

| commands miscellanea | | commands miscellanea (cont) | | commands miscellanea (cont) | | commands miscellanea (cont) | |
|------------------------|---|-----------------------------|--|-----------------------------|---|-----------------------------|---|
| the ps command, | which shows the status of running processes | clear | cleans the screen | kill | terminates a process | ip addr | shows ip address and related information |
| vimtutor | tutorial for vim | man | manual | mount | it mounts file | expr | allows to perform some mathematical operations |
| rmdir | erases directory | du | estimates the file memory usage | ifconfig | view the network interface | env | permit to see the current environment variables |
| whoami | tells what kind of user you are | free | displays the amount of free and used memory in the system | whereis | find the address of a specific command | history | shows the last one hundred commands execute in the system |
| passwd | set up password or change the one you have | df | report file system disk space usage | uptime | show the running time of the system | iwlist | displays wireless devices plus configuration files |
| xemacs | calls text editor | lsblk | command used to report info about block devices as follows | hostname | displays the system hostname | locate | find files by name |
| ".bashrc" | | fdisk | manipulate disk partition table | cal | show the month calendar | lshw | display some basic information about the machine |
| cat | scan docs. from conCATenate | uname | print system info | bg | sends a process to the background | lsusb | display information about usb |
| ln | let you make links between files | cat /proc/cpuinfo | cpu info | df | shows file system disk space | nice | nice - run a program with modified scheduling priority |
| stty "-funtion key" | lets you set up the function keys | lscpu | cpu info | diff | serves to find differences between to files | pidof | find the process ID of a running program. |
| stty -a | show the current function key | sudo | gets root authority | lspci | serves to visualize P.C.I. devices | split | serves to split large files in to smaller ones |
| stty sane | fix the shell | grep | search for a string in a file | top | used to manage top processes | sum | checksum and count the blocks in a file |
| ls ["range"].["range"] | looks for combinations that satisfy specification | tar | creates, view or extracts from archive | ping host | send echo message to the host | | |
| tail -"#" | displays the last # of lines of a text file | find | find files with a pattern | dig domain | show the dns specification for the domain | | |
| head -"#" | displays the first #of lines of a text file | ssh | remotely login | scp | allows to remotely copy files from one machine to another machine | | |
| less | show less of a text file | awk | controls output | | | | |
| awk | organize data in in columns and rows | gzip | creates a *.gz compressed file | | | | |
| sort | sort lines of text files | shutdown | turn off the machine | | | | |



| commands miscellanea (cont) | setting NFS tutorial (cont) | setting NFS tutorial (cont) | File modification |
|---|--|--|--|
| <p>watch execute a program periodically, showing output fullscreen</p> | <p>\$ sudo systemctl restart nfs-server</p> | <p>\$ sudo yum install nfs-utils nfs-utils-lib</p> | <p>chown USER FILE changes the user ownership of a file to the specified user</p> |
| <p>setting NFS tutorial</p> <p>sudo yum install nfs-utils nfs-utils-lib install NFS</p> | <p>\$ sudo firewall-cmd --permanent --add-port=111/tcp; \$ sudo firewall-cmd --permanent --add-port=875/tcp; \$ sudo firewall-cmd --permanent --add-port=20048/tcp; \$ sudo firewall-cmd --permanent --add-port=4295-5/tcp; \$ sudo firewall-cmd --permanent --add-port=46666/tcp; \$ sudo firewall-cmd --permanent --add-port=5430-2/tcp; \$ sudo firewall-cmd --reload</p> | <p>\$ sudo systemctl enable rpcbind \$ sudo systemctl start rpcbind \$ sudo systemctl enable nfs-server; \$ sudo systemctl start nfs-server; \$ sudo systemctl start nfs-lock; \$ sudo systemctl start nfs-idmap</p> <p>\$ sudo mkdir /NFSsharedFolder; \$ sudo chmod -R 0755 /NFSsharedFolder</p> <p>\$ sudo nano /etc/export</p> | <p>chown USER:GROUP FILE changes the user and the group to the specified user</p> |
| <p>sudo systemctl enable rpcbind; \$ sudo systemctl start rpcbind; \$ sudo systemctl enable nfs-server; \$ sudo systemctl start nfs-server; \$ sudo systemctl start nfs-lock; \$ sudo systemctl start nfs-idmap</p> | <p>commands to open and configure appropriate ports</p> | <p>\$ sudo systemctl enable rpcbind \$ sudo systemctl start rpcbind \$ sudo systemctl enable nfs-server \$ sudo systemctl start nfs-server \$ sudo systemctl start nfs-lock \$ sudo systemctl start nfs-idmap</p> | <p>chown USER:GROUP FILE changes the user, and group ownership of the file to the specified user and group respectively</p> |
| <p>\$ sudo mkdir /NFSsharedFolder; \$ sudo chmod -R 0755 /NFSsharedFolder</p> | <p>commands to create and prepared a folder</p> | <p>\$ sudo mkdir /NFSfolder \$ sudo chmod -R 755 /NFSfolder</p> | <p>chown :GROUP FILE changes the group ownership of the file to the specified group</p> |
| <p>\$ sudo nano /etc/export</p> | <p>open nano to modify the export file</p> | <p>\$ sudo nano /etc/fstab</p> | <p>chgrp GROUP FILE changes the group ownership of the file to the specified group</p> |
| <p>/NFSsharedFolder 172.25.0.0/16(rw, sync, no_root_squash, no_all_squash)</p> | <p>add this line to the export line</p> | <p>172.25.22.10:/NFSsharedFolder/NFSfolder nfs4 defaults 0 0</p> | <p>chmod [0,1,2,4,7][0,1,2,4,7] changes readability, writability, and executability of a file to owner, group owner, and everyone respectively</p> |
| | <p>move to the client to continue the configuration</p> | <p>\$ sudo mount</p> | <p>chgrp GROUP FILE changes the group ownership of the file to the specified group</p> |
| | | <p>also need to install nfs in the client side of the relationship</p> | <p>chown USER:GROUP FILE changes the user and the group to the specified user</p> |
| | | <p>commands to start appropriate services</p> | <p>chown USER:GROUP FILE changes the user, and group ownership of the file to the specified user and group respectively</p> |
| | | <p>create and set up share folder</p> | <p>chown :GROUP FILE changes the group ownership of the file to the specified group</p> |
| | | <p>open nano to edit fstab folder</p> | <p>chgrp GROUP FILE changes the group ownership of the file to the specified group</p> |
| | | <p>add this line to the fstab folder</p> | <p>chmod [0,1,2,4,7][0,1,2,4,7] changes readability, writability, and executability of a file to owner, group owner, and everyone respectively</p> |
| | | <p>use this command to check what was mounted in the specified NFS server</p> | |



File modification (cont)

chmod [u(user),-g(group),o(others),a(all)][+,-][r(read),-w(write),x(execute),t(write to not delete)] File adds or removes permission to r,w,x from u,g,o or a

tutorial on how to setup Samba

\$ sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup

creates backup file in case you mess it up

sudo mkdir /SharedFolder/

create folder to be shared

\$ sudo chmod -R 755 /SharedFolder/

set right permissions

\$ sudo firewall-cmd --permanent --zone=public --add-service=samba

set firewall

\$ sudo firewall-cmd --reload

set firewall

\$ sudo nano /etc/samba/smb.conf

open nano to start the file configuration

follow instruction in comment

then come back to this line and keep inputting the commands

\$ sudo smbpasswd -a user1

set up password for user1

tutorial on how to setup Samba (cont)

\$ sudo systemctl enable smb.service; \$ sudo systemctl start smb.service; \$ sudo systemctl start nmb.service

commands to enter testing phase

Move to the client side

and continue

smb://server_ip_address

type in the server connection screen

the configuration file should look like this:

```
[Shared Folder]
path = /SharedFolder
read only = no
guest ok = yes
browsable = yes
writable = yes
create mask = 0755
directory mask = 0755
workgroup = WORKGROUP
```

then save and create user1.

user and groups creations and modifaciton

groupadd GROUP

creates new group

groupmod -n NewGroupName

changes the group name

useradd USER

creates new user

user and groups creations and modifaciton (cont)

useradd -d /path/to/home/dir/

creates a user with specified home directory

useradd -u USERID USER

allows to create user with personalized ID

useradd -G GROUP1, GROUP2... USER

allows to create user with multiples groups

cat /etc/passwd

lists all user and displays relevant information

most used commands

pwd

outputs the present working directory

sudo + other command(s)

allows to gain root privileges

root

access root user and its privileges

cd + specific address

access a specific address

cd

move to home directory

cd ..

go back to parent directory

ls

outputs information of present directory

ls + specific address

shows files in the specific directory

most used commands (cont)

ls -a

option a allows to show hidden files

ls -l

show deeper description of showed files

ls -h

shows files in human readable format

touch "filename"

creates file with the specified fileName

echo > "filename"

allows to write text to a file(if any, erase old text in file)

echo >> "filename"

allows to append text to a file

cp "file" "new directory"

copy files to new address

mv "file" "new directory"

cut files to new address

mkdir "name"

creates a new directory inside the present directory

mkdir /path/to/directory/"name"

creates directory with a specific path

rm "file"

removes files from the system

most used commands (cont)

`rm -r` removes recursively the "dir-ect-ory" specified directory from the system

service related commands

`journalctl` prompts the user with the active services in the system

`systemctl` Control the systemd system and service manager

commands miscellanea 2

`flock` manage locks from shell scripts

`lockf` apply, test or remove a POSIX lock on an open file

`fcntl` manipulate file descriptor

`statd` NSM service daemon

`stat` display file or file system status

`samba` A Windows AD and SMB/CIFS fileserver for UNIX

`smbpasswd` The Samba encrypted password file

`sssd` System Security Services Daemon

`setgid` set group identity

`mktemp` create a temporary file or directory

`true` do nothing, successfully

commands miscellanea 2 (cont)

`false` do nothing, unsuccessfully

`if` "use" a Perl module if a condition holds

`test` check file types and compare values

`exit` self explanatory

`w` displays who is logged in and what are they doing

`fg` brings the most recent background job to the foreground

`sleep` delay for a specified amount of time

`tac` concatenate and print files in reverse

`wall` write a message to all users

`whatis` display basic information about a command passed as parameter

`yes "-string"` infinitely outputs a string pass as parameter to the command