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2KE20CS032

Assignment 3

TASK 1

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

```
[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
```

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".

Note: to know 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]#
```

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 ~]#
```