# Week 3.1 File management  
  
## File management  
1. Create a new directory in the homedirectory called Documents  
#  
 root@7a3c2be130d1:/home/ubuntu# mkdir documents  
 root@7a3c2be130d1:/home/ubuntu# ls  
 documents  
  
2. Create in that folder a new empty file called file1. \*Note: use touch\*  
#  
 root@7a3c2be130d1:/home/ubuntu/documents# touch file1  
 root@7a3c2be130d1:/home/ubuntu/documents# ls  
 file1  
  
3. Copy file1 to the root of the homedirectory, use the shortest command  
#   
 root@7a3c2be130d1:/home/ubuntu/documents# cp file1 ../  
 root@7a3c2be130d1:/home/ubuntu/documents# cd ..  
 root@7a3c2be130d1:/home/ubuntu# ls  
 documents file1  
  
4. Create with 1 command 8 empty files in the directory Documents with the names, file2, file3, ..., file20. Use the shortest command.  
#  
 root@7a3c2be130d1:/home/ubuntu# touch documents/file{2..9}  
 root@7a3c2be130d1:/home/ubuntu# cd documents  
 root@7a3c2be130d1:/home/ubuntu/documents# ls  
 file1 file2 file3 file4 file5 file6 file7 file8 file9  
 root@7a3c2be130d1:/home/ubuntu/documents#  
  
5. Create a new directory called backup in the homedirectory  
#   
 root@7a3c2be130d1:/home/ubuntu# mkdir backup  
 root@7a3c2be130d1:/home/ubuntu# ls  
 backup documents file1  
 root@7a3c2be130d1:/home/ubuntu#  
  
6. Copy only the even files from Documents to Backup  
#  
 root@7a3c2be130d1:/home/ubuntu# cp documents/file[02468]\* backup  
 root@7a3c2be130d1:/home/ubuntu# ls  
 backup documents file1  
 root@7a3c2be130d1:/home/ubuntu# cd backup  
 root@7a3c2be130d1:/home/ubuntu/backup# ls  
 file2 file4 file6 file8  
 root@7a3c2be130d1:/home/ubuntu/backup#  
  
7. Create a hidden file in the homedirectory  
#  
 root@7a3c2be130d1:/home/ubuntu# touch .hiddenfile  
 root@7a3c2be130d1:/home/ubuntu# ls -a  
 . .. .bash\_logout .bashrc .hiddenfile .profile backup documents file1  
   
8. Show all hidden files  
#  
 root@7a3c2be130d1:/home/ubuntu# ls -a  
 . .. .bash\_logout .bashrc .hiddenfile .profile backup documents file1  
  
9. Create a new directory in the homefolder with the name \*Subdir\*  
#  
 root@7a3c2be130d1:/home/ubuntu# mkdir Subdir  
 root@7a3c2be130d1:/home/ubuntu# ls  
 Subdir backup documents file1  
  
10. Move and rename the file file2 (from q2) to this folder with the name \*TextfileQ8\*  
#  
 root@7a3c2be130d1:/home/ubuntu# mv documents/file2 Subdir/textfileQ8  
 root@7a3c2be130d1:/home/ubuntu# cd Subdir  
 root@7a3c2be130d1:/home/ubuntu/Subdir# ls  
 textfileQ8  
  
  
11. Show in the long listing format the full content (also hidden files and directories) of the homedirectory with all subdirectories and the subdirectories of that, ...  
#  
 root@7a3c2be130d1:/home/ubuntu# ls -laR  
 .:  
 total 36  
 drwxr-x--- 1 ubuntu ubuntu 4096 Oct 13 14:33 .  
 drwxr-xr-x 1 root root 4096 Oct 6 15:14 ..  
  
12. Delete the directory \*Subdir\* with all content.  
#  
 root@7a3c2be130d1:/home/ubuntu# rm -rf Subdir  
 root@7a3c2be130d1:/home/ubuntu# ls  
 backup documents file1  
  
13. Show only the owner of the file \*words\*  
#  
 root@7a3c2be130d1:/home# stat -c "%U" words  
 root  
  
## Case John  
John is working on a big project in Linux that has several configuration files. Help him to copy the following files to a new folder in the homedrive called backup\_config.  
- /etc/hosts  
- ~/.bashrc  
- /etc/passwd  
- /etc/shadow  
#  
 root@7a3c2be130d1:/home/ubuntu# cd backup\_config  
 root@7a3c2be130d1:/home/ubuntu# cp /etc/hosts ~/.bashrc /etc/passwd /etc/shadow /home/ubuntu/backup\_config  
 root@7a3c2be130d1:/home/ubuntu/backup\_config# ls -a  
 . .. .bashrc hosts passwd shadow  
  
Then create a file with the directory listing of the files in that folder. \*Note: show the long listing format, with hidden files and in human readable.\*  
#  
 root@7a3c2be130d1:/home/ubuntu# ls -lha > directory\_listing.txt  
 root@7a3c2be130d1:/home/ubuntu# ls  
 backup backup\_config directory\_listing.txt documents file1  
  
## Case Jean  
Jean has some photo's he would like to rename, how ever since that didn't work out very well on PowerShell he asks to provide a testcase with 1 blank files in Linux. Rename the file to the inode number of that file. To help you John has already written the command to read out a command in a variable.   
- Step 1: Get the inode command  
- Step 2: Insert that command in a variable called inode: `inode=$(INSERT\_COMMAND\_STEP1)`  
- Step 3: Use `echo $inode` to check if it works  
- Step 4: Rename the file  
#  
 root@7a3c2be130d1:/home/ubuntu# touch photo1  
 root@7a3c2be130d1:/home/ubuntu# ls  
 backup backup\_config directory\_listing.txt documents file1 photo1  
 root@7a3c2be130d1:/home/ubuntu# ls -i photo1  
 309479 photo1  
 root@7a3c2be130d1:/home/ubuntu# inode=$(ls -i photo1 | awk '{print $1}')  
 root@7a3c2be130d1:/home/ubuntu# echo $inode  
 309479  
 root@7a3c2be130d1:/home/ubuntu# mv photo1 $inode  
 root@7a3c2be130d1:/home/ubuntu# ls  
 309479 backup backup\_config directory\_listing.txt documents file1  
  
The result should be for example: 21374992  
  
## Case Sophie  
Sophie thinks Douglas has hidden something on the system. Show all hidden files with an x or i in the name in the folder /sys/module.  
#   
 find /sys/module -type f -name ".\*[xi]\*"  
\*Note: use find and show the output via ls\*  
#  
 ls -l $(find /sys/module -type f -name ".\*[xi]\*" 2>/dev/null)  
  
Create manual softlinks to those files in the homedirectory to easily get back to them.  
  
  
## Case LEHO quiz - evaluation  
Answer the found keys in the LEHO quiz  
  
Run the following docker container: `docker run -it --name caoslab3 koenkoreman/caos\_lab3 /bin/bash`  
If the container has run before use `docker start -i caoslab3` to start the container.  
  
1. Create a new directory called \*linuxfiles\* in the directory `/home`.   
2. Create a file called config.yml in the linuxfiles folder with the following contents:  
  
```*yml*### Config file for the lab FileManagement by KoenK  
### Do not change this file  
name: Koen K  
  
lessons:  
 - Virtualizationcd  
 - Linux Commands  
 - Docker  
  
contact:  
 koen.koreman@howest.be  
```  
3. Copy file /etc/mysetup.conf to the linuxfiles folder  
4. Create a hidden file with the name secret in the folder linuxfiles  
5. Create a softlink to the `/etc/passwd` file in the folder linuxfiles  
  
Execute the command `val` to retrieve the keys  
  
Q1 - autochecking  
## CORRECT - KEY ## - a467c744  
Q2 - autochecking  
Q3 - autochecking  
## CORRECT - KEY ## - 149d2a6f  
Q4 - autochecking  
## CORRECT - KEY ## - 2dd66a1  
Q5 - autochecking  
## CORRECT - KEY ## - af2c56me  
root@0f53ceb90a26:/home/linuxfiles#