Lab Assignment -4

Task 1

a) bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ grep battery battery.txt

After I plugged it in to my USB hub on my computer to charge the battery the charging cord design is very clever !

By the way, Kindle battery lasts forever indeed !

b) bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ grep -e 'good' -e ' bad' -e 'worst' battery.txt

Battery life is very good, even with the wireless on constantly .

, Battery life seems a bit longer but the K1 was good too .

c)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ grep 'amazing..$' battery.txt

And the long battery life is amazing !

The battery life seems amazing .

d)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ grep [0-9] battery.txt hotel.txt

battery.txt: After you have paged tru a 500, page book one, page, at, a, time to get from Chapter 2 to Chapter 15, see how excited you are about a low battery and all the time it took to get there !

hotel.txt: Yes I do stay here a lot and as such, guess that I get extra special treatment but it is in a great location with the tube within a 2 min walk surrounded by places to eat and drink and far enough out of central London to be quiet but you can still be in the west end in 15 minutes .

e)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ grep -o '[^a-zA-Z0-9 \t]' battery.txt hotel.txt| sort | uniq -c

4 battery.txt:>

123 battery.txt:,

6 battery.txt:!

82 battery.txt:.

34 battery.txt:'

2 battery.txt:$

2 battery.txt:%

431 hotel.txt:,

1 hotel.txt::

29 hotel.txt:!

1 hotel.txt:?

377 hotel.txt:.

70 hotel.txt:'

f)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -o 'good|bad|worst' battery.txt| uniq -c

2 good

g)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ cat battery.txt | tr 'A-Z' 'a-z' | sed 's/[^a-z]//g' | tr -s '[[:space:]]' '\n' | sort | uniq -c | sort -nr | head -1

148 the

g)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -o 'good|bad|worst' battery.txt| uniq | head -n1

good

j)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -o 'service|services' hotel.txt| sort | uniq -c

17 service

1 services

k)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -o 'good|bad|worst|better' hotel.txt| sort | uniq | tail -n1

good

bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -o 'good|bad|worst|better' hotel.txt| sort | uniq -c

1 bad

17 better

70 good

Task 2

a) bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ egrep -oh 'good|bad|worst|better' hotel.txt battery.txt| sort | uniq -c

1 bad

19 better

72 good

b)bhavay@bhavay-ROG-GU501GM:~/Desktop/HW/sm lab 4$ ls -lSr

total 264

-rw-r--r-- 1 bhavay bhavay   3952 Sep 28 10:39 answers.txt

-rw-r--r-- 1 bhavay bhavay   9665 Sep 26 09:53 battery.txt

-rw-r--r-- 1 bhavay bhavay 37607 Sep 26 09:54 hotel.txt

-rw-r--r-- 1 bhavay bhavay 212422 Sep 12 04:53 'System Management lab 4.pdf'

Task 3

Grep command is very useful in finding multiple patterns in files and makes things easier by highlighting them out and even give the option to display only the pattern. Other functionality of grep include the ability to count selected words and searching multiple files at once. Also classes of characters are predefined while makes searching easier, for eg. [:alnum:] represents alphabets and numbers both , and there are many such classes.

Some disadvantages of grep include the fact that it is only able to search for strings in files whereas some commands like find is able to retrieve anything in your computer matching the search criteria and on top of that you don't even need to specify the file name completely which might be helpful in a lot of situations. Also grep does not provide any option to sort files and also does not count the number of occurrences of a particular pattern.

Pipe command is used to redirect output of a command as an input of another. This can help us in string output of some command into a text file or continue working on it, for eg. Ls – l | wc will help us count the number of words displayed after ls command. Like this it is possible to use various other functions like sort, uniq, cat and many others.

Some disadvantages of pipe are the fact that it is unidirectional which means that we can only redirect output to a single command hence does not allow simultaneous redirection of output to multiple commands. This can be solved by shells like zsh and bash. Also we can store data for further use with it and the only possible option will be to store in a text file and use it over and over again.