

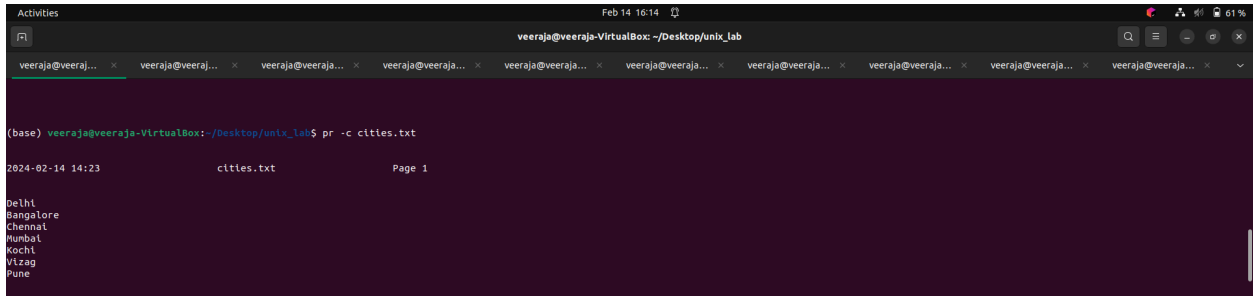
# Assignment 1-Week 3

Name: Veeraja V

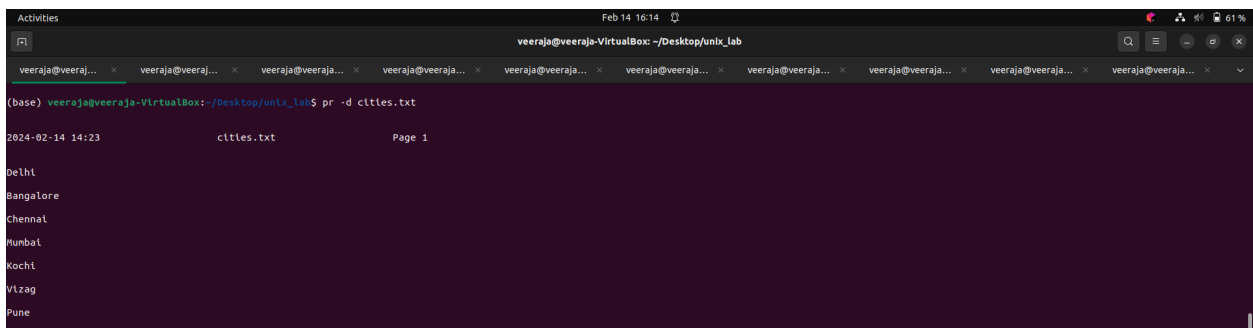
Roll No : 422180

Sec: A

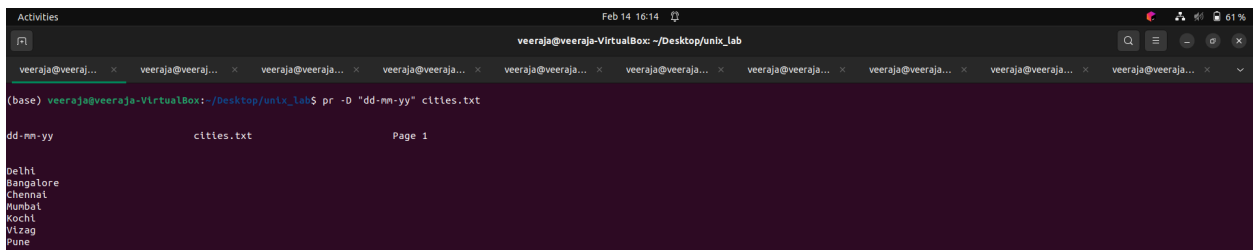
Pr command:



```
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -c cities.txt
2024-02-14 14:23          cities.txt          Page 1
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```



```
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -d cities.txt
2024-02-14 14:23          cities.txt          Page 1
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```



```
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -D "dd-mm-yy" cities.txt
dd-mm-yy          cities.txt          Page 1
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```

```
Activities Feb 14 16:15 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -f cities.txt

2024-02-14 14:23 cities.txt Page 1

Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -h "Cities of India" cities.txt

2024-02-14 14:23 Cities of India Page 1

Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -f -o 5 cities.txt

2024-02-14 14:23 cities.txt Page 1

Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -t cities.txt
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```

```
Activities Feb 14 16:15 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -n cities.txt

2024-02-14 14:23 cities.txt Page 1

1 Delhi
2 Bangalore
3 Chennai
4 Mumbai
5 Kochi
6 Vizag
7 Pune
```

```
Activities Feb 14 16:13 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr cities.txt

2024-02-14 14:23 cities.txt Page 1

Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```

```
Activities Feb 14 16:14 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ pr -a cities.txt

2024-02-14 14:23 cities.txt Page 1

Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
```

# Head and tail command

```
Activities Feb 14 16:32
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head cities.txt
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head --bytes=10 cities.txt
Delhi
Bang
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head --bytes=50 cities.txt
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head -n 3 cities.txt
Delhi
Bangalore
Chennai
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head -v cities.txt
==> cities.txt <==
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh

Activities Feb 14 16:32
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab

Chandigarh
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head -q cities.txt
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ head -z -n 3 cities.txt
Delhi
Bangalore
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
Lucknow
Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ 
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ 
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ 
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ 
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail cities.txt
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
Lucknow
Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail --bytes=10 cities.txt
ndhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail --bytes=50 cities.txt
Pune
Kolkata
Jaipur
Chandigarh
Lucknow
Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail -n 3 cities.txt
Chandigarh
Lucknow
Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail -v cities.txt
==> cities.txt <==
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
Lucknow
Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ tail -q cities.txt
Chennai
Mumbai
Kochi
Vizag
Pune
Kolkata
Jaipur
Chandigarh
```

## Cut and paste command:

```
Activities Feb 14 16:34 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ cut -b 5 cities.txt
t
a
a
t
9
a
u
d
n
h
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ cut -b 3-5 cities.txt
lht
nga
enn
mba
cht
zag
ne
lka
lpu
and
ckn
ndh
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ paste numbers.txt cities.txt
1 Delhi
2 Bangalore
3 Chennai
4 Mumbai
5 Kochi
6 Vizag
7 Pune
8 Kolkata
9 Jaipur
10 Chandigarh
    Lucknow
    Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ paste -d "@" numbers.txt cities.txt
1@Delhi
2@Bangalore
3@Chennai
4@Mumbai
5@Kochi
6@Vizag
7@Pune
8@Kolkata
9@Jaipur
10@Chandigarh
@Lucknow
@Gandhinagar
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ paste -s numbers.txt cities.txt
1 2 3 4 5 6 7 8 9 10
Delhi Bangalore Chennai Mumbai Kochi Vizag Pune Kolkata Jaipur Chandigarh Lucknow Gandhinagar
```

## Sort command:

```
Activities Feb 14 16:37
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab
veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x
so(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort cities.txt
Bangalore
Chandigarh
Chennai
Delhi
Gandhinagar
Jaipur
Kochi
Kolkata
Lucknow
Mumbai
Pune
Vizag
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -d cities.txt
Bangalore
Chandigarh
Chennai
Delhi
Gandhinagar
Jaipur
Kochi
Kolkata
Lucknow
Mumbai
Pune
Vizag
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -g cities.txt
Bangalore
Chandigarh
Chennai
Delhi
Gandhinagar
Jaipur
Kochi
Kolkata
Lucknow
Mumbai
Pune
Vizag
```

```
Activities Feb 14 16:37
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab
veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ cat > months.txt
Jan
Feb
Dec
Mar
Apr
May
Jul
Jun
Sept
Aug
Oct
Nov
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -d cities.txt
Bangalore
Chandigarh
Chennai
Delhi
Gandhinagar
Jaipur
Kochi
Kolkata
Lucknow
Mumbai
Pune
Vizag
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -d months.txt
Apr
Aug
Dec
Feb
Jan
Jul
Jun
Mar
May
Nov
Oct
Sept
```

```
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -g months.txt
Apr
Aug
Dec
Feb
Jan
Jul
Jun
Mar
May
Nov
Oct
Sept
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -M months.txt
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Oct
Nov
Dec
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ sort -M -r months.txt
Dec
Nov
Oct
Sept
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$
```

# Uniq command:

```
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab
Hello World
Hello
Hi
World
Hello World
Hi
Hi
World
Hi
hello
WORLD
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ cat foruniq.txt
Hello World
Hello
Hi
World
Hello World
Hi
Hi
World
Hi
hello
WORLD
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq
hello
Hello
Hello World
Hi
Hi
World
WORLD
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -c
  1 hello
  1 Hello
  2 Hello World
  1 Hi
  3 Hi
  2 World
  1 WORLD
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -d
Hello World
Hi
World
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -D
Hello World
Hello World
Hi
Hi
World
World
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -l
hello
Hello World
Hi
World
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -s 3
hello
Hello World
Hi
World
WORLD
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$ sort foruniq.txt | uniq -w 1
hello
Hello
Hi
World
(base) veeraja@veeraja-VirtualBox: ~/Desktop/uniq_lab$
```

## Tr command:

The screenshot shows a Kali Linux desktop environment with a terminal window titled "veeraja@veeraja-VirtualBox: ~/Desktop/unix\_lab". The terminal displays several shell commands and their outputs:  
  
1. Initial command: `cat cities.txt | tr [a-z] [A-Z] | head`  
Output: A list of city names in uppercase: DELHI, BANGALORE, CHENNAI, MUMBAI, KOCHI, VIZAG, PUNE, KOLKATA, JAIPUR, CHANDIGARH.  
  
2. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -c [A-Z] | head -n 5`  
Error message: `tr: missing operand after '[A-Z]'` followed by instructions: "Two strings must be given when translating. Try 'tr --help' for more information."  
  
3. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -c [A-Z] [a-z] | head -n 5`  
Output: A long sequence of lowercase letters representing the first five characters of each word concatenated: d[...].  
  
4. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -d [A-Z] [a-z] | head -n 5`  
Error message: `tr: extra operand '[a-z]'` followed by instructions: "Only one string may be given when deleting without squeezing repeats. Try 'tr --help' for more information."  
  
5. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -d [A-Z] | head -n 5`  
Output: City names with spaces removed and in lowercase: delhi, bangalore, chennai, mumbai, kochi.  
  
6. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -t [A-Z] [a-c] | head -n 5`  
Output: City names where vowels are mapped to specific consonants: jelh l, bangalor e, chen n ai, mum ba t, koc h i.  
  
7. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -s [A-Z] [a-c] | head -n 5`  
Output: City names with single spaces between words: jelh l, bangalore, chennai, mumbai, kochi.  
  
8. Command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$ cat cities.txt | tr -s [A-Z] [d-k] | head -n 5`  
Output: City names with single spaces and different vowel mapping: gah l, bangalore, rhennat, jumbat, jochl.  
  
9. Final command: `(base) veeraja@veeraja-VirtualBox:~/Desktop/unix\_lab\$`  
The prompt character at the end indicates the session is still active.

## Grep command:

```

Activities Feb 14 16:41 veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab
veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x veeraja@veeraj... x
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ cat > day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ cat day-temp.txt | grep 3
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -A2 3 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -B2 4 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -C2 day day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -E *7 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -F *7 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -F day day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -G *7 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -w day day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 day-temp.txt
Mon 37
Tue 34
Wed 26
Thurs 22
Fri 42
Saturday 18
Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 -n day-temp.txt
1:Mon 37
2:Tue 34
3:Wed 26
4:Thurs 22
5:Fri 42
6:Saturday 18
7:Sunday 28
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 -H day-temp.txt
day-temp.txt:Mon 37
day-temp.txt:Tue 34
day-temp.txt:Saturday 18
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 -h Temperatures day-temp.txt
grep: Temperatures: No such file or directory
Mon 37
Tue 34
Wednesday 18
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 -label=Temperatures day-temp.txt
grep: 2: No such file or directory
day-temp.txt
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 -label=Temperatures day-temp.txt
grep: 2: No such file or directory
day-temp.txt
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 --label=Temperatures day-temp.txt
grep: 2: No such file or directory
day-temp.txt
(base) veeraja@veeraja-VirtualBox:~/Desktop/unix_lab$ grep -v 2 --label=Temperatures day-temp.txt
Mon 37
Tue 34
Wednesday 18

```

# Bash script:

```
veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab
file="forprep.txt"
echo "Original File:"
cat "$file"
echo ""
echo "Lines containing line:"
grep "line" "$file"
echo ""
echo "First 3 lines of the file:"
head -n 3 "$file"
echo ""
echo "Last 3 lines of the file:"
tail -n 3 "$file"
echo ""
echo "Second field of each line (comma-separated):"
cut -d ',' -f 2 "$file"
echo ""
echo "Lines of the file pasted side by side:"
paste -s "$file"
echo ""
echo "Sorted lines of the file:"
sort "$file"
echo ""
echo "Unique lines of the file:"
uniq "$file"
echo ""
echo "File with all uppercase characters converted to lowercase:"
tr '[:upper:]' '[:lower:]' < "$file"
echo ""
```

```
(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$ ./gprepscript.sh
Original File:
This is a sample text file.
It contains various lines of text.
Line 1: 1234$, apple, banana
Line 2: 6789$, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...

Lines containing line:
It contains various lines of text.
Line 4: This is a longer line with more words.

First 3 lines of the file:
This is a sample text file.
It contains various lines of text.
Line 1: 1234$, apple, banana

Last 3 lines of the file:
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...

Second field of each line (comma-separated):
This is a sample text file.
It contains various lines of text.
apple
orange
cherry
Line 4: This is a longer line with more words.
...

Lines of the file pasted side by side:
This is a sample text file.    It contains various lines of text.    Line 1: 1234$, apple, banana    Line 2: 6789$, orange, grapes    Line 3: !@#$, cherry, mango    Line 4: This is a longer line with more wor
ds.    ...

Sorted lines of the file:
...
It contains various lines of text.
Line 1: 1234$, apple, banana
Line 2: 6789$, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
```

```
This is a sample text file.

Unique lines of the file:
This is a sample text file.
It contains various lines of text.
Line 1: 1234$, apple, banana
Line 2: 6789$, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...

File with all uppercase characters converted to lowercase:
this is a sample text file.
it contains various lines of text.
line 1: 1234$, apple, banana
line 2: 6789$, orange, grapes
line 3: !@#$, cherry, mango
line 4: this is a longer line with more words.
...

(base) veeraja@veeraja-VirtualBox: ~/Desktop/unix_lab$
```