

1)date

```
root@LAPTOP-IHK88BVA:~# date
Tue Oct 13 14:12:18 IST 2020
```

2)cal

```
root@LAPTOP-IHK88BVA:~# cal
October 2020
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
```

cal -m1

```
January 2020
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
```

Cal 2022 -m1

```
January 2022
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)bc

```
root@LAPTOP-IHK88BVA:~# bc
bc 1.07.1
```

Q2)

Create three directory a b and c and create a.txt,b.txt and c.txt in each directory respectively and then copy c directory into the a.

```
root@LAPTOP-IHK88BVA:~/a# cp c.txt a.txt
root@LAPTOP-IHK88BVA:~/a# vi a.txt
```

```
welcome cdac 2020
Arati Khamkar
```

Create alias of ls -lh command to your name.

```
root@LAPTOP-IHK88BVA:~# ls -lh arati
-r-xr-xr-x 1 root root 0 Oct  6 14:36 arati
```

Q3)

Create five files file1.txt , file2.txt ,file3.txt file4.txt and

file5.txt with some text inside it. Search for 's' character

inside all the files using grep command.

```
root@LAPTOP-IHK88BVA:~# grep -i "s" file1.txt file3.txt file4.txt file5.txt file6.txt
file1.txt:Welcomes edac students
file3.txt:Welcomes edac students
file4.txt:Welcomes edac students
file5.txt:Welcomes edac students
file6.txt:Welcomes edac students
```

Create file.txt using cat and edit that using nano editor

```
root@LAPTOP-IHK88BVA:~# cat>file9.txt
Hii guys
created cat file
root@LAPTOP-IHK88BVA:~#
```

Create 5 empty files using touch command

```
root@LAPTOP-IHK88BVA:~# touch file1.txt file3.txt file4.txt file5.txt file6.txt
root@LAPTOP-IHK88BVA:~# ls
0]          add.sh          arithmetic.sh  comparing.sh  fibonecci.sh  file5.txt  getting.sh  palimdrom.sh  var.sh
11          addition.h      average.sh    condition.sh  file.txt      file6.txt  greater.sh  read.sh       world.sh
OddEven.c   addition2             b            dir           file1.txt    file7.txt  hello.sh   reverse.sh
OddEven.sh  addition2.sh          bashrc       echo.sh       file2.txt    file8.txt  if.sh      swap.sh
a           arati                c            factorial.sh  file3.txt    file9.txt  looping.sh  switchcase.sh
a.txt       arati.sh             c.txt       factorial1.sh file4.txt     function.sh name.sh     test.sh
```

Remove previously created directory a , b and c

```
root@LAPTOP-IHK88BVA:~# rm file1.txt
root@LAPTOP-IHK88BVA:~# rm file3.txt
root@LAPTOP-IHK88BVA:~# rm file4.txt
root@LAPTOP-IHK88BVA:~# ls
0]          addition.h      average.sh    dir           file2.txt    function.sh  name.sh     test.sh
11          addition2             b            echo.sh       file5.txt    getting.sh  palimdrom.sh var.sh
OddEven.c   addition2.sh          bashrc       factorial.sh  file6.txt    greater.sh  read.sh     world.sh
OddEven.sh  arati                c            factorial1.sh file7.txt    hello.sh   reverse.sh
a           arati.sh             comparing.sh  fibonecci.sh file8.txt    if.sh      swap.sh
add.sh      arithmetic.sh          condition.sh  file.txt     file9.txt    looping.sh  switchcase.sh
```

Q4) Create a file with some content using vi editor

Display the file using cat command

```
root@LAPTOP-IHK88BVA:~# vi ab.txt
root@LAPTOP-IHK88BVA:~# cat ab.txt
cat command is very useful
```

Display line numbers along with content

```
root@LAPTOP-IHK88BVA:~# cat -n ab.txt
 1 cat command is very useful
```

Combine multiple files using cat command

```
root@LAPTOP-IHK88BVA:~# cat file5.txt file6.txt > newFile.txt
root@LAPTOP-IHK88BVA:~# cat newFile.txt
Welcomes edac students
Welcomes edac students
```

Q5)

display files row wise, column wise, 1 per row

```
root@LAPTOP-IHK88BVA:~# cat test.txt
s.no      name      roll_no
1         Arati     10
2         pooja     65
3         seema     20
root@LAPTOP-IHK88BVA:~# column test.txt -t -s "|"
s.no      name      roll_no
1         Arati     10
2         pooja     65
3         seema     20
```

sort the files in ascending, descending order

```
root@LAPTOP-IHK88BVA:~# cat > test4.txt
arati
satish
rajan
divyam
harsh^C
root@LAPTOP-IHK88BVA:~# sort test4.txt
arati
divyam
rajan
satish
root@LAPTOP-IHK88BVA:~# sort -r test4.txt
satish
rajan
divyam
arati
```

Create some hidden files and sub directories and display them using "ls -a"

```
root@LAPTOP-IHK88BVA:~# ls -a
.          .profile  ab.txt    average.sh  factorial.sh  file8.txt  name.sh    teatfile.txt
..         .vim      add.sh    b           factorial1.sh file9.txt  newFile.txt test.sh
.bash_history .viminfo  addition.h bashrc      fibonecci.sh function.sh palindrom.sh test.txt
.bashrc     0]        addition2 c           file.txt     getting.sh  read.sh    test4.txt
.cache      11        addition2.sh comparing.sh file2.txt   greater.sh  reverse.sh  var.sh
.config     OddEven.c arati     condition.sh file5.txt   hello.sh   swap.sh    world.sh
.fibonecci.sh.swp OddEven.sh arati.sh  dir         file6.txt   if.sh      switchcase.sh
.local      a         arithmetic.sh echo.sh    file7.txt  looping.sh  teatfile.sh
```

Change time stamp of some files and directories using touch command and display the files using ls -t ls -rt

```

root@LAPTOP-IHK88BVA:~# touch test1.txt
root@LAPTOP-IHK88BVA:~# ls -l test1.txt
-rw-r--r-- 1 root root 0 Oct 13 17:44 test1.txt
root@LAPTOP-IHK88BVA:~# ls -t test1.txt
test1.txt
root@LAPTOP-IHK88BVA:~# ls -rt test1.txt
test1.txt
root@LAPTOP-IHK88BVA:~# ls -al test1.txt
-rw-r--r-- 1 root root 0 Oct 13 17:44 test1.txt

```

Recursive display contents of your home directory.

```

root@LAPTOP-IHK88BVA:~# ls -R
.:
0]      add.sh      arithmetic.sh  condition.sh  file.txt      file9.txt      looping.sh      swap.sh      test.txt
11      addition.h  average.sh    dir           file2.txt     function.sh     name.sh         switchcase.sh test1.txt
OddEven.c addition2      b            echo.sh       file5.txt     getting.sh      newFile.txt     teatfile.sh   test4.txt
OddEven.sh addition2.sh  bashrc       factorial.sh  file6.txt     greater.sh      palimdrom.sh    teatfile.txt  var.sh
a       arati      c            factorial1.sh file7.txt     hello.sh        read.sh         tesr4.txt     world.sh
ab.txt  arati.sh     comparing.sh  fibonecci.sh file8.txt     if.sh           reverse.sh      test.sh

./a:
a.txt  c.txt  c.txtx

./addition2:

./b:

./c:

./dir:

```

display all attributes of files and directories using ls -l

```

root@LAPTOP-IHK88BVA:~# ls -l
total 0
-rw-r--r-- 1 root root 0 Oct 11 20:41 0]
-rw-r--r-- 1 root root 4 Oct 5 18:25 11
-rw-r--r-- 1 root root 112 Oct 9 13:44 OddEven.c
-rwxrwxrwx 1 root root 112 Oct 9 16:05 OddEven.sh
drwxr-xr-x 1 root root 4096 Oct 13 15:28 a
-rw-r--r-- 1 root root 27 Oct 13 16:20 ab.txt
-rwxr-xr-x 1 root root 111 Oct 10 16:11 add.sh
-rw-r--r-- 1 root root 16 Oct 6 12:52 addition.h
drwxr-xr-x 1 root root 4096 Oct 11 11:36 addition2
-rwxr-xr-x 1 root root 189 Oct 7 14:35 addition2.sh
-r-xr-xr-x 1 root root 0 Oct 6 14:36 arati
-rw-r--r-- 1 root root 6 Oct 6 15:13 arati.sh
-rw-r--r-- 1 root root 56 Oct 11 19:47 arithmetic.sh
-rw-r--r-- 1 root root 143 Oct 11 20:41 average.sh
drwxr-xr-x 1 root root 4096 Oct 13 14:37 b
-rw-r--r-- 1 root root 1 Oct 6 15:15 bashrc
drwxr-xr-x 1 root root 4096 Oct 13 14:37 c
-rw-r--r-- 1 root root 175 Oct 11 19:14 comparing.sh
-rw-r--r-- 1 root root 168 Oct 11 19:36 condition.sh
drwxr-xr-x 1 root root 4096 Oct 6 14:35 dir
-rwxr-xr-x 1 root root 25 Oct 11 18:44 echo.sh
-rw-r--r-- 1 root root 124 Oct 9 18:25 factorial.sh
-rw-r--r-- 1 root root 108 Oct 10 16:21 factorial1.sh
-rw-r--r-- 1 root root 128 Oct 9 18:33 fibonecci.sh
-rwxr-xr-x 1 root root 74 Oct 11 11:40 file.txt
-rwxr-xr-x 1 root root 74 Oct 13 15:31 file2.txt
-rw-r--r-- 1 root root 23 Oct 13 16:07 file5.txt
-rw-r--r-- 1 root root 23 Oct 13 16:07 file6.txt
-rw-r--r-- 1 root root 0 Oct 13 16:06 file7.txt
-rw-r--r-- 1 root root 27 Oct 13 15:52 file8.txt
-rw-r--r-- 1 root root 26 Oct 13 15:54 file9.txt

```

display attributes of a directory using ls -ld

```

root@LAPTOP-IHK88BVA:~# ls -ld
drwx----- 1 root root 4096 Oct 13 17:44 .

```

Q1) Create directory of your name and then create 4 files inside it named a.txt, b.txt, c.txt and d.sh. And change the directory permission to only user and also files permission to only user such that

```
root@LAPTOP-IHK88BVA:~# chmod 777 t2.txt
root@LAPTOP-IHK88BVA:~# ls -l t2.txt
-rwxrwxrwx 1 root root 9 Oct 13 18:00 t2.txt
root@LAPTOP-IHK88BVA:~# ls -l t3.txt
-rw-r--r-- 1 root root 9 Oct 13 18:00 t3.txt
root@LAPTOP-IHK88BVA:~# chmod 755 t3.txt
root@LAPTOP-IHK88BVA:~# ls -l t3.txt
-rwxr-xr-x 1 root root 9 Oct 13 18:00 t3.txt
root@LAPTOP-IHK88BVA:~# chmod 955 t4.txt
chmod: invalid mode: '955'
Try 'chmod --help' for more information.
root@LAPTOP-IHK88BVA:~# chmod 725 t4.txt
root@LAPTOP-IHK88BVA:~# ls -l t4.txt
-rwx-w-r-x 1 root root 9 Oct 13 18:01 t4.txt
```

user can read and write the file a.txt and b.txt

```
root@LAPTOP-IHK88BVA:~# chmod 600 t1.txt
root@LAPTOP-IHK88BVA:~# ls -l t1.txt
-rw----- 1 root root 9 Oct 13 18:00 t1.txt
root@LAPTOP-IHK88BVA:~# chmod 600 t2.txt
root@LAPTOP-IHK88BVA:~# ls -l t2.txt
-rw----- 1 root root 9 Oct 13 18:00 t2.txt
```

user can write the file c.txt

```
root@LAPTOP-IHK88BVA:~# chmod 200 t3.txt
root@LAPTOP-IHK88BVA:~# ls -l t3.txt
--w----- 1 root root 9 Oct 13 18:00 t3.txt
```

user can execute the file d.sh. Make

Contents of file d.sh:

```
#!/bin/sh
```

```
ls -lh
```



```
root@LAPTOP-IHK88BVA:~# vi d.sh
root@LAPTOP-IHK88BVA:~# #/bin/d.sh
root@LAPTOP-IHK88BVA:~# ls -lh
total 0
-rw-r--r-- 1 root root  0 Oct 11 20:41 0]
-rw-r--r-- 1 root root  4 Oct  5 18:25 11
-rw-r--r-- 1 root root 112 Oct  9 13:44 OddEven.c
-rwxrwxrwx 1 root root 112 Oct  9 16:05 OddEven.sh
drwxr-xr-x 1 root root 4.0K Oct 13 15:28 a
-rw-r--r-- 1 root root  27 Oct 13 16:20 ab.txt
-rwxr-xr-x 1 root root 111 Oct 10 16:11 add.sh
-rw-r--r-- 1 root root  16 Oct  6 12:52 addition.h
drwxr-xr-x 1 root root 4.0K Oct 11 11:36 addition2
-rwxr-xr-x 1 root root 189 Oct  7 14:35 addition2.sh
-r-xr-xr-x 1 root root  0 Oct  6 14:36 arati
-rw-r--r-- 1 root root  6 Oct  6 15:13 arati.sh
-rw-r--r-- 1 root root  56 Oct 11 19:47 arithmetic.sh
-rw-r--r-- 1 root root 143 Oct 11 20:41 average.sh
drwxr-xr-x 1 root root 4.0K Oct 13 14:37 b
-rw-r--r-- 1 root root  1 Oct  6 15:15 bashrc
drwxr-xr-x 1 root root 4.0K Oct 13 14:37 c
-rw-r--r-- 1 root root 175 Oct 11 19:14 comparing.sh
-rw-r--r-- 1 root root 168 Oct 11 19:36 condition.sh
-rw-r--r-- 1 root root  8 Oct 13 18:28 d.sh
drwxr-xr-x 1 root root 4.0K Oct  6 14:35 dir
-rwxr-xr-x 1 root root  25 Oct 11 18:44 echo.sh
```