OC PRACTICE ASSIGNMENT - 1

roll no:- S20180010135

1ans)

$(1001101)_2$ = 2^6(1) +2^5(0) + 2^4(0) + 2^3(1) + 2^2(1) +2^1(0) + 2^0(1)

==> $(1001101)_2 = (77)_{10}$

2ans)

$(1539)_{10}$ = 1539/2 = 769+1

769/2 = 384 +1

384/2 =192 +0

192/2 = 96 +0

96/2 = 48 +0

48/2 = 24 +0

24/2 = 12 +0

12/2 = 6 +0

6/2 = 3 +0

3/2 = 1 +1

==> $(1539)_{10} = (11000000011)_2$

3ans)

a) $(1111)_2 = (31)_{10}$

b) $(101101)_2 = (45)_{10}$

c) $(1100011)_2 = (99)_{10}$

d) $(101)_2 = (5)_{10}$

e) $(0.11)_2 = (0.75)_{10}$

f) $(101.11)_2 = (5.75)_{10}$

g) $(1010)_2 = (10)_{10}$

h) $(10100)_2 = (20)_{10}$

i) $(101000)_2 = (40)_{10}$

4ans)

from my observation 3 (f,g,i) we can say when we increase a zero on the right most end then the decimal value will double.

5ans)

ex :-

$(10010)_2 = ((0001)(0010))_2$

$= (12)_{16}$

$(10010)_2 = ((010)(010))_2$

$= (22)_8$

$(10010)_2 = 2^4(1) + 2^3(0) + 2^2(0) + 2^1(1) + 2^0(0)$

$\Longrightarrow (10010)_2 = (18)_{10}$

binary	octal	decimal	hexadecimal
00000	0	0	0
00001	1	1	1
00010	2	2	2
00011	3	3	3
00100	4	4	4
00101	5	5	5
00110	6	6	6
00111	7	7	7
01000	10	8	8
01001	11	9	9
01010	12	10	A
01011	13	11	B
01100	14	12	C
01101	15	13	D
01110	16	14	E
01111	17	15	F
10000	20	16	10
10001	21	17	11

10010	22	18	12

6ans)

$(100110110101)_2 = ((1001)(1011)(0101)) = (9B5)_{16}$

$= ((100)(110)(110)(101)) = (4665)_8$

binary	octal	decimal	hexadecimal
100110110101	4665	2485	9B5
11111011100	3734	2012	7DC
1010110100	1264	692	2B4

7ans)

	hexadecimal	binary	decimal
C	43	1000011	67
c	63	1100011	99
Y	59	1011001	89
y	79	1111001	121

8ans)

unit	Number of bits (n)	Largest number (2^n-1)	Number of values (2^n)
bit	1	2^1 -1 = 1	2^1 = 2
2 bit	2	3	4
nibble	4	15	16
byte	8	255	256
1k	10	1023	1024
2 bytes	16	65535	65536
3 bytes	24	16777215	16777216
Full word* (signed long)	32	4294967295	4294967296

9ans)

value	Signed binary	value	Signed binary
+7	0111	**-1**	1001
+6	0110	**-2**	1010
+5	0101	**-3**	1011
+4	0100	**-4**	1100
+3	0011	**-5**	1101
+2	0010	**-6**	1110
+1	0001	**-7**	1111
0	0000	**-8**	1000

10ans)

$(0.78125)_{10}$ = 0.78125 *2 = 1.5625 =1+ 0.5625

0.5625 *2 = 1 +0.1250

0.1250*2 = 0 + 0.250

0.250*2 = 0 + 0.500

0.500*2 = 1 + 0.000

==> $(0.78125)_{10}$ = $(0.11001)_2$

$(1.25)_{10}$ = $(1.01)_2$

$(78.725)_{10}$ = $(1001110.1011001)_2$

OC PRACTICE ASSIGNMENT – 2

- S20180010135

1ans)

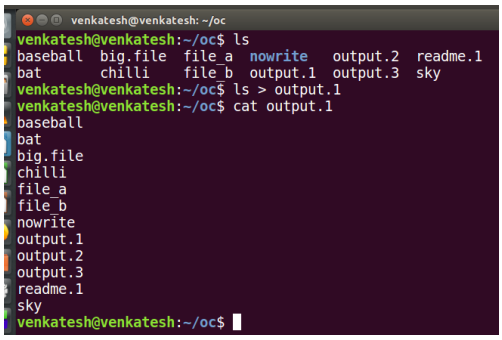
when we use **man** command we are getting all the manual on ls command in well organised way but where as when we use - - **help** command we are getting all the manual form in a discrete manner.

Here we type **man ls**

(or) ls --help

2ans)

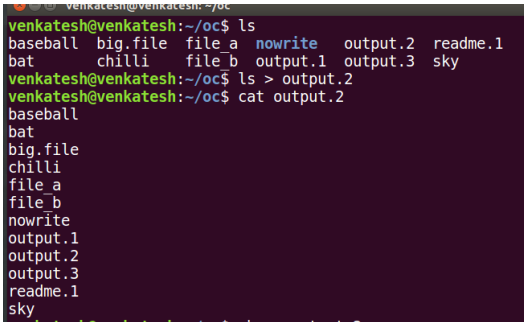
when we use **ls > output.1** it will overwrites the current information in the output.1 file with the names of all the files and directories in the current directory.



3ans)

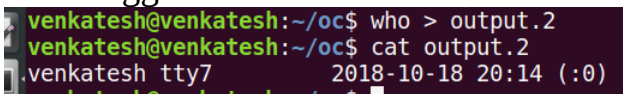
ls > output.2

will save the name of all the files and directories in the current directory in the file output.2

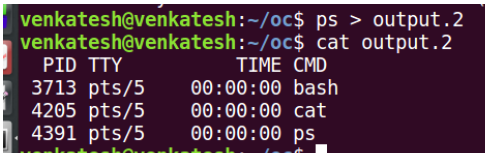


who > output.2

will overwrite the current information in output.2 with the user name and the last date and time logged in.



ps > output.2

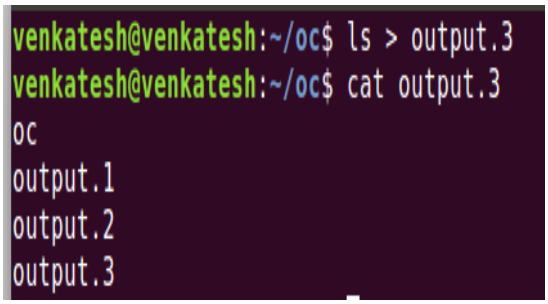


it shows the list of processors that are going on amd terminal type and executing time we can also see the long list of the list of processors using the command **ps -f**

4ans)

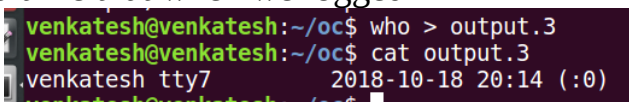
ls > output.3

will save the name of all the files and directories in the current directory in the file output.3

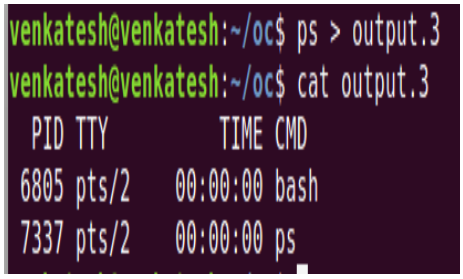


who > output.3

will overwrite the current information in output.3 with the user name and the last date and time that when we logged in



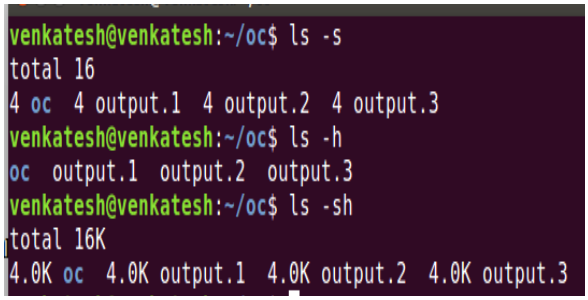
ps > output.3



it shows the list of processors that are going on amd terminal type and executing time we can also see the long list of the list of processors using the command **ps -f**

5ans)

if we use **ls -s** to get the file blocks and with **ls -h** for human readable sizes so **ls -sh** for getting the file size.



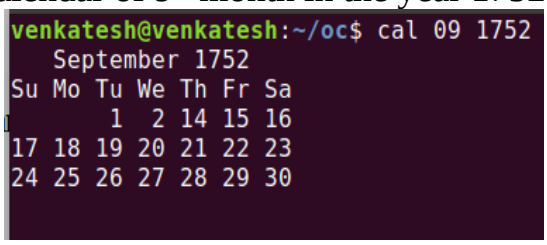
6ans)

mv original copied.file

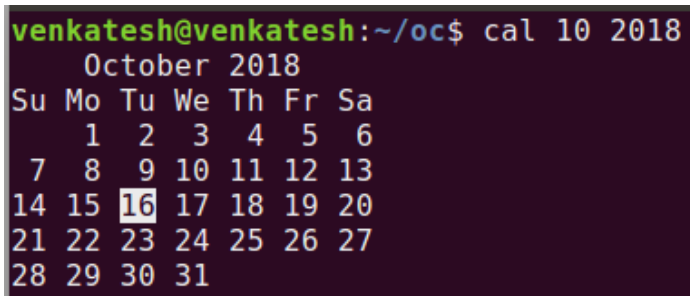
this command will renames if there is no directory named with copied.file in this current directory

7ans)

it prints the calendar of 9th month in the year 1752



if we type **cal 10 2018** it prints 2018 october calendar

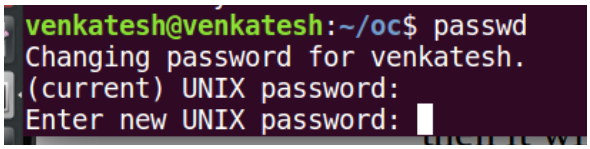


8ans)

to change the login password through terminal we should type

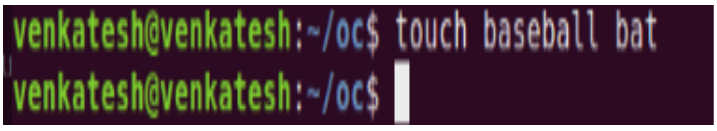
passwd

then it will ask current password and the new password so we can change the password.



9ans)

we can see in the terminal from whose system and whose account we logged on

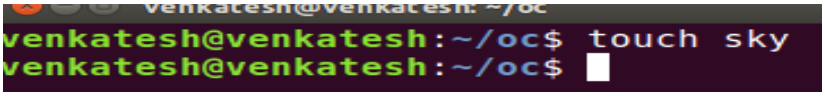


here **venkatesh@venkatesh** in which the first venkatesh is user name and the second one is system name

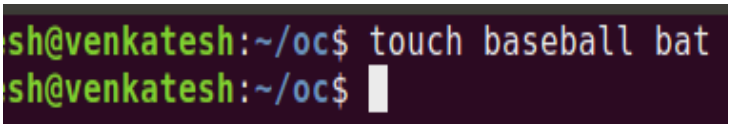
and also using **who** command to print the user name and when he logged on.

10ans)

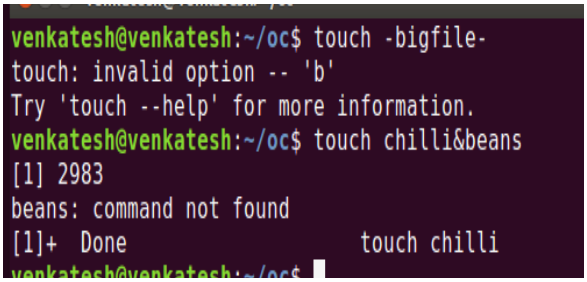
the **touch** command will create new empty file and allows the terminal for reading the next command



11ans)among the given three commands first one and the last one will create a file



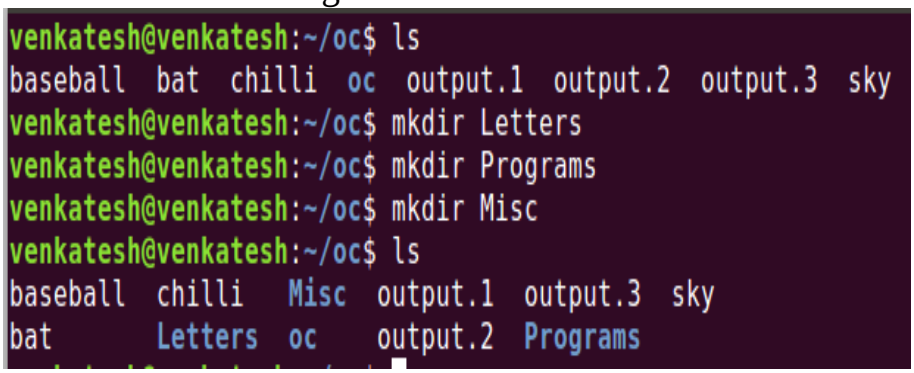
and the second one shows error message thinking that the **-b** we typed there is a comand for some operation which is not in the **touch** command list



where as first one creates two files baseball and bat here in the last one **touch chilli&beans** create a new file named chilli and shows the linking command is not found in the touch command list so when we see the list of files present in that directory we can see

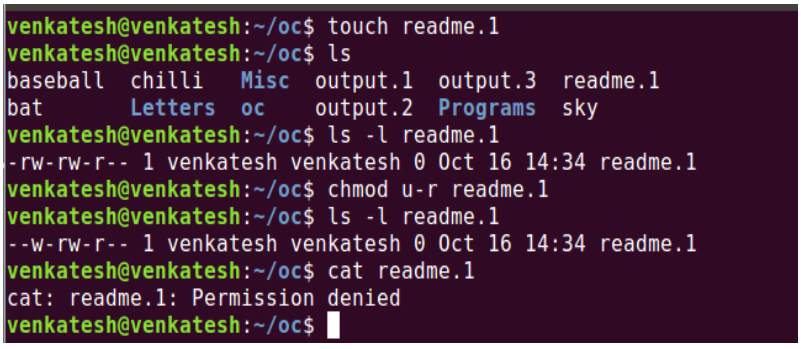
12ans)

we can create directories using **mkdir** command



13ans)

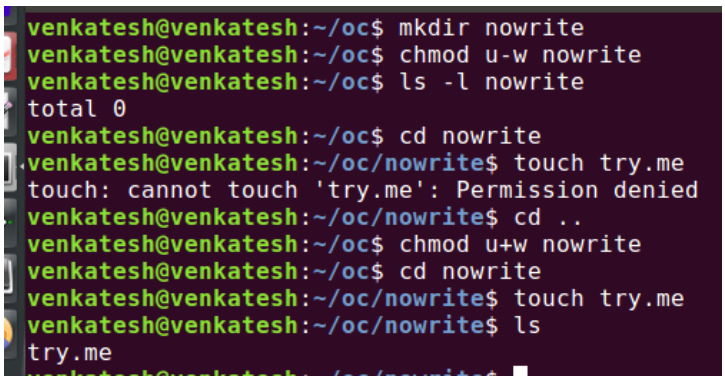
to change permission we should use **chmod** command and to remove the permission from user we should use **chmod u-r file name** we can see the list of permision of a file/directory using **chmod -l file/directory name**



14ans)

a) using **chmod u-w nowrite** we can remove the write permission of this directory will be removed so we cant add/remove any file from this directory.

b) we can come back to the previous directory using **cd ..** and now we can add the write command to that file using **chmod u+w nowrite** now we can add? remove files from this directory.



15ans)

ls -l /bin > big.file will create a file named big.file and enters all the information about the permission ,metadata , user, system name, size information of all the files in this new file

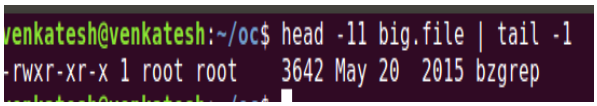
a) cat big.file shows all the content in the file at once

b) more big.file shows all the contents page by page when we press enter

c) more will shows page by page or line by line where as cat will shows all the content at once

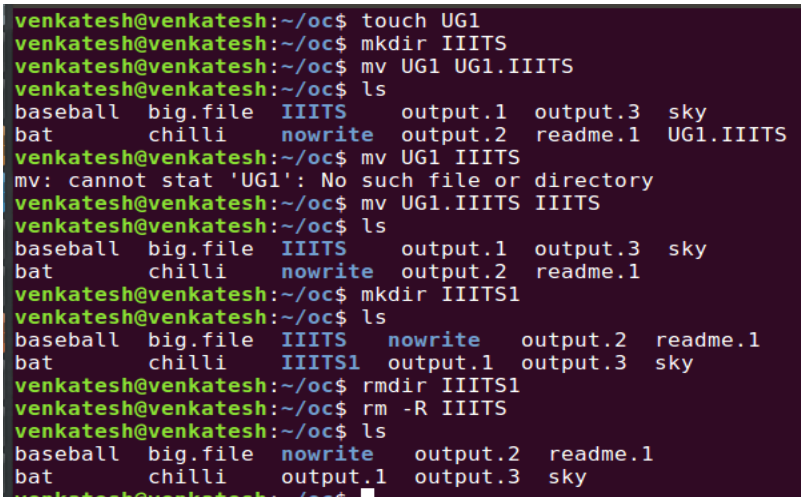
16ans)

we can use **head -11** command to print the first 11 lines now we can by pass the command using | and we can use **tail -1** to print the last line in the **head -11** command



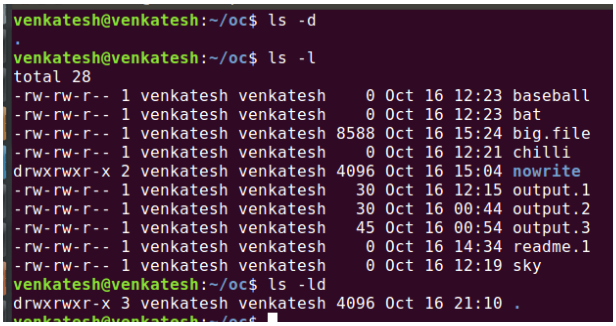
17ans)

we can create a file using **touch** command and a file using **mkdir** for moving a file **mv filename directory_where_it_should_move** and to delete a directory we can use rmdir but to remove a directory containing files we should use **rm -R direc3toryname** it do a recursive operation untilm all the files and the folder deletes



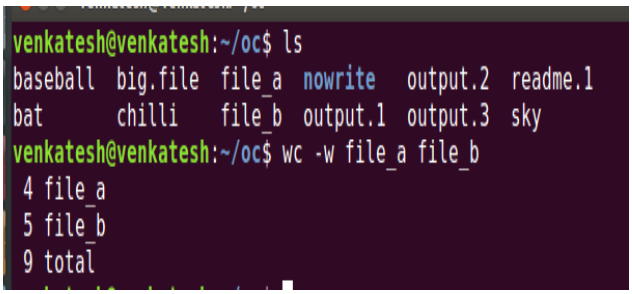
18ans)

ls -l gives gives long list of files and directories where as **ls -dl** gives the longlist of the **.** and **..** files



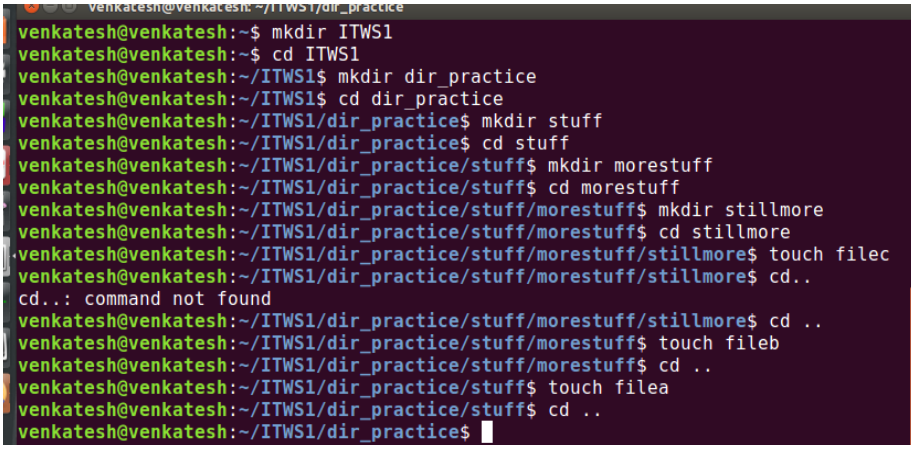
19ans)

here we are using wc -w comand to get the words count of the file



20ans)

a)& b) & c) we can create a file using **touch filename** command and a directory using **mkdir directoryname** and to enter a folder using **cd foldername** command



d) **ls -R** undergoes recursive program and prints all the files and folders present that are linking to the home directory

e) we can enter text in afile by creating using **cat >> filename**

```
venkatesh@venkatesh:~$ cd ITWS1
venkatesh@venkatesh:~/ITWS1$ cd dir_practice
venkatesh@venkatesh:~/ITWS1/dir_practice$ ls
'stuff
venkatesh@venkatesh:~/ITWS1/dir_practice$ cd stuff
venkatesh@venkatesh:~/ITWS1/dir_practice/stuff$ cat >> mystuff
If you can read the message,
you have accessed my account
Congratulations...
^Z
[1]+  Stopped                 cat >> mystuff
venkatesh@venkatesh:~/ITWS1/dir_practice/stuff$
```

f) we can rename a file using the command **mv filename renamefile**

```
venkatesh@venkatesh:~/ITWS1/dir_practice/stuff/morestuff$ mv filec stillmore
venkatesh@venkatesh:~/ITWS1/dir_practice/stuff/morestuff$ cd stillmore
venkatesh@venkatesh:~/ITWS1/dir_practice/stuff/morestuff/stillmore$ ls
filec
```

g)

```
venkatesh@venkatesh:~$ cp ITWS1/dir_practice/stuff/filex.bak filex.bak
venkatesh@venkatesh:~$ cat filex.bak
venkatesh@venkatesh:~$
```

h)

-i asks the user whether to do that work or not

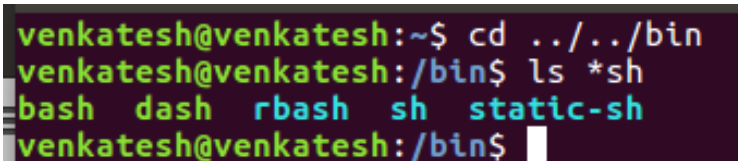
```
venkatesh@venkatesh:~$ cd ITWS1/dir_practice
venkatesh@venkatesh:~/ITWS1/dir_practice$ ls
stuff
venkatesh@venkatesh:~/ITWS1/dir_practice$ rm -i -R stuff
rm: descend into directory 'stuff'? Y
rm: remove regular empty file 'stuff/filex.bak'? Y
rm: remove regular file 'stuff/mystuff'? Y
rm: descend into directory 'stuff/morestuff'? Y
rm: descend into directory 'stuff/morestuff/stillmore'? Y
rm: remove regular empty file 'stuff/morestuff/stillmore/filec'? Y
rm: remove directory 'stuff/morestuff/stillmore'? Y
rm: remove directory 'stuff/morestuff'? Y
rm: remove directory 'stuff'? Y
venkatesh@venkatesh:~/ITWS1/dir_practice$
```

OC PRACTICE ASSIGNMENT – 3

-S20180010135

1Ans)

to print all the files and directories that ends with sh i will use the command **ls *sh**



2Ans)

we can use ls with a [] meta characters and the * selects all the files that includes none.

3ans)

we can use ls with the meta characters [] which gives options selecting .c and .h files and the * selects all the files that includes none.

```
venkatesh@venkatesh:~$ touch 1.c
venkatesh@venkatesh:~$ touch 2.c
venkatesh@venkatesh:~$ touch 3.c
venkatesh@venkatesh:~$ touch 3.h
venkatesh@venkatesh:~$ touch 1.
venkatesh@venkatesh:~$ touch 1.h
venkatesh@venkatesh:~$ touch 2.h
venkatesh@venkatesh:~$ ls
1.   2.h  a.out         Desktop           format strings  linux.odt  Public
1.c  3.c  assignment.c   Documents         git             logisim    sai
1.h  3.h  assignments    Downloads         github          Music      Templates
2.c  a.c  boot.tar.gz    examples.desktop  html            Pictures   Videos
venkatesh@venkatesh:~$ ls *[.c,.h]
1.  1.c  1.h  2.c  2.h  3.c  3.h  a.c  assignment.c
```

4ans)

we can get all the files with r or g or i in the third place using metacharacters **[]** and using **?** Which will show all the files with atleast one character

```
venkatesh@venkatesh:~$ ls ??[r,g,i]*
format strings

logisim:

sai:
SAI KUMAR OC 2.odt  SAI KUMAR OC 3.odt  SAI KUMAR OC.odt
venkatesh@venkatesh:~$
```

5ans)

we can copy all the files that have character string into the Misc directory using the command

cp *[notes,misc]* Misc

```
venkatesh@venkatesh:~/oc$ ls
1misc1  1notes1  Misc  misc12  notes11
venkatesh@venkatesh:~/oc$ cp *[notes,misc]* Misc
cp: omitting directory 'Misc'
venkatesh@venkatesh:~/oc$ cd Misc
venkatesh@venkatesh:~/oc/Misc$ ls
1misc1  1notes1  misc12  notes11
venkatesh@venkatesh:~/oc/Misc$
```

6ans)

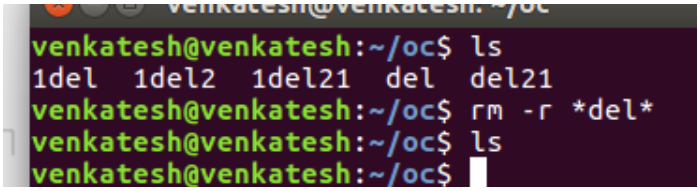
to move file we can use **mv source destiny**

to copy file we can use **cp source destiny**

```
venkatesh@venkatesh: ~/oc/UStoreIt
venkatesh@venkatesh:~/oc$ ls
copy.me  copy.me1  copy.me12  move.me  move.me1  move.me12  UStoreIt
venkatesh@venkatesh:~/oc$ cp copy.me* UStoreIt
venkatesh@venkatesh:~/oc$ ls
copy.me  copy.me1  copy.me12  move.me  move.me1  move.me12  UStoreIt
venkatesh@venkatesh:~/oc$ cd UStoreIt
venkatesh@venkatesh:~/oc/UStoreIt$ ls
copy.me  copy.me1  copy.me12
venkatesh@venkatesh:~/oc/UStoreIt$ cd ..
venkatesh@venkatesh:~/oc$ mv move.me* UStoreIt
venkatesh@venkatesh:~/oc$ ls
copy.me  copy.me1  copy.me12  UStoreIt
venkatesh@venkatesh:~/oc$ cd UStoreIt
venkatesh@venkatesh:~/oc/UStoreIt$ ls
copy.me  copy.me1  copy.me12  move.me  move.me1  move.me12
venkatesh@venkatesh:~/oc/UStoreIt$
```

7ans)

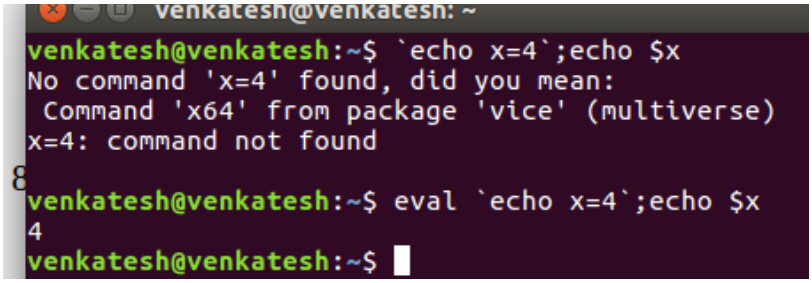
we can use **rm filename** to delete the file to do recursively we can use **rm -r filename**



8ans)

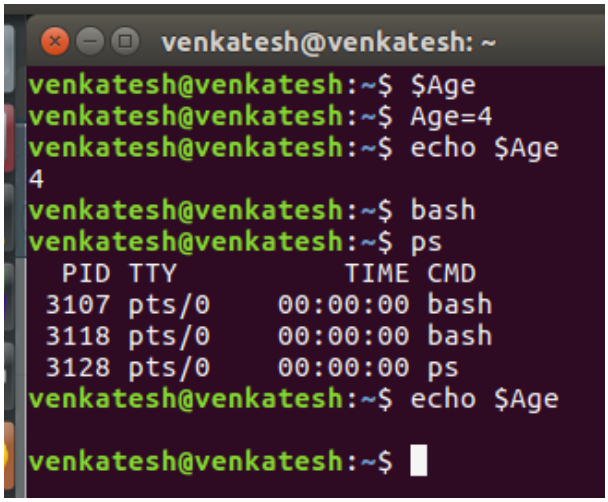
in (a) it treats as a command that is in ` ` so it prints no command found but in the (b) we use **eval** which assigns the value of x=4 so when we prints x next time it ptints x=4

; --> used to do the series of commands



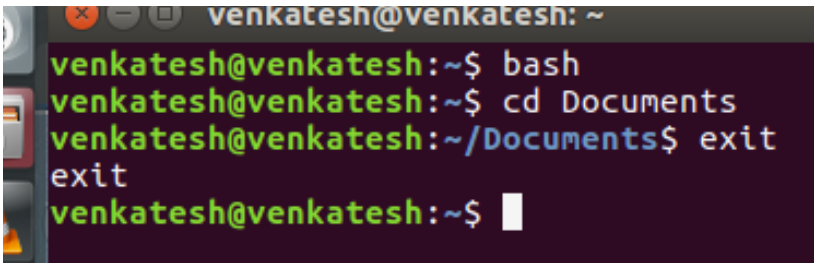
9ans)

here first we are defining the variable Age and assigning the value 4 so it will print this shell but if we call for another shell again it will show null because it is not defined globally.



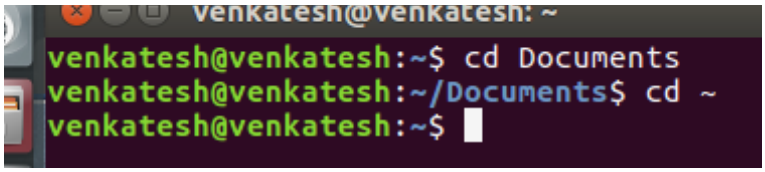
10ans)

if we call for a new shell and enter a directory on exiting it, in parent shell it will again comes to the home directory

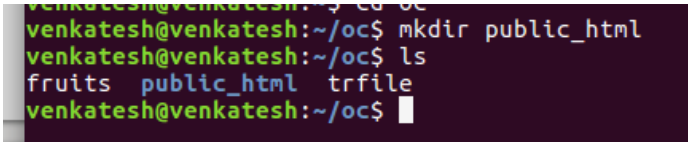


11ans)

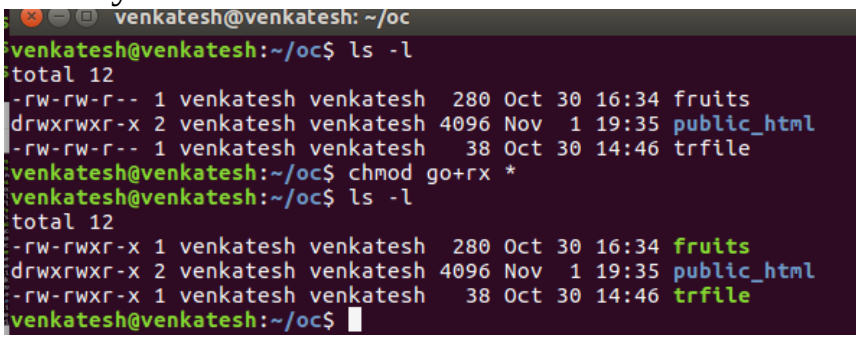
A. we can get to home directory using **cd ~** command



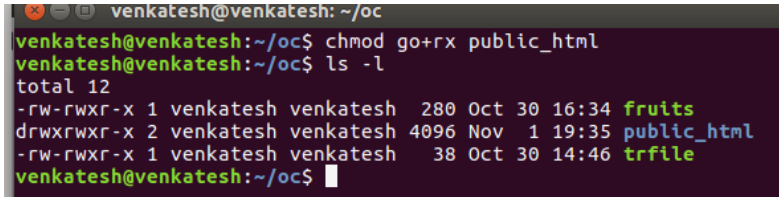
B. Make public_html a directory named



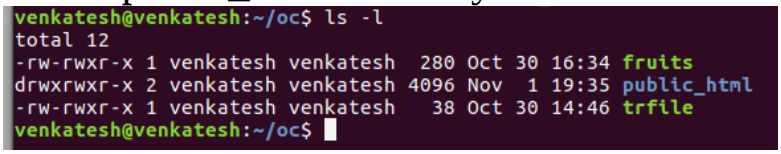
C. Allow group and others to be ableto read and execute on your homedirectory



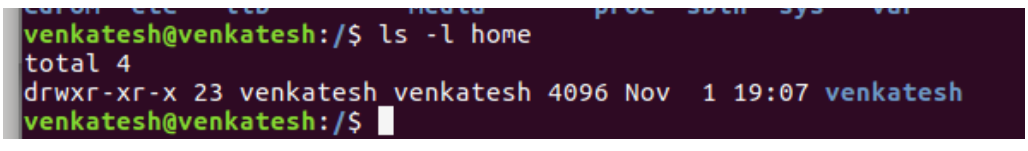
D. Allow group and others to be able to read and execute on the public_html directory



E. permissions for public_html directory



permissions for home directory



we can observe both the permissions are same

F, G.

```
venkatesh@venkatesh: ~/oc/public_html
venkatesh@venkatesh:~/oc$ cd public_html
venkatesh@venkatesh:~/oc/public_html$ touch index.html
venkatesh@venkatesh:~/oc/public_html$ ls
index.html
venkatesh@venkatesh:~/oc/public_html$ chmod go+r *
venkatesh@venkatesh:~/oc/public_html$ ls -l
total 0
-rw-rw-r-- 1 venkatesh venkatesh 0 Nov  1 19:49 index.html
venkatesh@venkatesh:~/oc/public_html$
```

H. permission of desktop files and public_html files

```
venkatesh@venkatesh:~/oc/public_html$ ls -l
total 0
-rw-rw-r-- 1 venkatesh venkatesh 0 Nov  1 19:49 index.html
venkatesh@venkatesh:~/oc/public_html$ cd ../../
venkatesh@venkatesh:~$ ls -l
total 10596
-rwxrwxrwx 1 venkatesh venkatesh     825 Oct 25 21:53 a.c
-rwxrwxr-x 1 venkatesh venkatesh    8856 Oct 31 19:32 a.out
-rwxrwxrwx 1 venkatesh venkatesh     927 Oct 26 21:55 assignment.c
drwxrwxr-x 2 venkatesh venkatesh    4096 Nov  1 19:07 assignments
-rwxrwxrwx 1 venkatesh venkatesh     390 Sep 20 19:55 boot.tar.gz
drwxr-xr-x 4 venkatesh venkatesh    4096 Nov  1 08:28 Desktop
drwxr-xr-x 2 venkatesh venkatesh    4096 Oct 24 23:35 Documents
drwxr-xr-x 2 venkatesh venkatesh    4096 Oct 29 22:09 Downloads
-rw-r--r-- 1 venkatesh venkatesh    8980 Oct 24 23:28 examples.desktop
-rwxrwxrwx 1 venkatesh venkatesh    2380 Sep 21 09:46 format strings
drwxrwxr-x 4 venkatesh venkatesh    4096 Oct 28 12:21 git
drwxrwxr-x 4 venkatesh venkatesh    4096 Oct 30 12:39 iota
-rw-rw-r-- 1 venkatesh venkatesh 8393371 Oct 25 17:24 linux.odt
drwxr-xr-x 3 venkatesh venkatesh    4096 Oct 25 07:29 Music
drwxrwxr-x 3 venkatesh venkatesh    4096 Nov  1 19:35 oc
drwxr-xr-x 4 venkatesh venkatesh    4096 Oct 25 22:49 Pictures
drwxr-xr-x 2 venkatesh venkatesh    4096 Oct 24 23:35 Public
-rw-rw-r-- 1 venkatesh venkatesh 2361099 Oct 27 22:16 S20180010135_practice assi
gnment 3.odt
drwxr-xr-x 2 venkatesh venkatesh    4096 Oct 24 23:35 Templates
drwxr-xr-x 2 venkatesh venkatesh    4096 Nov  1 18:48 Videos
venkatesh@venkatesh:~$
```

12ans)

```
venkatesh@venkatesh: ~/oc/reg_exp
venkatesh@venkatesh:~/oc$ mkdir reg_exp
venkatesh@venkatesh:~/oc$ cd reg_exp
venkatesh@venkatesh:~/oc/reg_exp$ cat > file1
^Z
[1]+  Stopped                 cat > file1
venkatesh@venkatesh:~/oc/reg_exp$ cat file1
Rather than teach your gadgets what to do,
Intel researchers say that in the not-too-distant future
they will learn about you on their own.
That means where you are, how you're feeling, and what you want.
It's actually not as creepy as it sounds.
Intel Chief Technology Officer and Director of Intel Labs Justin Rattner
took the stage Wednesday at the annual Intel Developer Forum
here to talk about the future of "context-aware computing,"
what Intel is doing about it, and how gadgets
can make life easier for their owners,
but in a way that the owners can control.
Context-aware computing is Intel's term for devices
that anticipate what people need or want and guide them accordingly.
The context is gathered through a combination of
"hard sensors"--cameras that detect movement and
GPS-based location information--and "soft sensors"—
such as calendar information or pieces of data you input into a device.
venkatesh@venkatesh:~/oc/reg_exp$
```

12.1 to 12.8)

```
venkatesh@venkatesh:~/oc/reg_exp$ egrep '^T' file1
That means where you are, how you're feeling, and what you want.
The context is gathered through a combination of
venkatesh@venkatesh:~/oc/reg_exp$ egrep '^t' file1
they will learn about you on their own.
took the stage Wednesday at the annual Intel Developer Forum
that anticipate what people need or want and guide them accordingly.
venkatesh@venkatesh:~/oc/reg_exp$ egrep '^G' file1
GPS-based location information--and "soft sensors"—
venkatesh@venkatesh:~/oc/reg_exp$ grep -i '^d' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '?$' file1
Rather than teach your gadgets what to do,
Intel researchers say that in the not-too-distant future
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The context is gathered through a combination of
"hard sensors"--cameras that detect movement and
GPS-based location information--and "soft sensors"—
such as calendar information or pieces of data you input into a device.
venkatesh@venkatesh:~/oc/reg_exp$ egrep '!$' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '#' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '\<the\>' file1
Intel researchers say that in the not-too-distant future
took the stage Wednesday at the annual Intel Developer Forum
here to talk about the future of "context-aware computing,"
but in a way that the owners can control.
venkatesh@venkatesh:~/oc/reg_exp$
```

12.9 to 12.15)

```
venkatesh@venkatesh:~/oc/reg_exp$ egrep '.not' file1
Intel researchers say that in the not-too-distant future
It's actually not as creepy as it sounds.
venkatesh@venkatesh:~/oc/reg_exp$ egrep '[?!]' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '$[?!]' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '[?!]$' file1
venkatesh@venkatesh:~/oc/reg_exp$ egrep '[^@!#%.A-Za-z]' file1
Rather than teach your gadgets what to do,
Intel researchers say that in the not-too-distant future
they will learn about you on their own.
That means where you are, how you're feeling, and what you want.
It's actually not as creepy as it sounds.
Intel Chief Technology Officer and Director of Intel Labs Justin Rattner
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what Intel is doing about it, and how gadgets
can make life easier for their owners,
but in a way that the owners can control.
Context-aware computing is Intel's term for devices
that anticipate what people need or want and guide them accordingly.
The context is gathered through a combination of
"hard sensors"--cameras that detect movement and
GPS-based location information--and "soft sensors"—
such as calendar information or pieces of data you input into a device.
venkatesh@venkatesh:~/oc/reg_exp$ egrep -i 'in a' file1
but in a way that the owners can control.
venkatesh@venkatesh:~/oc/reg_exp$ egrep 'e{2}' file1
That means where you are, how you're feeling, and what you want.
It's actually not as creepy as it sounds.
that anticipate what people need or want and guide them accordingly.
venkatesh@venkatesh:~/oc/reg_exp$
```
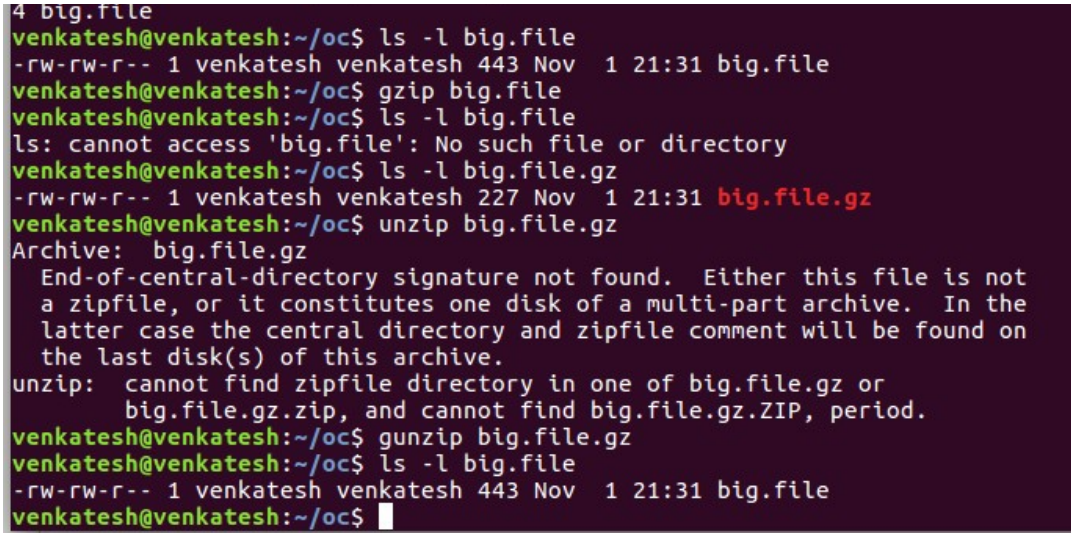

‘^T’ used to show the content of the file starts with T
‘^t’ used to show the content of the file starts with t
‘^G’ used to show the content of the file starts with G
-i ‘^d’ used to show the content of the file starts with d without case distinction
‘.not’ used to show all the content of the file highlighting (not)
‘\<the\>’ used to highlights the content of the file (the)
‘e{2}’ used to show all the content of the file highlighting (ee)

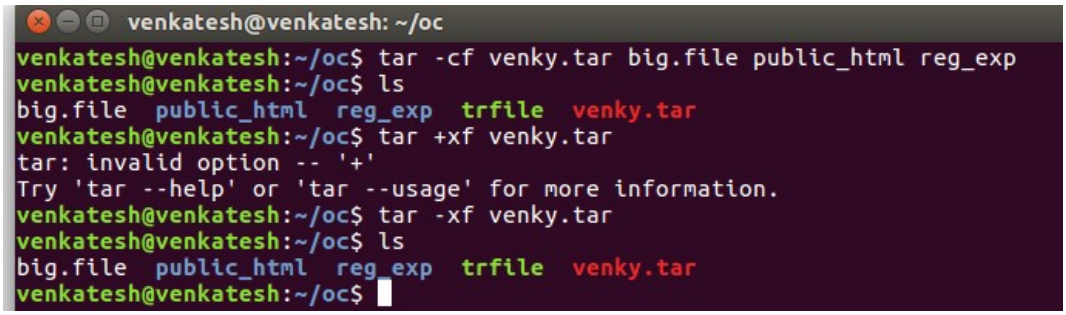
13ans)

compress the file using **zip** command and to uncompress the file using **gunzip** command



14ans)

Here we must insert the files into a file and then again we must unzip them. So as we must do for multiple files we must use tar. For unzip use must use the command **tar -xf**(extracting them)



15ans)

a) command i.e.. ps -fe is

shows all the process infirmation and their parent processor id

```
venkatesh@venkatesh:~/oc$ ps -fe
UID          PID  PPID  C STIME TTY          TIME CMD
root           1     0  0 20:40 ?        00:00:01 /sbin/init splash
root           2     0  0 20:40 ?        00:00:00 [kthreadd]
root           3     2  0 20:40 ?        00:00:00 [ksoftirqd/0]
root           5     2  0 20:40 ?        00:00:00 [kworker/0:0H]
root           7     2  0 20:40 ?        00:00:06 [rcu_sched]
root           8     2  0 20:40 ?        00:00:00 [rcu_bh]
root           9     2  0 20:40 ?        00:00:00 [migration/0]
root          10     2  0 20:40 ?        00:00:00 [watchdog/0]
root          11     2  0 20:40 ?        00:00:00 [watchdog/1]
root          12     2  0 20:40 ?        00:00:00 [migration/1]
root          13     2  0 20:40 ?        00:00:00 [ksoftirqd/1]
root          15     2  0 20:40 ?        00:00:00 [kworker/1:0H]
root          16     2  0 20:40 ?        00:00:00 [watchdog/2]
root          17     2  0 20:40 ?        00:00:00 [migration/2]
root          18     2  0 20:40 ?        00:00:00 [ksoftirqd/2]
root          20     2  0 20:40 ?        00:00:00 [kworker/2:0H]
root          21     2  0 20:40 ?        00:00:00 [watchdog/3]
root          22     2  0 20:40 ?        00:00:00 [migration/3]
root          23     2  0 20:40 ?        00:00:00 [ksoftirqd/3]
root          25     2  0 20:40 ?        00:00:00 [kworker/3:0H]
root          26     2  0 20:40 ?        00:00:00 [kdevtmpfs]
root          27     2  0 20:40 ?        00:00:00 [netns]
```

b) **ps -fe | more** shows page by page

```
venkatesh@venkatesh: ~/oc
UID          PID  PPID  C STIME TTY          TIME CMD
root           1     0  0 20:40 ?        00:00:01 /sbin/init splash
root           2     0  0 20:40 ?        00:00:00 [kthreadd]
root           3     2  0 20:40 ?        00:00:00 [ksoftirqd/0]
root           5     2  0 20:40 ?        00:00:00 [kworker/0:0H]
root           7     2  0 20:40 ?        00:00:06 [rcu_sched]
root           8     2  0 20:40 ?        00:00:00 [rcu_bh]
root           9     2  0 20:40 ?        00:00:00 [migration/0]
root          10     2  0 20:40 ?        00:00:00 [watchdog/0]
root          11     2  0 20:40 ?        00:00:00 [watchdog/1]
root          12     2  0 20:40 ?        00:00:00 [migration/1]
root          13     2  0 20:40 ?        00:00:00 [ksoftirqd/1]
root          15     2  0 20:40 ?        00:00:00 [kworker/1:0H]
root          16     2  0 20:40 ?        00:00:00 [watchdog/2]
root          17     2  0 20:40 ?        00:00:00 [migration/2]
root          18     2  0 20:40 ?        00:00:00 [ksoftirqd/2]
root          20     2  0 20:40 ?        00:00:00 [kworker/2:0H]
root          21     2  0 20:40 ?        00:00:00 [watchdog/3]
root          22     2  0 20:40 ?        00:00:00 [migration/3]
root          23     2  0 20:40 ?        00:00:00 [ksoftirqd/3]
root          25     2  0 20:40 ?        00:00:00 [kworker/3:0H]
root          26     2  0 20:40 ?        00:00:00 [kdevtmpfs]
root          27     2  0 20:40 ?        00:00:00 [netns]
--More--
```

c & d) here the output of first command will be sent to first command.

```
venkatesh@venkatesh:~/oc$ ps -fe | grep "/broot/b" | more
venkatesh@venkatesh:~/oc$ cd ..
venkatesh@venkatesh:~$ ps -fe | grep "/broot/b" | more
venkate+  5516  5248  0 22:18 pts/0    00:00:00 grep --color=auto /broot/b
venkatesh@venkatesh:~$ ps -fe | grep "/broot/b" | sort | more
venkate+  5526  5248  0 22:19 pts/0    00:00:00 grep --color=auto /broot/b
venkatesh@venkatesh:~$
```

16ans)

a) cat > command to store the content

b) use cat command to verify the content

c) use file command to find the file type

d)use the command “tail -4 stuff| head -3|cat > stuff.new “. this is the single line command to copy required content into stuff.new .

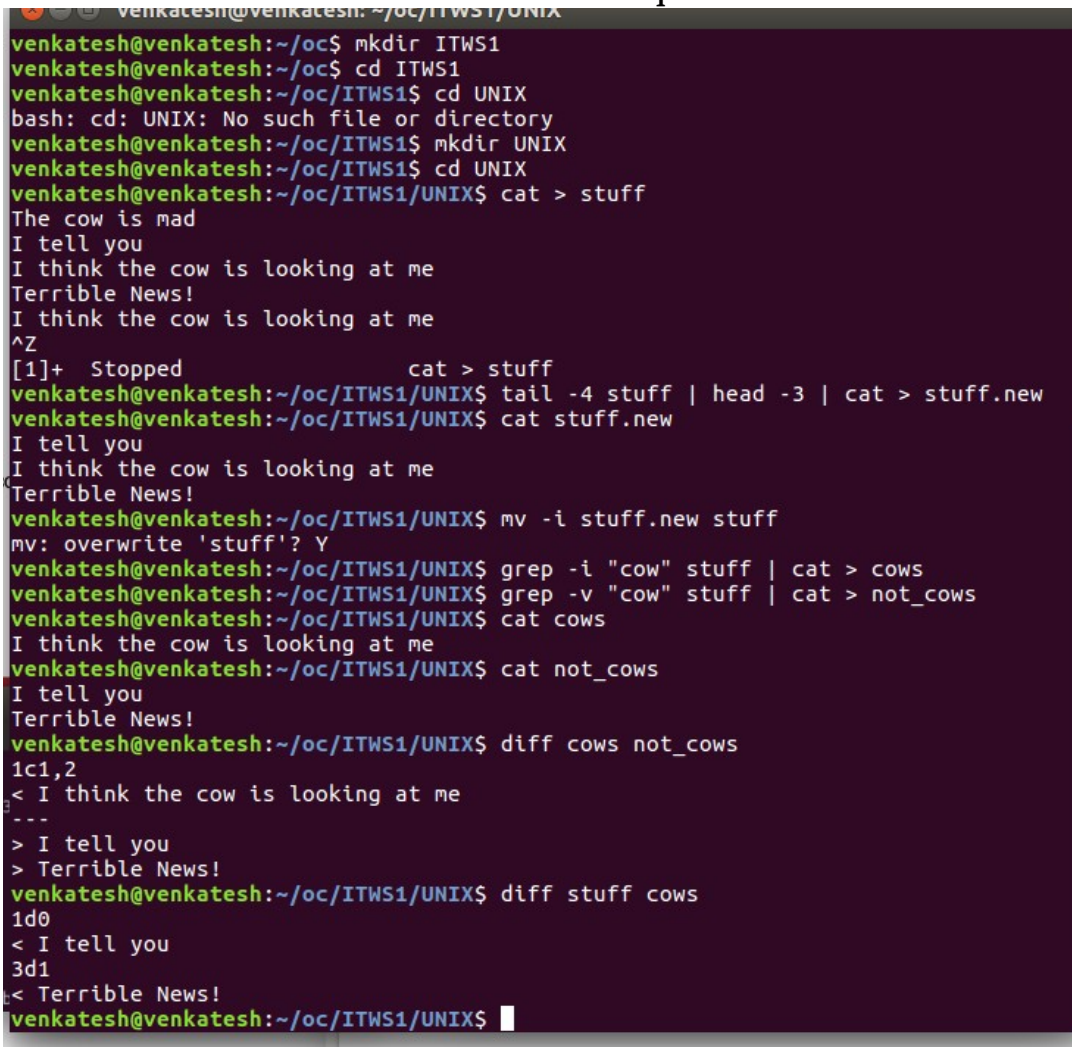
e) use again cat command to verify the content.

f)use mv -i command to rename the file so that the permission for overwriting is asked.

g) Now to transfer the lines which contain the word cow and doesn't contain cow use grep command and insert the output of first command into the cat command using pipe metacharacter.

h) -I is used for the whole pattern insertion and use cat to store the content.i)-v is used for invert insertion and use cat command to store the content.

j) From this we can understand that we must remove two lines which contain cow in that line to make stuff equal to cows.



17.ans) Make the directory using the given command.

Then again use the another given command to change the directory.

Now use touch command to create the given files.

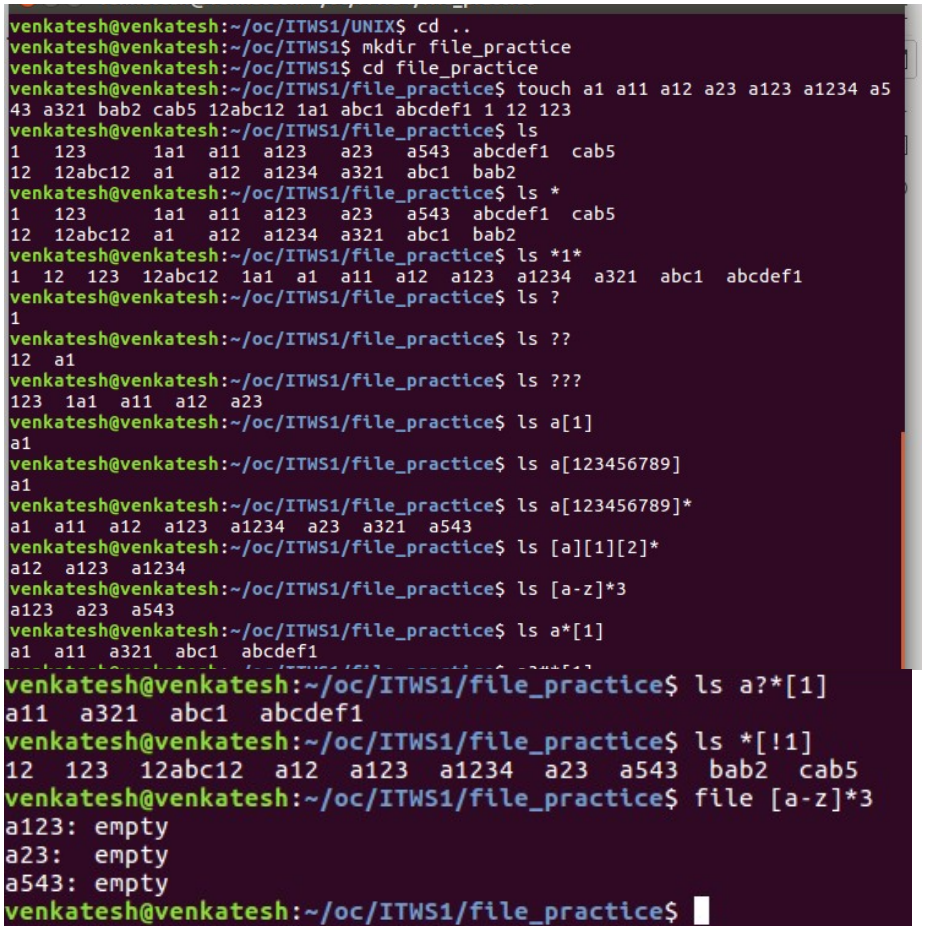
Then execute the commands one by one.

? shows a single character

* shows multiple characters

[] is a option character

! is a negation option shows except it



18ans)

a)use **gg** command to jump to the first line

b)**ctrl + f** to scroll down by one page

c) first we have to use **60gg** and then go to the 5th character and press **x** to delete the character

d) use **60gg** and then press **o** and input text **previous changed**.

e) press **esc** and then **:wq tmp**

f) use **gg** command and then press **I** in a new line and add **WARNING:**

g) press **w** in a new line

h) press **dw** and then **changed** to write **modified**

i) /\<**kill**\> command finds kill and then **5dd** to delete 5lines from there

j) **G** to go to last line

k) use **gg** command at first and then place cursor at the point then press **15x**

l) use **/bash** to find bash

m) cursor at **s** then press **~**
n) **50gg** and **10yy** to copy all the lines between 50 to 60 and then press **p** to paste it
o) **G** to move to end of the file and then press **p** to paste it
p) press **G** to go to last line and then press 9dk to delete the last 10 lines of the file
q) **:wq** to save and quit
r) to open tmp use command **vi tmp**
s) keeping cursor at **S** press **~**
t) **:w** to save the file.