Exercise 4 (Shell Prog)

1.	**List all the files in current directory as follows:** **(i)List 1 file per line** **(ii)Sort by modification time** **(iii)sort by file size** **(iv)List subdirectories recursively** **(v)sort in reverse order**
	Create a file file1.txt with the following input January February March April May June July August September October November December
2.	Write a shell script to display the first four lines of the above file.
3	Write a script to display last three lines of the above file.
4.	Write a script to print lines starting from 4th line till the last using tail command.
5.	Write a script to print all the lines except the last five lines using head command.
6.	Write a script to display 3rd line to 8th line and save the output to another file named file2.txt.

	ID	TYPE	CATEGORY	COMPANY	QTY	PRICE	DATE
7.	B001	LENSES	CAMERA	CANON	20	20000	08/06/16
	B002	SPEAKERS	AUDIO	JBL	30	30000	10/21/17
	B003	PUZZLES	TOYS	FISHER	40	1000	06/09/12
	B004	FRAGRANCE	BEAUTY	NIVEA	50	500	22/05/10

8.	Write a script to create the above structure in a file. (Use Paste command)

9.	Write a script to
	    a) Extract fields ID and TYPE and save it in file file1.txt.
	    b) Extract fields from company to PRICE and save it in file file2.txt.
	    c) View the contents of file1.txt and file2.txt and display the contents of the file side by side.
	    d) Replace the space between the above output with *.
	    e) Display the Data in the ascending order based on Category.
	    f) Display the Data in the descending order based on type.
	    g) Display the Data in the ascending order based on date.
	    h) Write the above scripts output in sorted.txt
	    i) Display the Data of the file in the lower case
	    j) Replace the * with # and / with − (see example below)
	    k) Convert file1.txt to all uppercase characters.
	
	``` (example tr command $cat greekfile | tr "[a-z]" "[A-Z]")```
	```Or tr "[a-z]" "[A-Z]" < greekfile```

10.	Create a file "*file3.txt*" with following content ***file3.txt*** Line 1 Line 2 Line 2 Line 3 Line 3 Line 3 Show only the unique lines of the file "file3.txt"
11	*Create a file named 'demo.txt' with the following content.* THIS LINE IS THE 1ST UPPER CASE LINE IN THIS FILE. this line is the 1st lower case line in this file. This Line Has All Its First Character Of The Word With Upper Case. Two lines above this line is empty. And this is the last line. Display all lines containing word 'This'.
12	*Create another file 'demo1.txt' with following content.* *This is my 5th lab of shell.* *I like shell scripting.* *THIS is an interesting subject.* Display all lines containing word 'this' from both the files. (ignore case)
13.	Display all the lines which contains the word 'is' from 'demo.txt'. Also count the line number when word matches.
14.	Display all the lines which starts with the word 'this' and ends with 'file'.
15.	Display all the lines which do not contain the word 'case'.
16.	create file with following contents emeka:x:1438:100::/home/emeka:/bin/ksh shelley:x:1439:100::/home/shelley:/bin/ksh dmeyer:x:1440:100::/home/dmeyer:/bin/ksh kurtarn:x:1441:100::/home/kurtarn:/bin/ksh abdul:x:1442:100::/home/abdul:/bin/ksh
17	Que based on Q16 file (a) Display 1st and third column taking ':' as delimeter
18.	Create a script or plan (any command) which will run at 11.38 am through 'at' command and verify it by creating any file for output it at 11.38am.
19.	analyse all following options of grep command

Option	Function
–v	Shows all the lines that do not match the searched string
–c	Displays only the count of matching lines

	-n	Shows the matching line and its number
	-i	Match both (upper and lower) case
	-l	Shows just the name of the file with the string
20	create a file which has three columns (Rollno,name and surname)having atleast 8 lines 1121 AMIT Sharma 1123 Ajay Mishra 1213 Chirag Parikh 2112 Harsh Pandya .... Now test sort command with following options	
	-r	Reverses sorting
	-n	Sorts numerically
	-f	Case insensitive sorting
| **21.** | ```
home@VirtualBox:~$ cat sample
Bat
Goat
Apple
Dog
First
Eat
Hide
```<br><br>create above file and highlight only the lines that do not contain the character 'a', but the result should be in reverse order. | |
| **22** | Grep command (Run all following options with grep command)

```grep [options] pattern [files]```

```grep "pattern" filename   (this command will display lines having pattern "pattern" in filename)```

```Options Description```
```-c : This prints only a count of the lines that match a pattern```
```-h : Display the matched lines, but do not display the filenames.```
```-i : Ignores, case for matching```
```-l : Displays list of a filenames only.```
```-n : Display the matched lines and their line numbers.```
```-v : This prints out all the lines that do not matches the pattern```
```-e exp : Specifies expression with this option. Can use multiple times.```
```-f file : Takes patterns from file, one per line.```
```-E : Treats pattern as an extended regular expression (ERE)```
```-w : Match whole word``` | |

-o : Print only the matched parts of a matching line,
 with each such part on a separate output line.

23	**$cat geekfile.txt** unix is great os. unix is opensource. unix is free os. learn operating system. Unix linux which one you choose. uNix is easy to learn.unix is a multiuser os.Learn unix .unix is a powerful.
24	**Run following commands with Q23** **$grep -i "UNix" geekfile.txt** **$grep -c "unix" geekfile.txt** **$grep -l "unix" *** **$ grep -w "unix" geekfile.txt**
25	**Run following commands with Q23** **$ grep -o "unix" geekfile.txt** **$ grep -n "unix" geekfile.txt** **$ grep -v "unix" geekfile.txt** **$ grep "^unix" geekfile.txt** **$ grep "os$" geekfile.txt** **$cat pattern.txt** Agarwal Aggarwal Agrawal $grep –f pattern.txt geekfile.txt