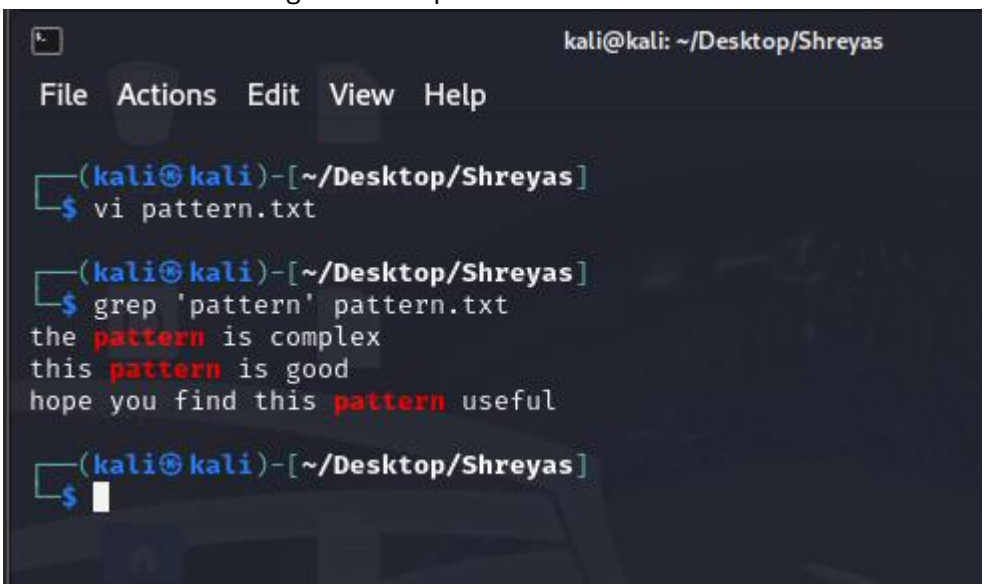
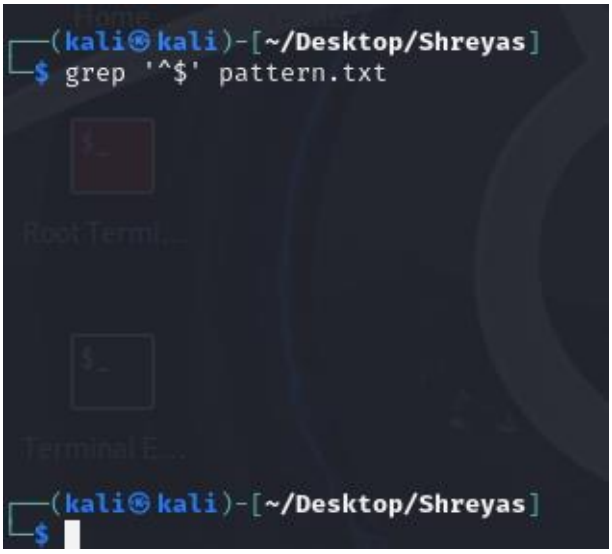
More on Grep

1. Print all the lines having the word "pattern".

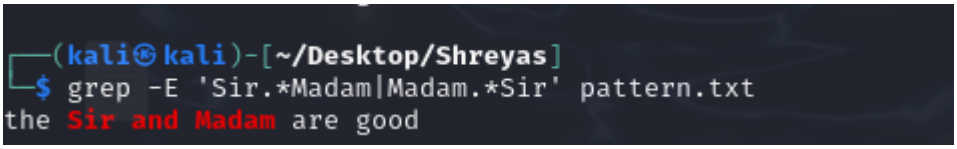


2. Pick out the blank lines in the file



3. Count total number of empty lines in the file.

4. Print the line which have both “Sir and Madam”.



5. pick out lines with “pattern1” “pattern2” or “pattern3”. (use the alternator |)

6. pick out lines that have at least two p's followed by any number of letters followed by 'ore'. The p's do not have to be next to each other.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -E 'p.*p.*[a-zA-Z]*ore' pattern.txt
Two peas in a pod. There p's before teh core.
```

7. pick out all the lines with v, z or I in them

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep [vziI] pattern.txt
this is a test file
Two peas in a pod. There p's before teh core.
Sir you have to surrender
the Sir and Madam are good
the pattern is complex
this pattern is good
hope you find this pattern useful

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$
```

8. pick out all the lines that do not start with an uppercase letter.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep "^[^A-Z]" pattern.txt
this is a test file
how are you
how are you Madam
the Sir and Madam are good
the pattern is complex
this pattern is good
hope you find this pattern useful

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$
```

9. pick out all the lines that end with a dash –

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ vi pattern.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -- "-$" pattern.txt
Two peas in a pod. There p's before teh corek.-
how are you Madam-
the pattern is complex-
```

10. pick out all the words that end with ore

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -o '\b\w*ore\b' pattern.txt
before
```

11. pick out all the words that start with f or F

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -o "\b[Ff]\w*" pattern.txt
file
find

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$
```

12. pick out lines that uses first letter alliteration - starting two words with the same letter.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ ~grep -E '\b([a-zA-Z])\w*\b.*\b\1\w*\b' pattern.txt
Command '~grep' not found, but there are 16 similar ones.

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -E '\b([a-zA-Z])\w*\b.*\b\1\w*\b' pattern.txt
this is a test file
Here are some patterns: pattern1,pattern2,pattern3.
Two peas in a pod. There p's before teh corek.-
the Sir and Madam are good
This This is a good day
Madam Madam
```

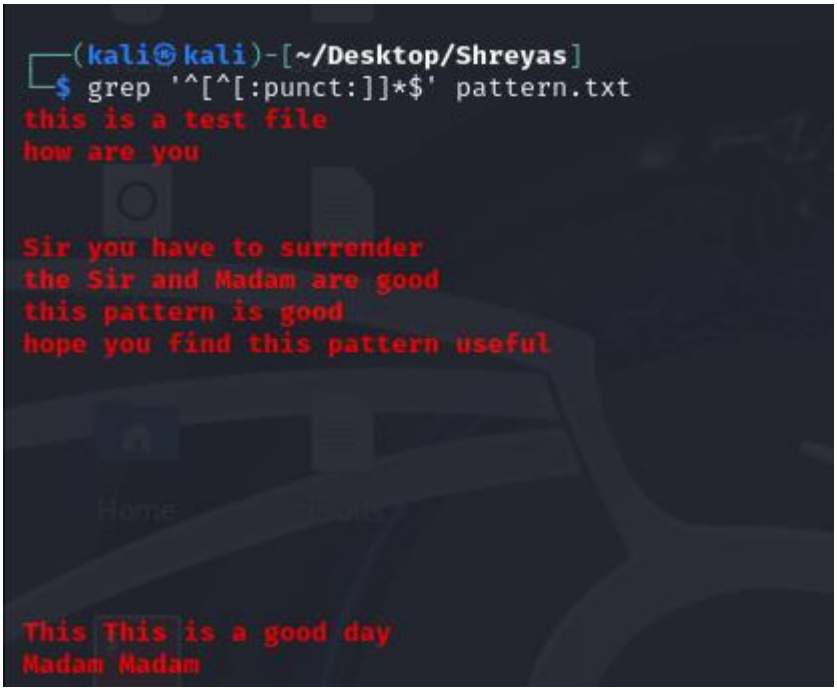
13. determine how many times contains the word "pattern".

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ grep -o -i 'pattern' pattern.txt | wc -l
7

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$
```

14. to pick out lines with at least 40 characters:

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ egrep '.{40,}' pattern.txt
Here are some patterns: pattern1,pattern2,pattern3.
Two peas in a pod. There p's before teh corek.-
Creating a comprehensive and thorough understanding of complex topics often requires dilige
nt research, careful analysis, and extensive study. By engaging in deep exploration, we enh
ance our knowledge, improve our skills, and ultimately achieve greater success in varios en
deavors and challenges.

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$
```

15. to pick out lines with no punctuation



16. to pick out lines with an uppercase letter other than the first character. (The first character on the line does not count.)

17. To pick out lines without rav

Quotes:

18. Write a shell script to generate a report with the following details.

- Number of regular files
- Number of links
- Number of directories
- Print the date when it was processed!


```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ ./script.sh
Report generated on Sun Sep  8 10:58:16 AM EDT 2024
Number of regular files : 5
Number of lonks:0
Number of directions: 1
```

Redirection

18. List the contents of your current directory, including the ownership and permissions, and store the output to a file called contents.txt within your home directory.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ ls -l > ~/Desktop/Shreyas/contents.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat contents.txt
total 20
-rw-rw-r-- 1 kali kali   0 Sep  8 11:04 contents.txt
-rw-rw-r-- 1 kali kali 626 Sep  8 10:48 pattern.txt
-rwxrwxr-x 1 kali kali 137 Sep  7 09:04 prob1.sh
-rwxrwxr-x 1 kali kali 189 Sep  7 09:12 prob2.sh
-rwxrwxr-x 1 kali kali 272 Sep  8 10:57 script.sh
-rw-rw-r-- 1 kali kali  51 Sep  7 08:57 test.txt
```

19. Sort the contents of the contents.txt file from your current directory and append it to the end of a new file named contents-sorted.txt.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ sort ~/Desktop/Shreyas/contents.txt >> ~/Desktop/Shreyas/contents.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat contents.txt
total 20
-rw-rw-r-- 1 kali kali   0 Sep  8 11:04 contents.txt
-rw-rw-r-- 1 kali kali 626 Sep  8 10:48 pattern.txt
-rwxrwxr-x 1 kali kali 137 Sep  7 09:04 prob1.sh
-rwxrwxr-x 1 kali kali 189 Sep  7 09:12 prob2.sh
-rwxrwxr-x 1 kali kali 272 Sep  8 10:57 script.sh
-rw-rw-r-- 1 kali kali  51 Sep  7 08:57 test.txt
-rw-rw-r-- 1 kali kali   0 Sep  8 11:04 contents.txt
-rw-rw-r-- 1 kali kali  51 Sep  7 08:57 test.txt
-rw-rw-r-- 1 kali kali 626 Sep  8 10:48 pattern.txt
-rwxrwxr-x 1 kali kali 137 Sep  7 09:04 prob1.sh
-rwxrwxr-x 1 kali kali 189 Sep  7 09:12 prob2.sh
-rwxrwxr-x 1 kali kali 272 Sep  8 10:57 script.sh
total 20
```

20. Display the last 10 lines of the /etc/passwd file and redirect it to a new file in the your user's Documents directory.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ tail -n 10 /etc/passwd > ~/Desktop/Shreyas/password.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat password.txt
redis:x:128:131::/var/lib/redis:/usr/sbin/nologin
postgres:x:129:132:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash
mosquitto:x:130:133::/var/lib/mosquitto:/usr/sbin/nologin
inetsim:x:131:134::/var/lib/inetsim:/usr/sbin/nologin
_gvm:x:132:135::/var/lib/openvas:/usr/sbin/nologin
kali:x:1000:1000:,,,:/home/kali:/bin/bash
Debian-exim:x:133:138::/var/spool/exim4:/usr/sbin/nologin
elitw:x:1001:1001:,,,:/home/elitw:/bin/bash
momos:x:1002:1002:Rocket,69,69696969,669966996699:/home/momos:/bin/bash
shreyas:x:1003:1003:,,,:/home/shreyas:/bin/bash
```

21. Count the number of words within the contents.txt file and append the output to the end of a file field2.txt in your home directory. You will need to use both input and output redirection.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat contents.txt
total 20
-rw-rw-r-- 1 kali kali   0 Sep  8 11:04 contents.txt
-rw-rw-r-- 1 kali kali 626 Sep  8 10:48 pattern.txt
-rwxrwxr-x 1 kali kali 137 Sep  7 09:04 prob1.sh
-rwxrwxr-x 1 kali kali 189 Sep  7 09:12 prob2.sh
-rwxrwxr-x 1 kali kali 272 Sep  8 10:57 script.sh
-rw-rw-r-- 1 kali kali  51 Sep  7 08:57 test.txt
-rw-rw-r-- 1 kali kali   0 Sep  8 11:04 contents.txt
-rw-rw-r-- 1 kali kali  51 Sep  7 08:57 test.txt
-rw-rw-r-- 1 kali kali 626 Sep  8 10:48 pattern.txt
-rwxrwxr-x 1 kali kali 137 Sep  7 09:04 prob1.sh
-rwxrwxr-x 1 kali kali 189 Sep  7 09:12 prob2.sh
-rwxrwxr-x 1 kali kali 272 Sep  8 10:57 script.sh
total 20

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ wc -w < ~/Desktop/Shreyas/contents.txt >> ~/field.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat field.txt
cat: field.txt: No such file or directory

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ wc -w < ~/Desktop/Shreyas/contents.txt >> ~/Desktop/Shreyas/field.txt

┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ cat field.txt
112
```

22. Display the first 5 lines of the /etc/passwd file and sort the output reverse alphabetically.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ head -n 5 /etc/passwd | sort -r
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
root:x:0:0:root:/root:/usr/bin/zsh
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
```

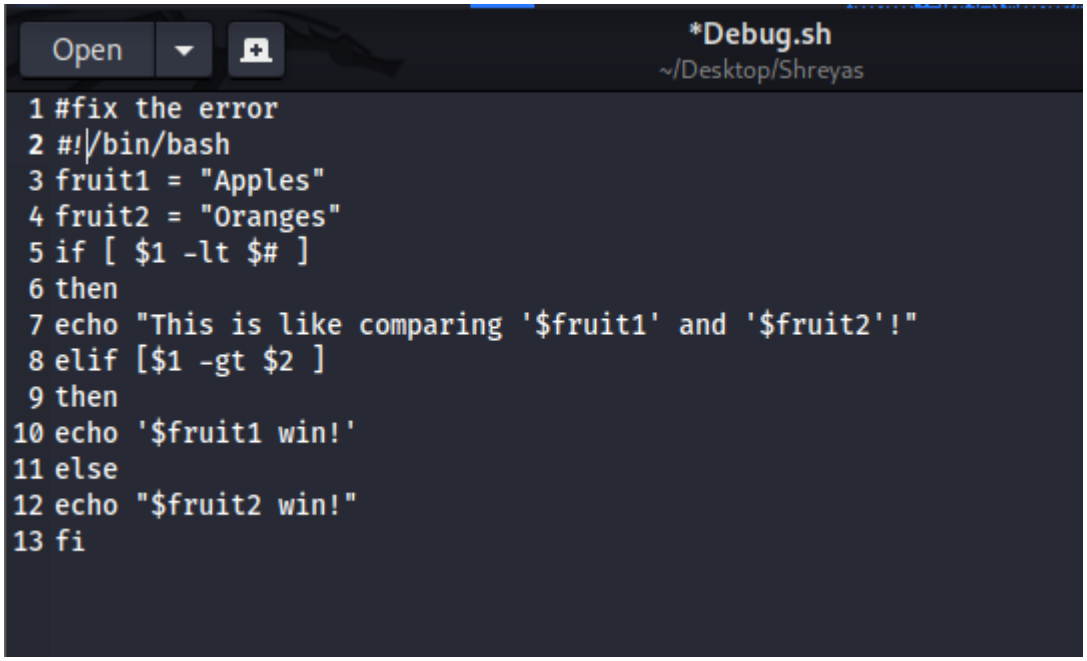
23. Using the previously created contents.txt file, count the number of characters of the last 9 lines.

```
┌──(kali㉿kali)-[~/Desktop/Shreyas]
└─$ tail -n 9 ~/Desktop/Shreyas/contents.txt | wc -m
410
```

Debug

24. Debug the script 1_debug.sh

Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do.


Open
*Debug.sh
~/Desktop/Shreyas
1 #fix the error
2 #!/bin/bash
3 fruit1 = "Apples"
4 fruit2 = "Oranges"
5 if [$1 -lt $#]
6 then
7 echo "This is like comparing '$fruit1' and '$fruit2'!"
8 elif [$1 -gt $2]
9 then
10 echo '$fruit1 win!'
11 else
12 echo "$fruit2 win!"
13 fi