PRACTICE 3. List directories

1. List the files in the current directory

Comando "ls -a"

```
adminsanti@servidorsanti:~$ cd /home/
adminsanti@servidorsanti:/home$ ls -a
.  ..  DATA  DELETE  NOMBRE  PROGC  SCRIPTS  adminsanti
adminsanti@servidorsanti:/home$ _
```

2. List files ordered in columns

Comando "ls -l"

```
adminsanti@servidorsanti:/home$ ls -l
total 24
drwxr-xr-x 2 root       root       4096 May  7 10:01 DATA
drwxr-xr-x 3 root       root       4096 May  4 17:47 DELETE
-rw-r--r-- 1 root       root         15 May  7 09:58 NOMBRE
drwxr-xr-x 2 root       root       4096 May  4 17:44 PROGC
drwxr-xr-x 2 root       root       4096 May  4 17:45 SCRIPTS
drwxr-xr-x 3 adminsanti adminsanti 4096 May  4 17:17 adminsanti
adminsanti@servidorsanti:/home$ _
```

3. List files and the size of them

Comando "ls -sh"

```
adminsanti@servidorsanti:/home$ ls -sh
total 24K
4.0K DATA  4.0K DELETE  4.0K NOMBRE  4.0K PROGC  4.0K SCRIPTS  4.0K adminsanti
adminsanti@servidorsanti:/home$ _
```

4. List the value of the inode for each file

Comando "do —inode"

```
adminsanti@servidorsanti:/home$ du --inodes
2       ./DATA
2       ./adminsanti/.cache
10      ./adminsanti
1       ./SCRIPTS
1       ./DELETE/subdirectory
2       ./DELETE
1       ./PROGC
18      .
adminsanti@servidorsanti:/home$
```

5. Show the files and directories of the / home directory and its subdirectories

Comando "ls"

```
                first
adminsanti@servidorsanti:/home$  ls
DATA  DELETE  NOMBRE  PROGC  SCRIPTS  adminsanti
adminsanti@servidorsanti:/home$
```

6. Show the files in the / bin directory that begin with b

Command "cd /bin" "ls b*"

```
adminsanti@servidorsanti:/bin$ ls b*
b2sum        btrfs-convert       byobu-disable            byobu-quiet              bzcat
base32       btrfs-find-root     byobu-disable-prompt     byobu-reconnect-sockets  bzcmp
base64       btrfs-image         byobu-enable             byobu-screen             bzdiff
basename     btrfs-map-logical   byobu-enable-prompt      byobu-select-backend     bzegrep
bash         btrfs-select-super  byobu-export             byobu-select-profile     bzexe
bashbug      btrfsck             byobu-janitor            byobu-select-session     bzfgrep
batch        btrfstune           byobu-keybindings        byobu-shell              bzgrep
bc           bunzip2             byobu-launch             byobu-silent             bzip2
boltctl      busctl              byobu-launcher           byobu-status             bzip2recover
bootctl      busybox             byobu-launcher-install   byobu-status-detail      bzless
bsd-from     byobu               byobu-launcher-uninstall byobu-tmux               bzmore
bsd-write    byobu-config        byobu-layout             byobu-ugraph
btrfs        byobu-ctrl-a        byobu-prompt             byobu-ulevel
adminsanti@servidorsanti:/bin$ _
```

7. Obtain a listing of the HOME directory in which the hidden files appear, the type of file and information related to owners, dates, etc.

```
adminsanti@servidorsanti:/home$ ls -a -l
total 32
drwxr-xr-x  7 root      root      4096 May  7 10:01 .
drwxr-xr-x 20 root      root      4096 Apr 28 11:32 ..
drwxr-xr-x  2 root      root      4096 May  7 10:01 DATA
drwxr-xr-x  3 root      root      4096 May  4 17:47 DELETE
-rw-r--r--  1 root      root        15 May  7 09:58 NOMBRE
drwxr-xr-x  2 root      root      4096 May  4 17:44 PROGC
drwxr-xr-x  2 root      root      4096 May  4 17:45 SCRIPTS
drwxr-xr-x  3 adminsanti adminsanti 4096 May  4 17:17 adminsanti
adminsanti@servidorsanti:/home$ _
```

8. Observe the difference between ls -l and ls -ld.

The command ls -ld displays detailed information **about a directory** without showing its content

```
                first
adminsanti@servidorsanti:/home$ ls -ld
drwxr-xr-x 7 root root 4096 May  7 10:01 .
```

9. Observe the access rights of the different files in the dir HOME.

```
adminsanti@servidorsanti:/home$ ls -l
total 24
drwxr-xr-x 2 root      root      4096 May  7 10:01 DATA
drwxr-xr-x 3 root      root      4096 May  4 17:47 DELETE
-rw-r--r-- 1 root      root        15 May  7 09:58 NOMBRE
drwxr-xr-x 2 root      root      4096 May  4 17:44 PROGC
drwxr-xr-x 2 root      root      4096 May  4 17:45 SCRIPTS
drwxr-xr-x 3 adminsanti adminsanti 4096 May  4 17:17 adminsanti
adminsanti@servidorsanti:/home$
```

10. Display the contents of the / usr / bin directory inverse order

El comando sería "ls -r" (older entries first)

```
    pdb3.8                      batch
    pdb3                        bashbug
    pbputs                      bash
    pbput                       basename
    pbget                       base64
    pathchk                     base32
    patch                       b2sum
    pastebinit                  awk
    paste                       automat-visualize3
    passwd                      atrm
    partx                       atq
    pager                       at
    os-prober                   arch
    openvt                      apt-sortpkgs
    openssl                     apt-mark
    on_ac_power                 apt-key
    oem-getlogs                 apt-get
    od                          apt-ftparchive
    numfmt                      apt-extracttemplates
    ntfswipe                    apt-config
    ntfsusermap                 apt-cdrom
    ntfstruncate                apt-cache
    ntfssecaudit                apt-add-repository
    ntfsrecover                 apt
    ntfsmove                    apropos
    ntfsls                      apport-unpack
    ntfsinfo                    apport-collect
    ntfsfix                     apport-cli
    ntfsfallocate               apport-bug
    ntfsdecrypt                 addpart
    ntfscmp                     add-apt-repository
    ntfscluster                 aa-exec
    ntfscat                     aa-enabled
    ntfs-3g.probe               '['
    ntfs-3g                     VGAuthService
    nsupdate                    NF
    adminsanti@servidorsanti:/bin$
```

11. List all the files in the / etc directory that do not start with t in reverse order

Me situo en etc: "cd /etc"
Comandos: ls -r [^t]*

```
numfmt                          batch
ntfswipe                        bashbug
ntfsusermap                     bash
ntfstruncate                    basename
ntfssecaudit                    base64
ntfsrecover                     base32
ntfsmove                        b2sum
ntfsls                          awk
ntfsinfo                        automat-visualize3
ntfsfix                         atrm
ntfsfallocate                   atq
ntfsdecrypt                     at
ntfscmp                         arch
ntfscluster                     apt-sortpkgs
ntfscat                         apt-mark
ntfs-3g.probe                   apt-key
ntfs-3g                         apt-get
nsupdate                        apt-ftparchive
nstat                           apt-extracttemplates
nslookup                        apt-config
nsenter                         apt-cdrom
nroff                           apt-cache
nproc                           apt-add-repository
nohup                           apt
nl                              apropos
nisdomainname                   apport-unpack
nice                            apport-collect
ngettext                        apport-cli
newgrp                          apport-bug
networkd-dispatcher             addpart
networkctl                      add-apt-repository
netkit-ftp                      aa-exec
netcat                          aa-enabled
neqn                            '['
ncal                            VGAuthService
```

12. List all the files in the / dev directory that start with tty and have 5 characters

Comando: ls -d /????? [tty]*

```
adminsanti@servidorsanti:/dev$ ls -d /????? [tty]*
/cdrom  tty11  tty19  tty26  tty33  tty40  tty48  tty55  tty62  ttyS11  ttyS19  ttyS26  ttyS5
/lib32  tty12  tty2   tty27  tty34  tty41  tty49  tty56  tty63  ttyS12  ttyS2   ttyS27  ttyS6
/lib64  tty13  tty20  tty28  tty35  tty42  tty5   tty57  tty7   ttyS13  ttyS20  ttyS28  ttyS7
/media  tty14  tty21  tty29  tty36  tty43  tty50  tty58  tty8   ttyS14  ttyS21  ttyS29  ttyS8
tty     tty15  tty22  tty3   tty37  tty44  tty51  tty59  tty9   ttyS15  ttyS22  ttyS3   ttyS9
tty0    tty16  tty23  tty30  tty38  tty45  tty52  tty6   ttyS0  ttyS16  ttyS23  ttyS30  ttyprintk
tty1    tty17  tty24  tty31  tty39  tty46  tty53  tty60  ttyS1  ttyS17  ttyS24  ttyS31
tty10   tty18  tty25  tty32  tty4   tty47  tty54  tty61  ttyS10 ttyS18  ttyS25  ttyS4
adminsanti@servidorsanti:/dev$
```

13. List all the files in the / dev directory that begin with tty and end with 1,2,3 or 4

Comando: ls [tty]* *[1] *[2] *[3] *[4]

```
tty14   tty21   tty25   tty30   tty43   tty50   tty58   tty8    ttyS14  ttyS21  ttyS25  ttyS8
adminsanti@servidorsanti:/dev$ ls [tty]* *[1] *[2] *[3] *[4]
loop1   tty1    tty18   tty25   tty33   tty42   tty51   tty6    ttyS1   ttyS18  ttyS25  ttyS6       vcsu1
loop2   tty10   tty19   tty26   tty34   tty42   tty51   tty60   ttyS10  ttyS19  ttyS26  ttyS7       vcsu2
loop3   tty11   tty2    tty27   tty34   tty43   tty52   tty61   ttyS11  ttyS2   ttyS27  ttyS8       vcsu3
loop4   tty11   tty2    tty28   tty35   tty43   tty52   tty61   ttyS11  ttyS2   ttyS28  ttyS9       vcsu4
sda1    tty12   tty20   tty29   tty36   tty44   tty53   tty62   ttyS12  ttyS20  ttyS29  ttyprintk
sda2    tty12   tty21   tty3    tty37   tty44   tty53   tty62   ttyS12  ttyS21  ttyS3   vcs1
sda3    tty13   tty21   tty3    tty38   tty45   tty54   tty63   ttyS13  ttyS21  ttyS3   vcs2
sg1     tty13   tty22   tty30   tty39   tty46   tty54   tty63   ttyS13  ttyS22  ttyS30  vcs3
sg2     tty14   tty22   tty31   tty4    tty47   ttyS55  tty7    ttyS14  ttyS22  ttyS31  vcs4
sr1     tty14   tty23   tty31   tty4    tty48   ttyS56  tty8    ttyS14  ttyS23  ttyS31  vcsa1
tty     tty15   tty23   tty32   tty40   tty49   ttyS57  tty9    ttyS15  ttyS23  ttyS4   vcsa2
tty0    tty16   tty24   tty32   tty41   tty5    ttyS58  ttyS0   ttyS16  ttyS24  ttyS4   vcsa3
tty1    tty17   tty24   tty33   tty41   tty50   ttyS59  ttyS1   ttyS17  ttyS24  ttyS5   vcsa4
adminsanti@servidorsanti:/dev$
```

14. List all files, including hidden files, in the root directory

Primero entro desde el admin con sudo -i

```
adminsanti@servidorsanti:/home$ cd /root
-bash: cd: /root: Permission denied
adminsanti@servidorsanti:/home$ sudo -i
root@servidorsanti:~# cd /root
root@servidorsanti:~# ls -a
.  ..  .bash_history  .bashrc  .profile  .ssh  snap
root@servidorsanti:~# _
```

15. List all the files in your Home directory showing all the properties of these, identify each column and write down the meaning of each property.

First column explain the permissions.
Second column is the owner
Third column is user
Fourth column is groups
Fifth column is the size of the file or directory
Then the date and time of creation and the name of the directory.

```
root@servidorsanti:/home# ls -l
total 24
drwxr-xr-x 2 root      root      4096 May  7 10:01 DATA
drwxr-xr-x 3 root      root      4096 May  4 17:47 DELETE
-rw-r--r-- 1 root      root        15 May  7 09:58 NOMBRE
drwxr-xr-x 2 root      root      4096 May  4 17:44 PROGC
drwxr-xr-x 2 root      root      4096 May  4 17:45 SCRIPTS
drwxr-xr-x 3 adminsanti adminsanti 4096 May  4 17:17 adminsanti
root@servidorsanti:/home#
```