

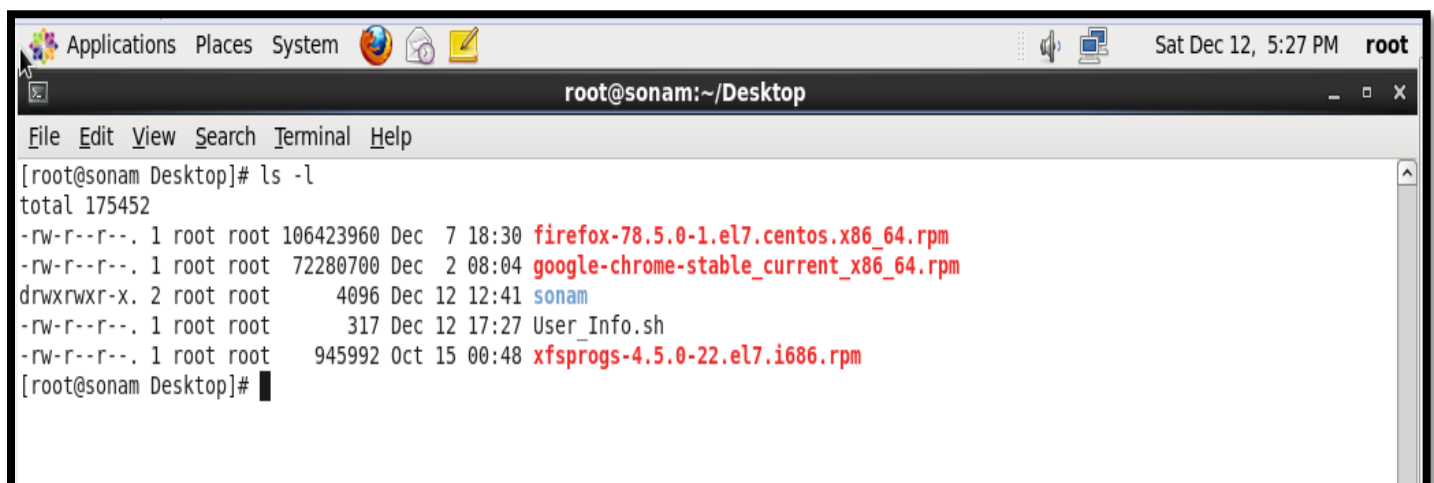
# Assignment Day 8 | 9th December 2020

## Assignment 0

1. Create a simple shell script to tell the user about their session – they need to know:

- What their username is
- What the current date is
- What the time is
- What their current working directory is
- How many files they have in that directory
- What is the biggest file in their current directory

Current files in the Directory:



The screenshot shows a terminal window titled 'root@sonam:~/Desktop'. The window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal output shows the result of the command '[root@sonam Desktop]# ls -l'. The output lists five files with their permissions, sizes, dates, times, and names. The files are: 'firefox-78.5.0-1.el7.centos.x86\_64.rpm' (106423960 bytes, Dec 7 18:30), 'google-chrome-stable\_current\_x86\_64.rpm' (72280700 bytes, Dec 2 08:04), 'sonam' (4096 bytes, Dec 12 12:41), 'User\_Info.sh' (317 bytes, Dec 12 17:27), and 'xfsprogs-4.5.0-22.el7.i686.rpm' (945992 bytes, Oct 15 00:48). The total size of the files is 175452 bytes.

```
[root@sonam Desktop]# ls -l
total 175452
-rw-r--r--. 1 root root 106423960 Dec  7 18:30 firefox-78.5.0-1.el7.centos.x86_64.rpm
-rw-r--r--. 1 root root  72280700 Dec  2 08:04 google-chrome-stable_current_x86_64.rpm
drwxrwxr-x. 2 root root    4096 Dec 12 12:41 sonam
-rw-r--r--. 1 root root    317 Dec 12 17:27 User_Info.sh
-rw-r--r--. 1 root root  945992 Oct 15 00:48 xfsprogs-4.5.0-22.el7.i686.rpm
[root@sonam Desktop]#
```

## Shell Script:

```
root@sonam:~/Desktop
File Edit View Search Terminal Help
[root@sonam Desktop]# cat User_Info.sh
#!/bin/bash
echo "Your Username is $USER"
echo "The current date is $(date +"%d-%m-%y")"
echo "The current time is $(date +"%H:%M:%S")"
echo "Your current present working directory is $PWD"
echo "There are $(ls $pwd | wc -l) files in this directory."
echo "The largest file in this directory is $(ls -S|head -1)"
[root@sonam Desktop]#
```

## Execution of the Shell Script

```
root@sonam:~/Desktop
File Edit View Search Terminal Help
[root@sonam Desktop]# sh User_Info.sh
Your Username is root
The current date is "12-12-20"
The current time is "17:29:28"
Your current present working directory is /root/Desktop
There are 5 files in this directory.
The largest file in this directory is firefox-78.5.0-1.el7.centos.x86_64.rpm
[root@sonam Desktop]#
```

## Assignment 1

Create a directory with a few test files in it (the files can be empty). Now write a script that for every file in that directory you rename it to have an extension of today's date in YYYYMMDD format.

```
root@sonam:~/Desktop/test
File Edit View Search Terminal Help
[root@sonam Desktop]# ls
firefox-78.5.0-1.el7.centos.x86_64.rpm  Rename_File.sh  User_Info.sh
google-chrome-stable_current_x86_64.rpm  sonam          xfsprogs-4.5.0-22.el7.i686.rpm
[root@sonam Desktop]#
[root@sonam Desktop]# mkdir test
[root@sonam Desktop]#
[root@sonam Desktop]# cd test/
[root@sonam test]#
[root@sonam test]# touch file1
[root@sonam test]# touch file2
[root@sonam test]# touch file3
[root@sonam test]#
[root@sonam test]# ls
file1 file2 file3
[root@sonam test]#
```

```
root@sonam:~/Desktop
File Edit View Search Terminal Help
[root@sonam Desktop]# ls
firefox-78.5.0-1.el7.centos.x86_64.rpm  Rename_File.sh  test          xfsprogs-4.5.0-22.el7.i686.rpm
google-chrome-stable_current_x86_64.rpm  sonam          User_Info.sh
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# cat Rename_File.sh
#!/bin/bash

echo "Changing the file extension ..."
cd test
for f in *; do
    mv "$f" "${f%.*}.${date +%Y%m%d}";
done
[root@sonam Desktop]#
```

```
[root@sonam Desktop]# sh Rename_File.sh  
Changing the file extension ...  
[root@sonam Desktop]# █
```

```
[root@sonam Desktop]# ls test/  
file1.20201212  file2.20201212  file3.20201212  
[root@sonam Desktop]# █
```

## Assignment 2

Write a script that takes a number as an input and reverses it out to the user. For example, if the original number is 74985, the output should be 58947.

```
File Edit View Search Terminal Help
[root@sonam Desktop]# ls
firefox-78.5.0-1.el7.centos.x86_64.rpm  Rename_File.sh  sonam  User_Info.sh
google-chrome-stable_current_x86_64.rpm  Reverse_Number.sh  test  xfsprogs-4.5.0-22.el7.i686.rpm
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# cat Reverse_Number.sh
#!/bin/bash

clear
read -p " Enter a number: " num
echo "The number you entered is" $num
echo "The number reversed is" $(echo $num | rev)
[root@sonam Desktop]#
```

```
File Edit View Search Terminal Help
Enter a number: 987456321
The number you entered is 987456321
The number reversed is 123654789
[root@sonam Desktop]#
```

## Assignment 3

Write a script to validate how secure someone's password is. Things you would care about:

- Length should be 8 or more characters
- The password should contain numbers and letters
- There should be both uppercase and lowercase letters

```
[root@sonam Desktop]# ls
firefox-78.5.0-1.el7.centos.x86_64.rpm  Rename_File.sh  test
google-chrome-stable_current_x86_64.rpm  Reverse_Number.sh  User_Info.sh
Password_Validation.sh  shell-script-validate-password.html  xfsprogs-4.5.0-22.el7.i686.rpm
Password_Validation.sh~  sonam
[root@sonam Desktop]#
[root@sonam Desktop]# cat Password_Validation.sh
#!/bin/bash
Echo "Enter the Password"
read password
len="${#password}"
if test $len -ge 8;then
    echo "$password" | grep -q [0-9]
    if test $? -eq 0; then
        echo "$password" | grep -q [A-Z]
        if test $? -eq 0; then
            echo "$password" | grep -q [a-z]
            if test $? -eq 0; then
                echo "$password" | grep -q [$,@,#,%]
                if test $? -eq 0; then
                    echo "Strong Password"
                else
                    echo "Weak Password, please include special characters(#,$,@,%)"
                fi
            else
                echo "Weak Password, please include Lower Case characters"
            fi
        else
            echo "Weak Password, Please include Capital Letters"
        fi
    else
        echo "Weak Password, please include the numbers in Password"
    fi
else
    echo "Password length should be greater than or equal to 8.....Your password is weak, please try with other"
fi
[root@sonam Desktop]#
```

```
[root@sonam Desktop]# sh Password_Validation.sh
Enter the Password
sonam
Password length should be greater than or equal to 8.....Your password is weak, please try with other
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# sh Password_Validation.sh
Enter the Password
sonamverma
Weak Password, please include the numbers in Password
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# sh Password_Validation.sh
Enter the Password
sonamverma1
Weak Password, Please include Capital Letters
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# sh Password_Validation.sh
Enter the Password
Sonamverma1
Weak Password, please include special characters(#,$,@,%)
[root@sonam Desktop]#
[root@sonam Desktop]#
[root@sonam Desktop]# sh Password_Validation.sh
Enter the Password
SonamVerma@1
Strong Password
[root@sonam Desktop]#
[root@sonam Desktop]#
```