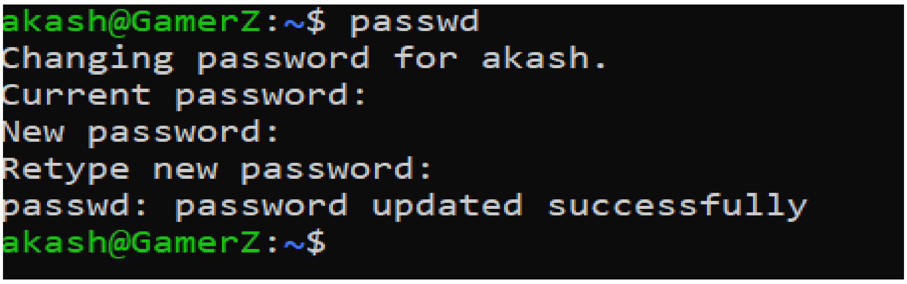
# Unix Operating System

## Basic commands

- ### Passwd

This command changes passwords for user accounts of UnixOS.



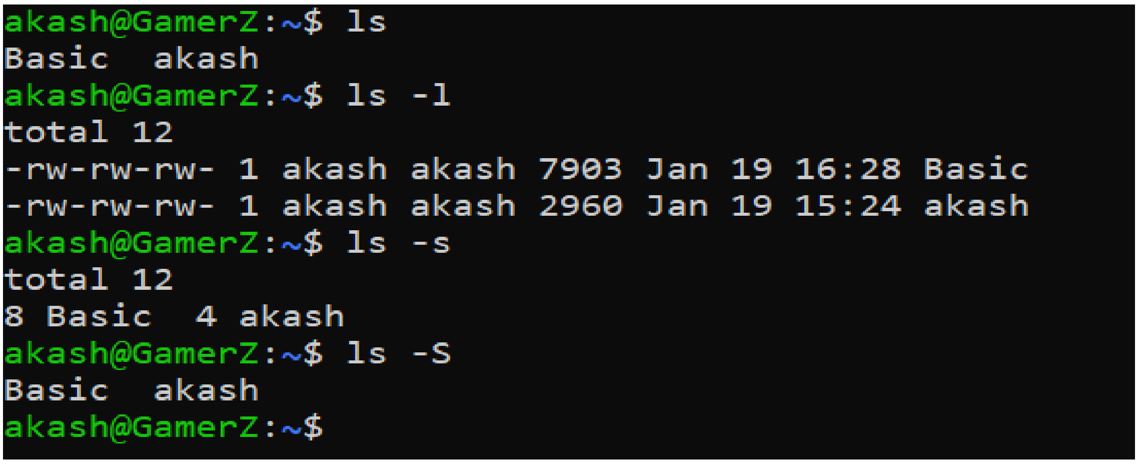
```
akash@GamerZ:~$ passwd
Changing password for akash.
Current password:
New password:
Retype new password:
passwd: password updated successfully
akash@GamerZ:~$
```

- ### ls

This command will list file name

**Options** :

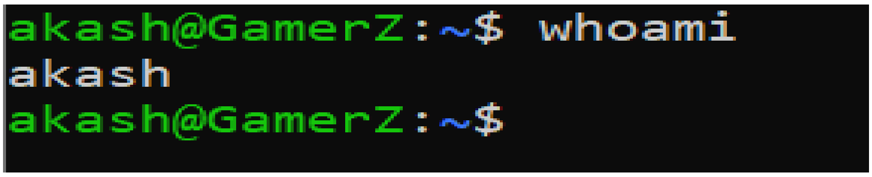
**-l** : use a long listing format
**-s** : print the allocated size of each file, in blocks
**-S** : sort by file size



```
akash@GamerZ:~$ ls
Basic  akash
akash@GamerZ:~$ ls -l
total 12
-rw-rw-rw- 1 akash akash 7903 Jan 19 16:28 Basic
-rw-rw-rw- 1 akash akash 2960 Jan 19 15:24 akash
akash@GamerZ:~$ ls -s
total 12
8 Basic  4 akash
akash@GamerZ:~$ ls -S
Basic  akash
akash@GamerZ:~$
```

- ### whoami

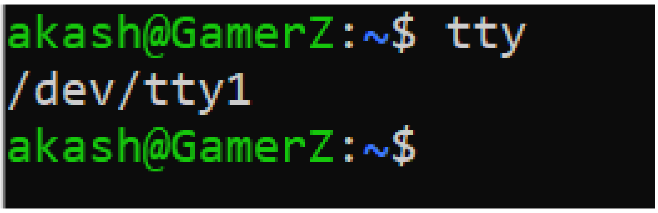
It displays the username of the current user when this command is invoked.



```
akash@GamerZ:~$ whoami
akash
akash@GamerZ:~$
```

- **tty**

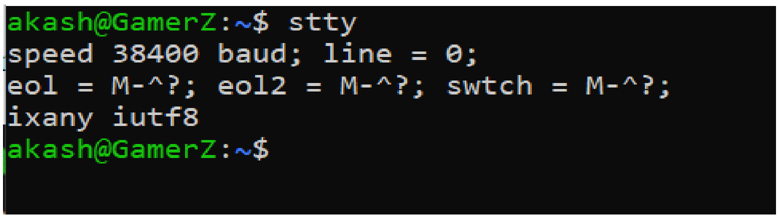
**tty** is a command in Unix and Unix-like operating systems to print the file name of the terminal connected to standard input. tty stands for TeleTYpewriter.



```
akash@GamerZ:~$ tty
/dev/tty1
akash@GamerZ:~$
```

- **stty**

**stty** command in Linux is used to change and print terminal line settings. Basically, this command shows or changes terminal characteristics**.**



```
akash@GamerZ:~$ stty
speed 38400 baud; line = 0;
eol = M-^?; eol2 = M-^?; swtch = M-^?;
ixany iutf8
akash@GamerZ:~$
```

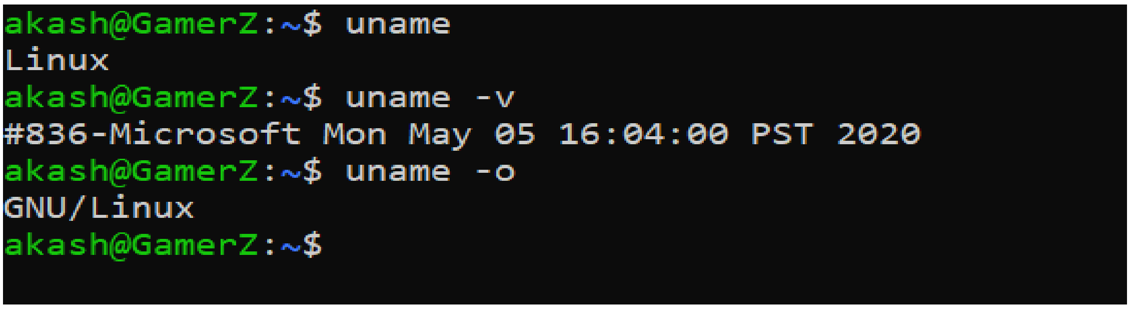
- **uname**

**uname** (short for unix name) is a computer program in Unix and Unix-like computer operating systems that prints the name, version and other details about the current machine and the operating system running on it.

**Options:**

**-v**: It prints the version of the current kernel

**-o**: It prints the name of the operating system.



```
akash@GamerZ:~$ uname
Linux
akash@GamerZ:~$ uname -v
#836-Microsoft Mon May 05 16:04:00 PST 2020
akash@GamerZ:~$ uname -o
GNU/Linux
akash@GamerZ:~$
```

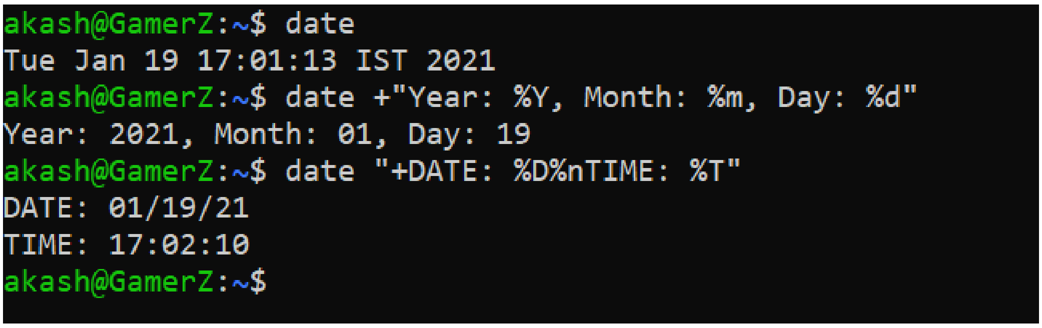
- **date**

**date** command is used to display the system date and time. date command is also used to set date and time of the system. By default the date command displays the date in the time zone on which unix/linux operating system is configured.

**Options**:

%**Y** : Year (e.g., 2020)
%**m** : Month (01-12)
%**d** : Day of month (e.g., 01)

%**D** : Display date as mm/dd/yy
%**T** : Display time as hh/mm/ss



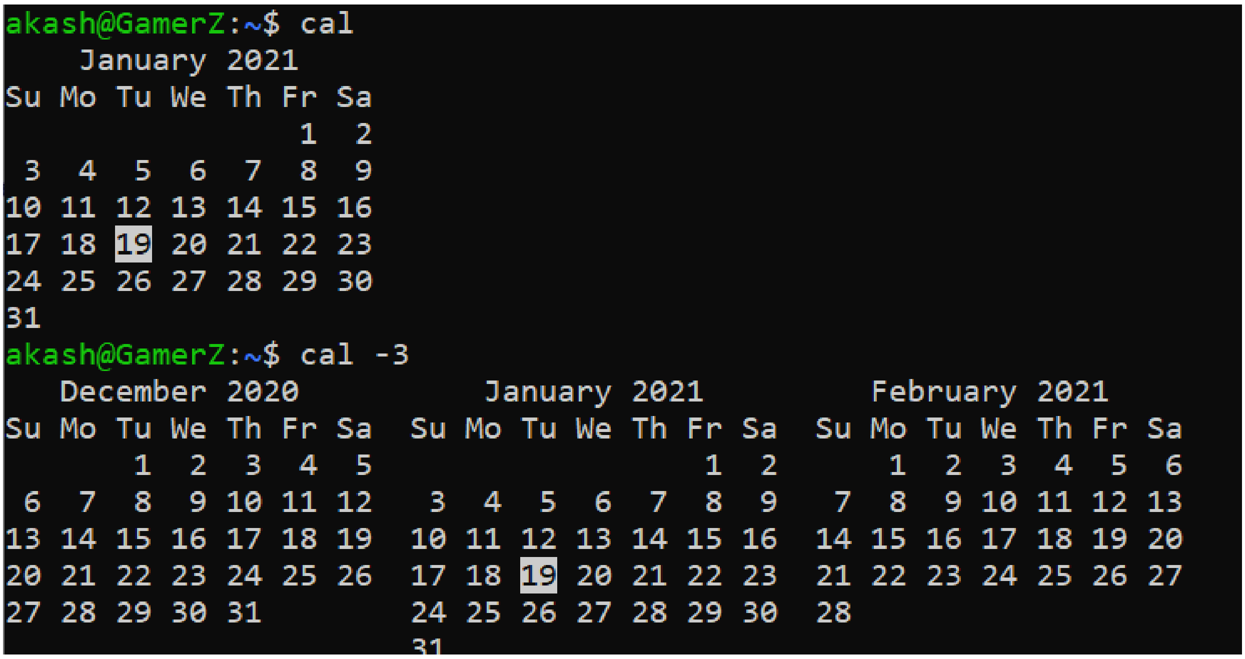
```
akash@GamerZ:~$ date
Tue Jan 19 17:01:13 IST 2021
akash@GamerZ:~$ date +"Year: %Y, Month: %m, Day: %d"
Year: 2021, Month: 01, Day: 19
akash@GamerZ:~$ date "+DATE: %D%nTIME: %T"
DATE: 01/19/21
TIME: 17:02:10
akash@GamerZ:~$
```

- **cal**

To display current month's calendar

**Options**:

-3 : display prev/current/nextMonth calendar



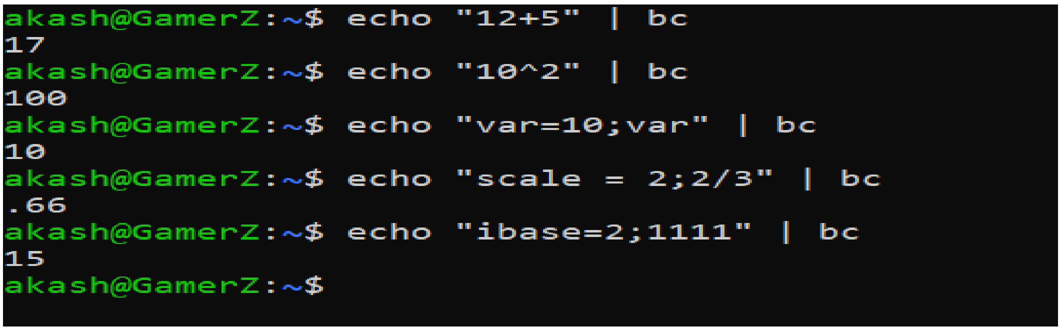
```
akash@GamerZ:~$ cal
    January 2021
Su Mo Tu We Th Fr Sa
                1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31
akash@GamerZ:~$ cal -3
   December 2020          January 2021         February 2021
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
       1  2  3  4  5                  1  2      1  2  3  4  5  6
 6  7  8  9 10 11 12   3  4  5  6  7  8  9   7  8  9 10 11 12 13
13 14 15 16 17 18 19  10 11 12 13 14 15 16  14 15 16 17 18 19 20
20 21 22 23 24 25 26  17 18 19 20 21 22 23  21 22 23 24 25 26 27
27 28 29 30 31        24 25 26 27 28 29 30  28
                      31
```

- **bc**

**bc** command is used for command line calculator. It is similar to basic calculator by using which we can do basic mathematical calculations.

Functions Supported:

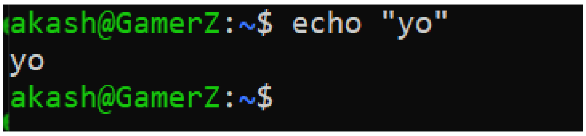
**scale**: The value of the scale function is the number of digits after the decimal point in the expression.
**ibase** : Convert Binary to Decimal



```
akash@GamerZ:~$ echo "12+5" | bc
17
akash@GamerZ:~$ echo "10^2" | bc
100
akash@GamerZ:~$ echo "var=10;var" | bc
10
akash@GamerZ:~$ echo "scale = 2;2/3" | bc
.66
akash@GamerZ:~$ echo "ibase=2;1111" | bc
15
akash@GamerZ:~$
```

- **echo**

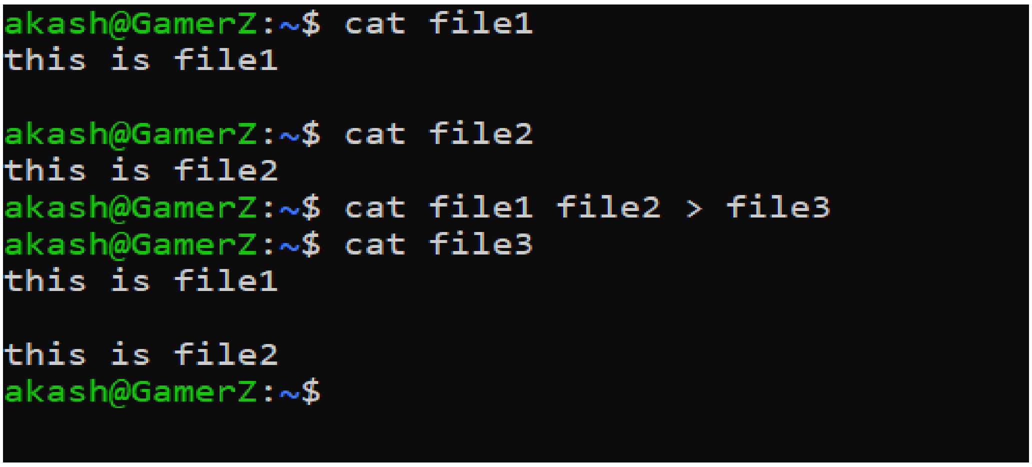
**echo** command is used to display line of text/string that are passed as an argument . This is a built in command that is mostly used in shell scripts.



```
akash@GamerZ:~$ echo "yo"
yo
akash@GamerZ:~$
```

- **cat**

**Cat(concatenate)** command is very frequently used in Linux. It reads data from the file and gives their content as output. It helps us to create, view, concatenate files



```
akash@GamerZ:~$ cat file1
this is file1

akash@GamerZ:~$ cat file2
this is file2
akash@GamerZ:~$ cat file1 file2 > file3
akash@GamerZ:~$ cat file3
this is file1

this is file2
akash@GamerZ:~$
```