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2KE20CS032

Assignment 3 :File Management

Additional comments (by course trainer):

step 5 : you should delete the testfolder1 along with the files, u shouldn't delete one by one step 11: you should have used different command, what if the file contains thousand lines, will u count it manually and subtract it?, u have to use different command for this

updated : please do refer for, *step 5 : page no 3 , for step 11 : page no 8.*

TASK 1

1.Create few folders “testfolder1”,“testfolder2” in your home directory & list the folders that u have created

```
C:\Users\resq>ssh root@192.168.56.101
root@192.168.56.101's password:
Last login: Mon May 15 17:05:06 2023
[root@localhost ~]# ls
anaconda-ks.cfg  original-ks.cfg  test.txt
[root@localhost ~]# mkdir testfolder1 testfolder2
[root@localhost ~]# ls
anaconda-ks.cfg  original-ks.cfg  testfolder1  testfolder2  test.txt
```

2.Create few files in testfolder1 named “file1.txt”,“file2.txt”,“file3.txt”

```
[root@localhost ~]# cd testfolder1
[root@localhost testfolder1]# touch file1.txt file2.txt file3.txt
[root@localhost testfolder1]# ls -l
total 0
-rw-r--r--. 1 root root 0 May 15 17:09 file1.txt
-rw-r--r--. 1 root root 0 May 15 17:09 file2.txt
-rw-r--r--. 1 root root 0 May 15 17:09 file3.txt
```

3.Copy “file1.txt” and “file2.txt” from testfolder1 to testfolder2

```
[root@localhost ~]# cd testfolder2
[root@localhost testfolder2]# pwd
/root/testfolder2
[root@localhost testfolder2]# cd -
/root
[root@localhost ~]# cd testfolder1
[root@localhost testfolder1]# ls -l
total 0
-rw-r--r--. 1 root root 0 May 15 17:09 file1.txt
-rw-r--r--. 1 root root 0 May 15 17:09 file2.txt
-rw-r--r--. 1 root root 0 May 15 17:09 file3.txt
[root@localhost testfolder1]# cp file1.txt file2.txt /root/testfolder2
```

```
[root@localhost ~]# cd testfolder2
[root@localhost testfolder2]# ls -l
total 0
-rw-r--r--. 1 root root 0 May 15 17:16 file1.txt
-rw-r--r--. 1 root root 0 May 15 17:16 file2.txt
```

4. Create a softlink for “file3.txt” in testfolder2.

```
[root@localhost ~]# ln -s /root/testfolder1/file3.txt /root/testfolder2
[root@localhost ~]# stat /root/testfolder2
  File: '/root/testfolder2'
  Size: 57          Blocks: 0          IO Block: 4096   directory
Device: 801h/2049d Inode: 101322872   Links: 2
Access: (0755/drwxr-xr-x)  Uid: (  0/   root)   Gid: (  0/   root)
Context: unconfined_u:object_r:admin_home_t:s0
Access: 2023-05-15 17:17:15.781780324 +0000
Modify: 2023-05-15 17:42:17.164043274 +0000
Change: 2023-05-15 17:42:17.164043274 +0000
Birth: -
[root@localhost ~]# stat /root/testfolder1/file3.txt
  File: '/root/testfolder1/file3.txt'
  Size: 0           Blocks: 0          IO Block: 4096   regular empty file
Device: 801h/2049d Inode: 67151050   Links: 1
Access: (0644/-rw-r--r--) Uid: (  0/   root)   Gid: (  0/   root)
Context: unconfined_u:object_r:admin_home_t:s0
Access: 2023-05-15 17:09:51.017630397 +0000
Modify: 2023-05-15 17:09:51.017630397 +0000
Change: 2023-05-15 17:09:51.017630397 +0000
```

```
ln: failed to create symbolic link '/root/testfolder2/file3.txt': File exists
[root@localhost ~]# cd testfolder2
[root@localhost testfolder2]# ls -la
total 0
drwxr-xr-x. 2 root root  57 May 15 17:42 .
dr-xr-x---. 4 root root 212 May 15 17:06 ..
-rw-r--r--. 1 root root   0 May 15 17:16 file1.txt
-rw-r--r--. 1 root root   0 May 15 17:16 file2.txt
lrwxrwxrwx. 1 root root  27 May 15 17:42 file3.txt -> /root/testfolder1/file3.txt
[root@localhost testfolder2]# cd
```

5. Delete “testfolder1” along with the files inside.

Type 1 : deleting one by one.

```
[root@localhost testfolder1]# rm file1.txt file2.txt file3.txt
rm: remove regular empty file 'file1.txt'?
rm: remove regular empty file 'file2.txt'? y
rm: remove regular empty file 'file3.txt'?
[root@localhost testfolder1]# ls -a
.  ..  file1.txt  file3.txt
[root@localhost testfolder1]# ls
file1.txt  file3.txt
[root@localhost testfolder1]# rm file1.txt
rm: remove regular empty file 'file1.txt'? yes
[root@localhost testfolder1]# rm file1.txt file2.txt file3.txt
rm: cannot remove 'file1.txt': No such file or directory
rm: cannot remove 'file2.txt': No such file or directory
rm: remove regular empty file 'file3.txt'? yes
[root@localhost testfolder1]# ls
[root@localhost testfolder1]# cd -
/root
[root@localhost ~]# rmdir testfolder1
[root@localhost ~]# ls -a
.  anaconda-ks.cfg  .bash_logout  .bashrc  original-ks.cfg  testfolder2
.. .bash_history   .bash_profile .cshrc    .tcshrc         test.txt
```

Type 2: Deleting the whole folder The following command will do it for you. Use caution though if this isn't your intention as this also removes files in the directory and subdirectories.

rm -rf directoryname

```
C:\Users\resq>ssh root@192.168.56.101
root@192.168.56.101's password:
Last login: Thu May 18 09:52:24 2023
[root@localhost ~]# ls
anaconda-ks.cfg  apps  fruits.pdf  fruits.txt  my_ip_addrss  original-ks.cfg  testfolder2  test.txt
[root@localhost ~]# mkdir testfolder1
[root@localhost ~]# cd testfolder1
[root@localhost testfolder1]# touch file1.txt file2.txt
[root@localhost testfolder1]# cd -
/root
[root@localhost ~]# rm -rf testfolder1
[root@localhost ~]# ls -l
total 32
-rw-----. 1 root root 5570 Apr 30 2020 anaconda-ks.cfg
drwxr-xr-x. 3 root root 18 May 16 11:08 apps
-rw-r--r--. 1 root root 2147 May 16 11:34 fruits.pdf
-rw-r--r--. 1 root root 574 May 16 11:23 fruits.txt
-rw-r--r--. 1 root root 693 May 16 12:25 my_ip_addrss
-rw-----. 1 root root 5300 Apr 30 2020 original-ks.cfg
drwxr-xr-x. 2 root root 40 May 15 17:55 testfolder2
-rw-r--r--. 1 root root 31 May 12 10:00 test.txt
[root@localhost ~]#
```

6. Find the dangling soft link and delete.

```
[root@localhost ~]# cd testfolder2
[root@localhost testfolder2]# ls -la
total 0
drwxr-xr-x. 2 root root 57 May 15 17:42 .
dr-xr-x---. 3 root root 193 May 15 17:51 ..
-rw-r--r--. 1 root root 0 May 15 17:16 file1.txt
-rw-r--r--. 1 root root 0 May 15 17:16 file2.txt
lrwxrwxrwx. 1 root root 27 May 15 17:42 file3.txt -> /root/testfolder1/file3.txt
[root@localhost testfolder2]# unlink file3.txt
[root@localhost testfolder2]# ls -la
total 0
drwxr-xr-x. 2 root root 40 May 15 17:55 .
dr-xr-x---. 3 root root 193 May 15 17:51 ..
-rw-r--r--. 1 root root 0 May 15 17:16 file1.txt
-rw-r--r--. 1 root root 0 May 15 17:16 file2.txt
[root@localhost testfolder2]#
```

TASK 2

7. Create nested directories `"/root/apps/app1/bin"` using single `mkdir` command.

```
[root@localhost ~]# ls
anaconda-ks.cfg  original-ks.cfg  testfolder2  test.txt
[root@localhost ~]# mkdir /root/apps/app1/bin
mkdir: cannot create directory '/root/apps/app1/bin': No such file or directory
[root@localhost ~]# mkdir -p /root/apps/app1/bin
[root@localhost ~]# ls -l
total 20
-rw-----. 1 root root 5570 Apr 30  2020 anaconda-ks.cfg
drwxr-xr-x. 3 root root  18 May 16 11:08 apps
-rw-----. 1 root root 5300 Apr 30  2020 original-ks.cfg
drwxr-xr-x. 2 root root  40 May 15 17:55 testfolder2
-rw-r--r--. 1 root root  31 May 12 10:00 test.txt
```

8. Create a file named `fruits.txt` inside `"/root/apps/app1/bin"` and copy the contents attached in the pdf.

Filename	Filesize	Filetype	Last modified	Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
..				..					
Assignment		File folder	12-05-2023 19:40:55	apps		File folder	16-05-2023 16:...	drwxr-xr-x	root root
docxx.pdf	109,439	Adobe Acrobat Do...	16-05-2023 06:46:31	testfolder2		File folder	15-05-2023 23:...	drwxr-xr-x	root root
fruits.pdf	2,147	Adobe Acrobat Do...	16-05-2023 17:03:14	.bash_history	1,136	BASH_HIST...	16-05-2023 16:...	-rw-----	root root
fruits.txt	574	Text Document	16-05-2023 16:47:31	.bash_logout	18	BASH_LOG...	29-12-2013 07:...	-rw-r--r--	root root
				.bash_profile	176	BASH_PRO...	29-12-2013 07:...	-rw-r--r--	root root
				.bashrc	176	BASHRC File	29-12-2013 07:...	-rw-r--r--	root root
				.cshrc	100	CSHRC File	29-12-2013 07:...	-rw-r--r--	root root
				.tcshrc	129	TCSHRC File	29-12-2013 07:...	-rw-r--r--	root root
				anaconda-ks.cfg	5,570	CFG File	01-05-2020 03:...	-rw-----	root root

Disclaimer: after transferring pdf its contents are not showing properly.

Thus, I asked permission of sir and converted in to txt document and transferred using file zilla application software.

Local site: C:\Users\resq\Desktop\Gradius\				Remote site: /root					
<div><div>Desktop</div><div>8056217640</div><div>8056218009</div><div>Gradius</div><div>M. Resq</div></div>				<div><div>? /</div><div>root</div></div>					
Filename	Filesize	Filetype	Last modified	Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
..				..					
Assignment		File folder	12-05-2023 19:40:55	apps		File folder	16-05-2023 16:...	drwxr-xr-x	root root
docxx.pdf	109,439	Adobe Acrobat Do...	16-05-2023 06:46:31	testfolder2		File folder	15-05-2023 23:...	drwxr-xr-x	root root
fruits.txt	574	Text Document	16-05-2023 16:47:31	.bash_history	1,136	BASH_HIST...	16-05-2023 16:...	-rw-----	root root
				.bash_logout	18	BASH_LOG...	29-12-2013 07:...	-rw-r--r--	root root
				.bash_profile	176	BASH_PRO...	29-12-2013 07:...	-rw-r--r--	root root
				.bashrc	176	BASHRC File	29-12-2013 07:...	-rw-r--r--	root root
				.cshrc	100	CSHRC File	29-12-2013 07:...	-rw-r--r--	root root
				.tcshrc	129	TCSHRC File	29-12-2013 07:...	-rw-r--r--	root root
				anaconda-ks.cfg	5,570	CFG File	01-05-2020 03:...	-rw-----	root root

And copied

```
[root@localhost ~]# ls
anaconda-ks.cfg  apps  fruits.pdf  fruits.txt  original-ks.cfg  testfolder2  test.txt
[root@localhost ~]# cp fruits.txt /root/apps/app1/bin
[root@localhost ~]# cd /root/apps/app1/bin
[root@localhost bin]# ls -a
.  ..  fruits.txt
```

9. Display the contents in the `"fruits.txt"` using `more` command.

```
[root@localhost bin]# more fruits.txt
Apple
Apricot
Avocados
Banana
Blueberry
BellFruit/RoseApple
Custardapple
Currant
Coconut
Cashewfruit
Cherry
Cranberry
Durian
Datefruit
Dragonfruit
Elderberry
Fig
Guava
Grapes
Gooseberry
Hackberry
Jackfruit
Jambool
Jujube
Kiwi
Kokum/Mangosteen
Lemon/LimeLychee
Longan
Melon/Cucumber
Mangofruit
MulberryOrange
PineApple
Peach
Pomegranate
Palmfruit
Pear
Plum
Papaya
```

10. Display the contents in the “fruits.txt” using less command.

```
[root@localhost bin]# less fruits.txt
[root@localhost bin]#
```

Note: after using less command the content displayed and after we need to press “q” to quit.

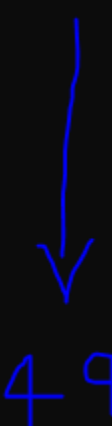
```
Apple
Apricot
Avocados
Banana
Blueberry
BellFruit/RoseApple
Custardapple
Currant
Coconut
Cashewfruit
Cherry
Cranberry
Durian
Datefruit
Dragonfruit
Elderberry
Fig
Guava
Grapes
Gooseberry
Hackberry
Jackfruit
Jambool
Jujube
Kiwi
Kokum/Mangosteen
Lemon/LimeLychee
Longan
Melon/Cucumber
Mangofruit
MulberryOrange
PineApple
Peach
Pomegranate
Palmfruit
Pear
Plum
Papaya
Pithecellobiumdulce
Passion
Raspberries
Rambutan
Strawberry
fruits.txt
```

11. Display the last 5 lines in the "fruits.txt".

Type 1 : counting the number of lines

Note: to how the how many lines we can use scripting language but I have used "cat -n filename" where -n represents number of lines present in the fruits.txt file.

```
[root@localhost bin]# cat -n fruits.txt
 1 Apple
 2 Apricot
 3 Avocados
 4 Banana
 5 Blueberry
 6 BellFruit/RoseApple
 7 Custardapple
 8 Currant
 9 Coconut
10 Cashewfruit
11 Cherry
12 Cranberry
13 Durian
14 Datefruit
15 Dragonfruit
16 Elderberry
```



Then I subtracted the total number of lines and printed the required line where (+45 indicates including 45th line to last line print it.)

```
[root@localhost bin]# more +45 fruits.txt
Starfruit
SweetLimeSugarCane
Tamarind
Watermelon
WoodApple
[root@localhost bin]#
```

Type 2 : Using **head tail** command, here head refers to starting point of file and tail refers to end point of files and we do need to use the integer value to do so.

```
Last login: Thu May 18 09:53:32 2023 from 192.168.56.1
[root@localhost ~]# ls -a
.  anaconda-ks.cfg  .bash_history  .bash_profile  .cshrc  fruits.txt  original-ks.cfg  testfolder2
.. apps            .bash_logout  .bashrc        fruits.pdf  my_ip_addrss  .tcshrc        test.txt
[root@localhost ~]# tail -5 fruits.txt
SweetLime
SugarCane
Tamarind
Watermelon
WoodApple
[root@localhost ~]#
```


TASK 3

12. Create a hidden file using touch command(ex:touch.hidden.txt).

Creating the hidden file

```
[root@localhost bin]# touch .test_hidden.txt
[root@localhost bin]# ls -l
total 4
-rw-r--r--. 1 root root 574 May 16 11:52 fruits.txt
```

13. Display the hidden file using “ls-a” command

```
[root@localhost bin]# ls -a
.  ..  fruits.txt  .test_hidden.txt
```

14. Display the current working Directory (you need to find out the command).

```
[root@localhost bin]# pwd
/root/apps/app1/bin
```

15. Display your ip address using grep command.

Thus to your ip address using grep command we can use scripting language but as far I use piping concept that is I transfer one output of command to another and search in that file using grep command which helps to find the patterns in file.

Type 1

```
[root@localhost ~]# ip a > my_ip_addrss
[root@localhost ~]# grep -i "inet" my_ip_addrss
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 192.168.56.101/24 brd 192.168.56.255 scope global noprefixroute dynamic eth0
    inet6 fe80::5054:ff:fe4d:77d3/64 scope link
[root@localhost ~]#
```

Type 2

```
[root@localhost ~]# grep -i "192*" my_ip_addrss
    inet 192.168.56.101/24 brd 192.168.56.255 scope global noprefixroute dynamic eth0
[root@localhost ~]#
```