidden file of a directory with the **-a** attribute, and for more detailed output, we can use the **-l** attribute.

Syntax

1. # ls -al

```
(kali㉿kali)-[~]
└─$ ls -al
total 300
drwx----- 18 kali kali 4096 Jan 27 10:31 .
drwxr-xr-x  3 root root 4096 Dec  5 08:43 ..
drwxr-xr-x  9 kali kali 4096 Jan 26 07:04 anonym8
-rw-r--r--  1 kali kali  220 Dec  5 08:43 .bash_logout
-rw-r--r--  1 kali kali 5551 Dec  5 08:43 .bashrc
-rw-r--r--  1 kali kali 3526 Dec  5 08:43 .bashrc.original
drwx-----  9 kali kali 4096 Jan 26 23:26 .cache
drwxr-xr-x 14 kali kali 4096 Jan 27 03:42 .config
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Desktop
-rw-r--r--  1 kali kali  35 Jan 25 00:54 .dmrc
-rw-----  1 kali kali 2452 Jan 27 03:42 dn.pcapng
-rw-----  1 kali kali 37572 Jan 27 03:36 dns.pcapng
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Documents
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Downloads
-rw-r--r--  1 kali kali 11759 Dec  5 08:43 .face
lrwxrwxrwx  1 kali kali  5 Dec  5 08:43 .face.icon → .face
drwx-----  3 kali kali 4096 Jan 24 23:30 .gnupg
-rw-r--r--  1 kali kali 5467 Jan 26 06:48 hydra.restore
-rw-----  1 kali kali  0 Jan 24 23:30 .ICEauthority
drwxr-xr-x  3 kali kali 4096 Dec  5 08:43 .java
drwx-----  3 kali kali 4096 Jan 24 23:30 .local
drwx-----  4 kali kali 4096 Jan 26 23:25 .mozilla
drwxr-xr-x 10 kali kali 4096 Jan 25 04:03 .msf4
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Music
drwxr-xr-x  2 kali kali 4096 Jan 25 04:16 Pictures
-rw-r--r--  1 kali kali  807 Dec  5 08:43 .profile
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Public
-rw-r--r--  1 kali kali  0 Jan 25 01:20 .sudo_as_admin_successful
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Templates
-rw-r--r--  1 kali kali 73802 Jan 25 04:15 trojan.exe
-rw-r-----  1 kali kali  4 Jan 27 09:13 .vboxclient-clipboard.pid
-rw-r-----  1 kali kali  4 Jan 27 09:13 .vboxclient-display-svga-x11.pid
-rw-r-----  1 kali kali  4 Jan 27 09:13 .vboxclient-draganddrop.pid
-rw-r-----  1 kali kali  4 Jan 27 09:13 .vboxclient-seamless.pid
drwxr-xr-x  2 kali kali 4096 Jan 24 23:30 Videos
-rw-----  1 kali kali  49 Jan 27 09:13 .Xauthority
-rw-----  1 kali kali 6920 Jan 27 10:03 .xsession-errors
-rw-----  1 kali kali 15926 Jan 27 04:25 .xsession-errors.old
-rw-----  1 kali kali 1657 Jan 27 10:31 .zsh_history
-rw-r--r--  1 kali kali 10877 Dec  5 08:43 .zshrc
```

7. Cat Command

The '**cat**' (concatenate) command is one of Kali Linux's most commonly used commands, permitting us to create single or many files, concatenate files and redirect, view contain of file output in terminal or files.

Usually, we use the cat command to display the content of a file.

cat filename

```
(kali㉿kali)-[~]
└─$ echo "Welcome to JavaTpoint" > file.txt

(kali㉿kali)-[~]
└─$ cat file.txt
Welcome to JavaTpoint
```

8. mkdir Command

The '**mkdir**' command is used to **create directories**. For example, if we wish to create a directory named '**Penetration testing**' under the '**Documents**' directory, then we have to open a terminal and enter the below command:

1. cd Documents
mkdir Penetration testing

```
(kali㉿kali)-[~]  
$ cd Documents  
(kali㉿kali)-[~/Documents]  
$ mkdir Penetration testing  
(kali㉿kali)-[~/Documents]  
$ ls  
Kali Linux Penetration testing
```

9. rm Command

In Kali Linux, the '**rm**' command is used to **delete files**. It can be used to delete directories when we use them recursively.

```
(kali㉿kali)-[~]  
$ cd Desktop  
(kali㉿kali)-[~/Desktop]  
$ cd Files  
(kali㉿kali)-[~/Desktop/Files]  
$ ls  
image1.png java.png pics.png picture.png pp.png screen.png  
(kali㉿kali)-[~/Desktop/Files]  
$ rm pics.png  
(kali㉿kali)-[~/Desktop/Files]  
$ ls  
image1.png java.png picture.png pp.png screen.png
```

10. mv Command

With the help of the '**mv**' command, we can **move** or **renames** files and directories on our file system.

```
(kali㉿kali)-[~]
$ cd Desktop

(kali㉿kali)-[~/Desktop]
$ ls
files  Files  firebox  keyboard.png

(kali㉿kali)-[~/Desktop]
$ mv keyboard.png Files

(kali㉿kali)-[~/Desktop]
$ cd Files

(kali㉿kali)-[~/Desktop/Files]
$ ls
image1.png  java.png  keyboard.png  key.png  picture.png  pp.png  screen.png
```

11. uname Command

The '**uname**' command displays the **current system's information**. We can view system information about our Linux environment with the uname command in Linux. With the **uname -a command**, we can learn more about our system, including **Kernel Name, Node Name, Kernel Release, Kernel Version, Hardware Platform, Processor**, and **Operating System**.

Syntax

1. # uname

```
(kali㉿kali)-[~]
$ uname
Linux

(kali㉿kali)-[~]
$ uname -a
Linux kali 6.0.0-kali3-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.0.7-1kali1 (2022-11-07) x86_64 GNU/Linux

(kali㉿kali)-[~]
$ users
kali
```

12. uptime Command

The '**uptime**' command displays the amount of time the system has been running. Uptime's basic usage is simple: simply **type** the name of the command and click **Enter**.

Use the **-p** command-line option if we merely want to know how long the system has been up for and in a more human-readable format.

Syntax

1. # uptime

```
(kali㉿kali)-[~]
$ uptime
10:46:50 up 1:34, 1 user, load average: 0.04, 0.06, 0.07
```

13. users Command

The '**users**' command is used to display the **login names** of users logged in on the system.

Syntax

1. # users



```
(kali㉿kali)-[~]  
$ users  
kali
```

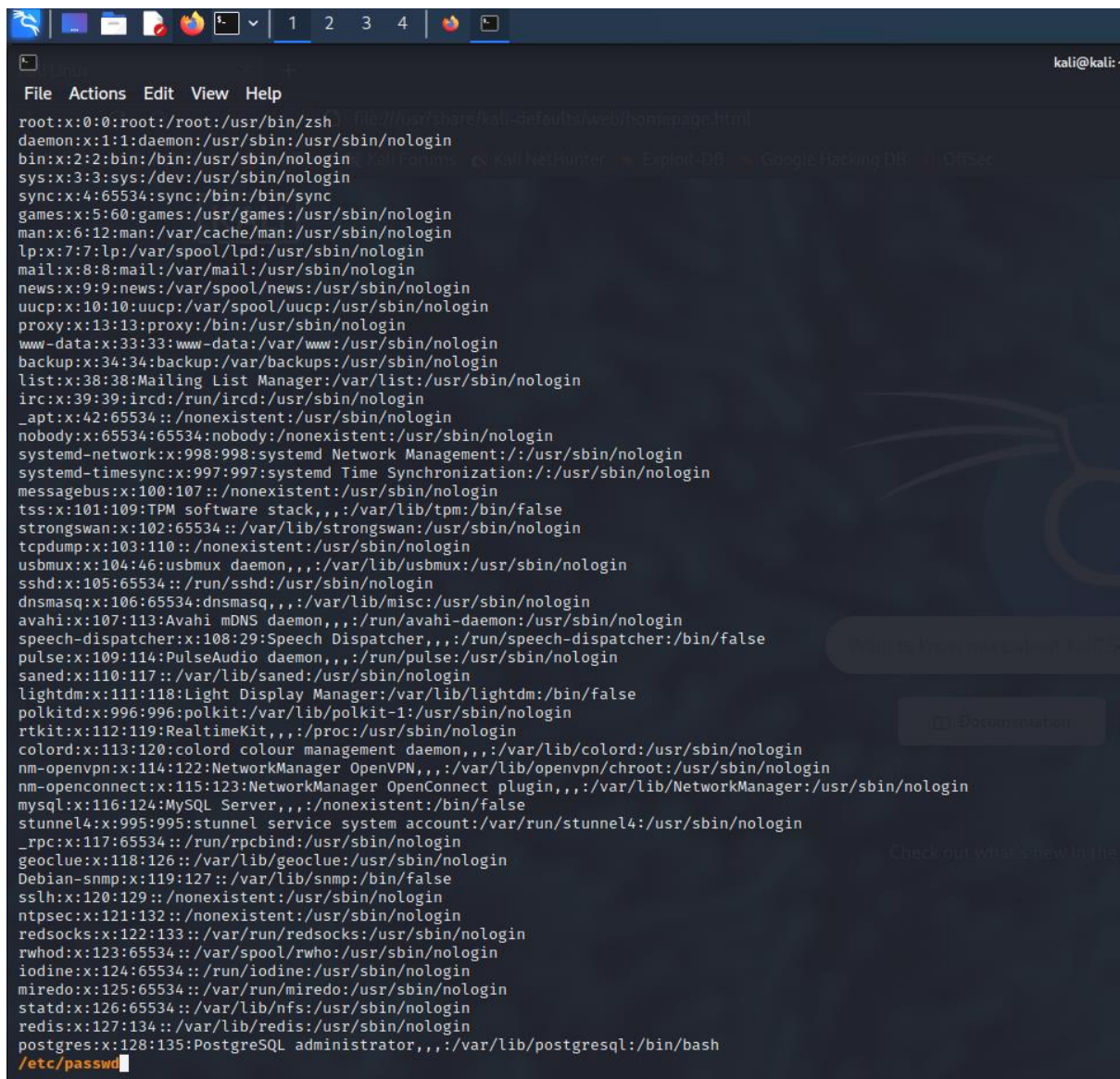
14. less Command

In Kali Linux, the '**less**' command is used to view files instead of opening the file. The less command is a more powerful variant of the "**more**" command which is used to show information one page at a time to the terminal.

We can view any text file with the help of the "**less**" command simply by typing the following command into a terminal window:

Syntax:

1. # less /etc/passwd



```
File Actions Edit View Help
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mail List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-networkd:x:998:998:systemd Network Management:/:/usr/sbin/nologin
systemd-timesyncd:x:997:997:systemd Time Synchronization:/:/usr/sbin/nologin
messagebus:x:100:107::/nonexistent:/usr/sbin/nologin
tss:x:101:109:TPM software stack,,,:/var/lib/tpm:/bin/false
strongswan:x:102:65534::/var/lib/strongswan:/usr/sbin/nologin
tcpdump:x:103:110::/nonexistent:/usr/sbin/nologin
usbmux:x:104:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
sshd:x:105:65534::/run/sshd:/usr/sbin/nologin
dnsmasq:x:106:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
avahi:x:107:113:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:108:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
pulse:x:109:114:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
saned:x:110:117::/var/lib/saned:/usr/sbin/nologin
lightdm:x:111:118:Light Display Manager:/var/lib/lightdm:/bin/false
polkitd:x:996:996:polkit:/var/lib/polkit-1:/usr/sbin/nologin
rtkit:x:112:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:113:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
nm-openvpn:x:114:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
nm-openconnect:x:115:123:NetworkManager OpenConnect plugin,,,:/var/lib/NetworkManager:/usr/sbin/nologin
mysql:x:116:124:MySQL Server,,,:/nonexistent:/bin/false
stunnel4:x:995:995:stunnel service system account:/var/run/stunnel4:/usr/sbin/nologin
_rpc:x:117:65534::/run/rpcbind:/usr/sbin/nologin
geoclue:x:118:126::/var/lib/geoclue:/usr/sbin/nologin
Debian-snmp:x:119:127::/var/lib/snmp:/bin/false
sslh:x:120:129::/nonexistent:/usr/sbin/nologin
ntpd:x:121:132::/nonexistent:/usr/sbin/nologin
redsocks:x:122:133::/var/run/redsocks:/usr/sbin/nologin
rwhod:x:123:65534::/var/spool/rwho:/usr/sbin/nologin
iodine:x:124:65534::/run/iodine:/usr/sbin/nologin
miredo:x:125:65534::/var/run/miredo:/usr/sbin/nologin
statd:x:126:65534::/var/lib/nfs:/usr/sbin/nologin
redis:x:127:134::/var/lib/redis:/usr/sbin/nologin
postgres:x:128:135:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash
/etc/passwd
```

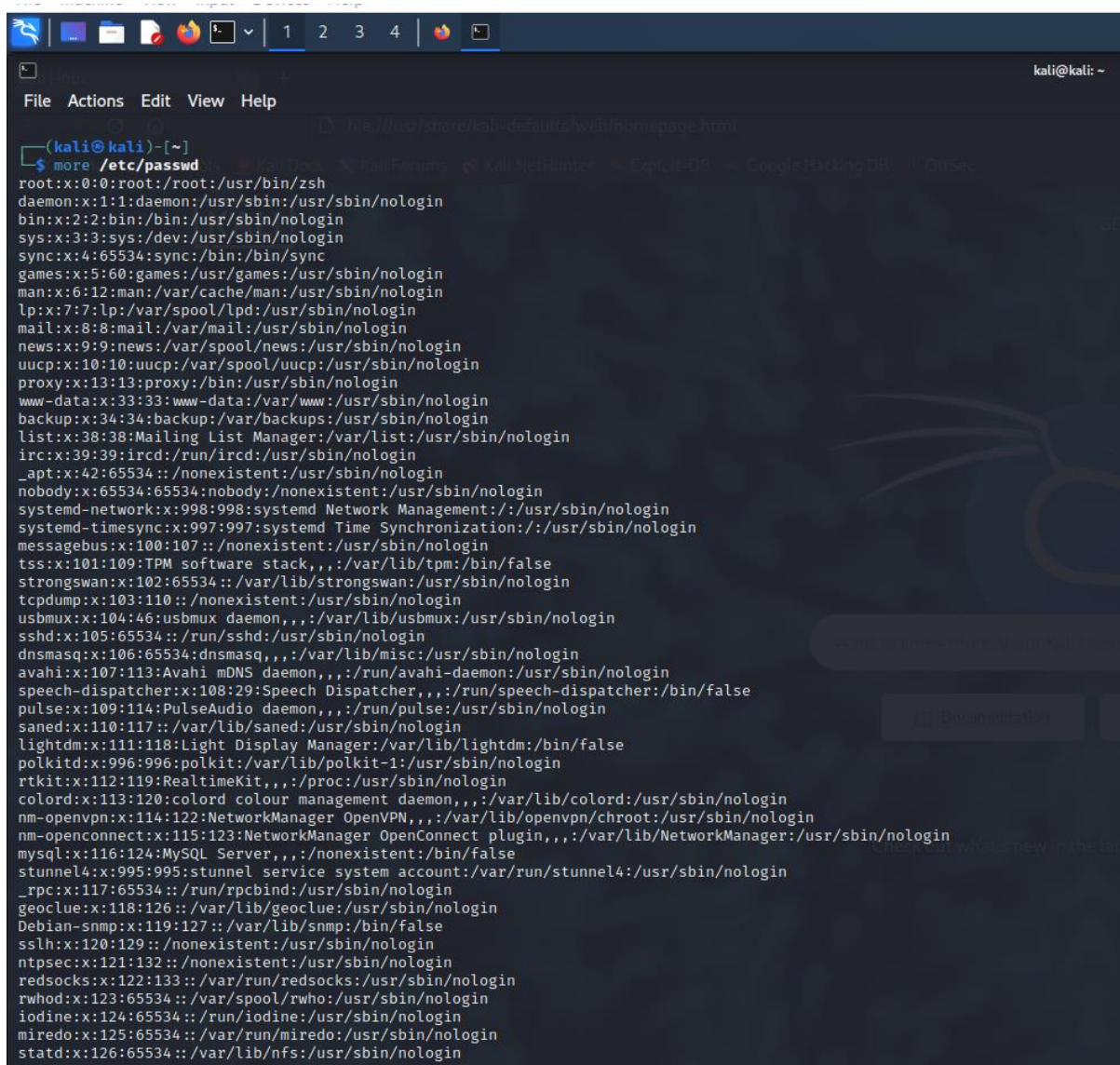
15. more Command

The **"more"** command permits us to show output in the terminal one page at a time. This is particularly beneficial when using a command that requires a lot of scrolling, such as the **'ls'** command or the **'du'** commands.

The **'more'** command works with any applications that output to the screen. A good way to test this is to type the following command into a terminal window:

Syntax:

1. # more/etc/passwd

A terminal window in Kali Linux showing the output of the command 'more /etc/passwd'. The output lists system users and their configurations, including root, daemon, bin, sys, sync, games, man, lp, mail, news, uucp, proxy, www-data, backup, list, irc, _apt, nobody, systemd-networkd, systemd-timesyncd, messagebus, tss, strongswan, tcpdump, usbmux, sshd, dnsmasq, avahi, speech-dispatcher, pulse, saned, lightdm, polkitd, rtkit, colord, nm-openvpn, nm-openconnect, mysql, stunnel4, _rpc, geoclue, Debian-snmpp, sslh, ntpsec, redsocks, rwho, iodine, miredo, and statd. The terminal has a dark background with a Kali Linux logo in the top right corner.

```
(kali@kali)-[~]
$ more /etc/passwd
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-networkd:x:998:998:systemd Network Management:/:/usr/sbin/nologin
systemd-timesyncd:x:997:997:systemd Time Synchronization:/:/usr/sbin/nologin
messagebus:x:100:107::/nonexistent:/usr/sbin/nologin
tss:x:101:109:TPM software stack,,,:/var/lib/tpm:/bin/false
strongswan:x:102:65534::/var/lib/strongswan:/usr/sbin/nologin
tcpdump:x:103:110::/nonexistent:/usr/sbin/nologin
usbmux:x:104:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
sshd:x:105:65534::/run/sshd:/usr/sbin/nologin
dnsmasq:x:106:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
avahi:x:107:113:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:108:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
pulse:x:109:114:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
saned:x:110:117::/var/lib/saned:/usr/sbin/nologin
lightdm:x:111:118:Light Display Manager:/var/lib/lightdm:/bin/false
polkitd:x:996:996:polkit:/var/lib/polkit-1:/usr/sbin/nologin
rtkit:x:112:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:113:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
nm-openvpn:x:114:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
nm-openconnect:x:115:123:NetworkManager OpenConnect plugin,,,:/var/lib/NetworkManager:/usr/sbin/nologin
mysql:x:116:124:MySQL Server,,,:/nonexistent:/bin/false
stunnel4:x:995:995:stunnel service system account:/var/run/stunnel4:/usr/sbin/nologin
_rpc:x:117:65534::/run/rpcbind:/usr/sbin/nologin
geoclue:x:118:126::/var/lib/geoclue:/usr/sbin/nologin
Debian-snmpp:x:119:127::/var/lib/snmpp:/bin/false
sslm:x:120:129::/nonexistent:/usr/sbin/nologin
ntpsec:x:121:132::/nonexistent:/usr/sbin/nologin
redsocks:x:122:133::/var/run/redsocks:/usr/sbin/nologin
rwho:x:123:65534::/var/spool/rwho:/usr/sbin/nologin
iodine:x:124:65534::/run/iodine:/usr/sbin/nologin
miredo:x:125:65534::/var/run/miredo:/usr/sbin/nologin
statd:x:126:65534::/var/lib/nfs:/usr/sbin/nologin
```

16. vi Command

The '**vi**' editor is a screen editor that comes with practically every **UNIX** system. The **command mode** and the **insert mode** are the two most common modes in vi.

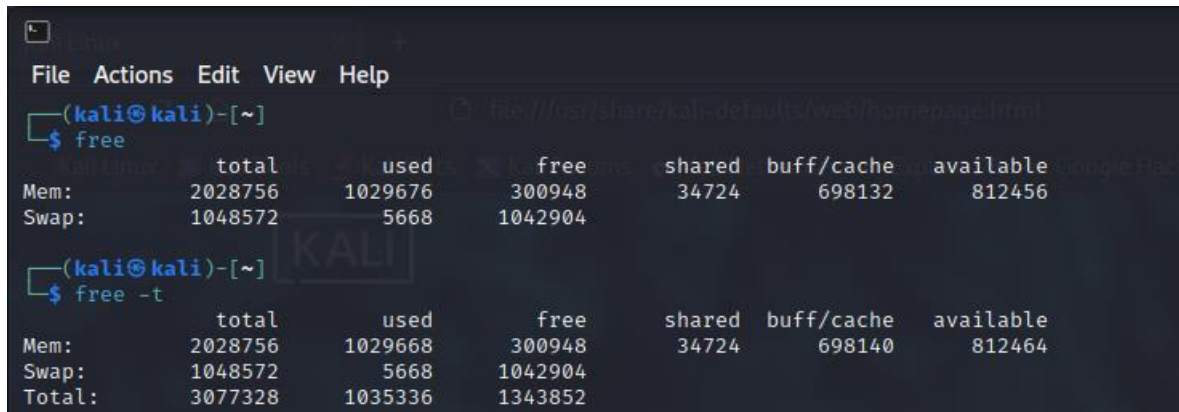
In order to start entering text in an empty file, we have to first switch from the command mode to the insert mode. To accomplish this, start typing the letter i. When we start typing, anything then the type will be entered into the file.

Type some short lines, then press Return at the end of each. **Vi** does not use word wrap like other word processors. It will break a line at the screen' edge. If we make a mistake, we can undo it by pressing the **Backspace** key. If the Backspace key on our computer is not working, then try the **ctrl + h** key combination.

Syntax:

1. # free

If we use the **free** command with the **-t** option, it would list the total line at the end.



```
(kali@kali)-[~]
$ free
              total        used        free      shared  buff/cache   available
Mem:           2028756      1029676         300948          34724         698132         812456
Swap:          1048572           5668        1042904

(kali@kali)-[~]
$ free -t
              total        used        free      shared  buff/cache   available
Mem:           2028756      1029668         300948          34724         698140         812464
Swap:          1048572           5668        1042904
Total:          3077328      1035336        1343852
```

18. sort Command

Using the '**sort**' command, we can sort the content of the text file, line by line. Sort is a standard command-line program which prints the lines of its input or concentration of all files listed in its argument list in sorted order.

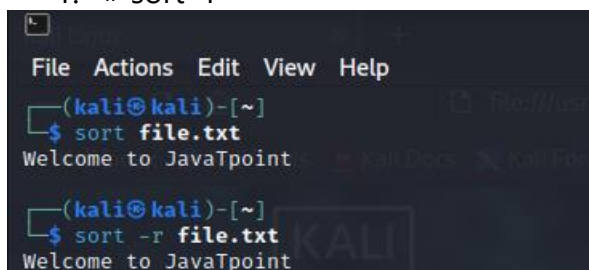
Syntax:

1. # sort file name

We can reverse the order of any file's contents by using the **-r** sort.

Syntax

1. # sort -r



```
(kali@kali)-[~]
$ sort file.txt
Welcome to JavaTpoint

(kali@kali)-[~]
$ sort -r file.txt
Welcome to JavaTpoint
```

19. history Command

The '**history**' command is one of Kali Linux's most commonly used commands. The history command in the bash shell saves a history of commands entered that can be used to repeat commands.

We can run the history command by itself, and it will just print the **current user's bash history** on the screen, as shown below:

Syntax:

1. # history

```
(kali@kali)-[~]
$ history
1  nmap -sT 192.168.1.1
2  nmap -p 1-30 192.168.1.1
3  nmap -F 192.168.1.1
4  nmap -sS 192.168.1.1
5  nmap -sT 192.168.1.1
6  locate unix passwords.txt
7  date
8  cal
9  cd
10 cd Desktop
11 ls
12 ls files
13 whoami
14 who
15 ls -al
16 cat
17 hydra -l /usr/share/wordlists/metasploit/user -p /usr/share/wordlists/metasploit/password ftp://192.168.1.101 -V
18 /usr/share/metasploit-framework/modules/auxiliary/dos# ls -l
19 /usr/share/metasploit-framework/modules/auxiliary/dos
20 cd /usr/share/metasploit-framework/modules/auxiliary/dos
21 ifconfig
22 aircrack-ng
23 ifconfig
24 aircrack-ng
25 aircrack-ng
26 aircrack-ng start wlan()\nwlan1
27 git clone https://github.com/HiroshiManRise/anonym8.git
28 cd anonym8
29 chmod +x INSTALL.sh
30 ls
31 ./INSTALL.sh
32 git clone https://github.com/HiroshiManRise/anonym8.git
33 git clone https://github.com/HiroshiManRise/anonym8.git
34 ls
35 chmod +x INSTALL.sh
36 git clone https://github.com/HiroshiManRise/anonym8.git
37 git clone https://github.com/HiroshiManRise/anonym9.git
38 theHarvester -d www.zoho.com -l 300 -b all
39 nikto -h www.zoho.com -tuning x
40 nikto -H
41 nikto -h www.zoho.com -tuning x
42 www.certifiedhacker.com -cgidirs all
```

20. Pwd Command

In Kali Linux, the '**Pwd**' command is used to **print working directory**. It gives us information about the directory we are now in. This is especially useful if we need to access the directory while in the middle of a complicated process.

```
(kali@kali)-[~]
$ pwd
/home/kali

(kali@kali)-[~]
$ cd Desktop

(kali@kali)-[~/Desktop]
$ pwd
/home/kali/Desktop

(kali@kali)-[~/Desktop]
$
```