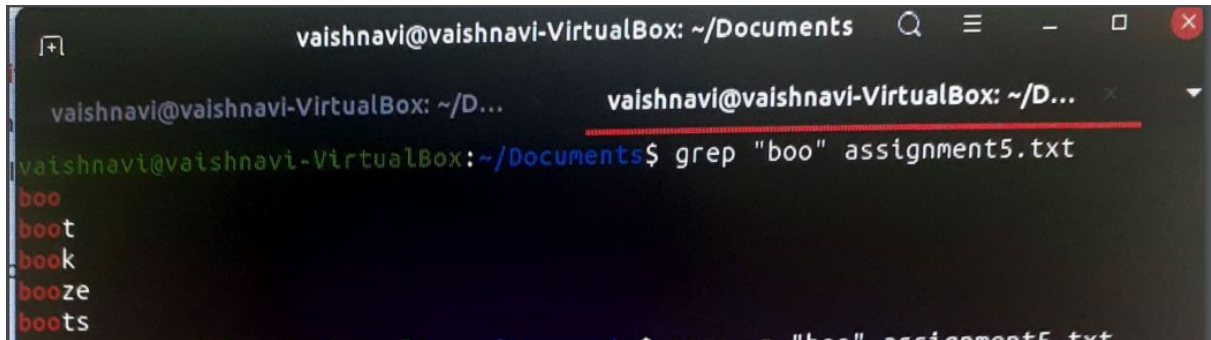


# GREP

Grep the strings in the above file containing the pattern "boo",

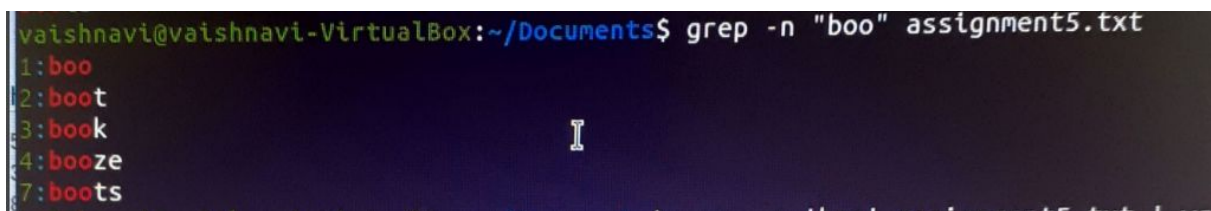
Using the command: `grep "boo" assignment5.txt`



```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/D...
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep "boo" assignment5.txt
boo
boot
book
booze
boots
```

Show the line numbers in which the search pattern is found.

Using the command: `grep -n "boo" assignment5.txt`



```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -n "boo" assignment5.txt
1:boo
2:boot
3:book
4:booze
7:boots
```

Count the number of strings that contain the search pattern

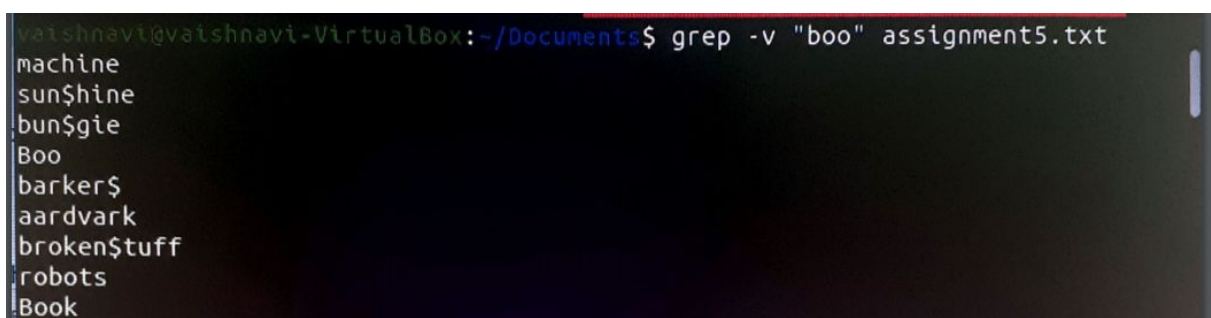
Using the command: `grep -o 'boo' assignment5.txt | wc -l`



```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -o 'boo' assignment5.txt | wc -l
5
```

Show the strings in the file with their line numbers which do not match the search pattern.

Using the command: `grep -v "boo" assignment5.txt`



```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -v "boo" assignment5.txt
machine
sun$shine
bun$gie
Boo
barker$
aardvark
broken$stuff
robots
Book
```

Ignore case sensitivity, and repeat the above operations.

Using the commands:

```
grep -i "boo" assignment5.txt
```

```
grep -i -n "boo" assignment5.txt
```

```
grep -o -i 'boo' assignment5.txt | wc -l
```

```
grep -v -i 'boo' assignment5.txt
```

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i "boo" assignment5.txt
boo
boot
book
booze
boots
Boo
Book
```

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i -n "boo" assignment5.txt
1:boo
2:boot
3:book
4:booze
7:boots
9:Boo
14:Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -o -i 'boo' assignment5.txt |
wc -l
7
```

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -v -i "boo" assignment5.txt
machine
sun$hine
bun$gie
barker$
aardvark
broken$stuff
robots
```

Find all the strings that start with B.

Using the command: `grep "^B" assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep "^B" assignment5.txt
Boo
Book
```

Find all the strings end with e.

Using the command: `grep "e$" assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep "e$" assignment5.txt
booze
machine
sun$hine
bun$gie
```

Find all the strings that start with B and end with E (consider case insensitive).

Using the command: `grep -i "^B.*E$" assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i "^B.*E$" assignment5.txt
booze
bun$gie
```

Find all the strings that contain \$ and starts with b

Using the command: `grep ^b.*'$' assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep ^b.*'$' assignment5.txt
bun$gie
barker$
broken$tuff
```

Find all the strings that contain \$ and ends with e.

Using the command: `grep '$'.*e$ assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep '$'.*e$ assignment5.txt
sun$hine
bun$gie
```

## SED

Print the lines that match the pattern "boo" and the next two lines after the matching line.

Using the command: `sed -n '/boo/{N;N;p}' assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -n '/boo/{N;N;p}' assignment5.txt
.txt
boo
boot
book
booze
machine
sun$hine
boots
bun$gie
Boo
```

Delete the lines that match the pattern “boo” and the next two lines after the matching line.

Using the command: `sed -i '/boo/,+2d' assignment5.txt`

`cat assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i '/boo/,+2d' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
Book
```

Search and replace pattern “boo” with “baa”

Using the command:

`sed -i 's/boo/baa/g' assignment5.txt`

`cat assignment5.txt`

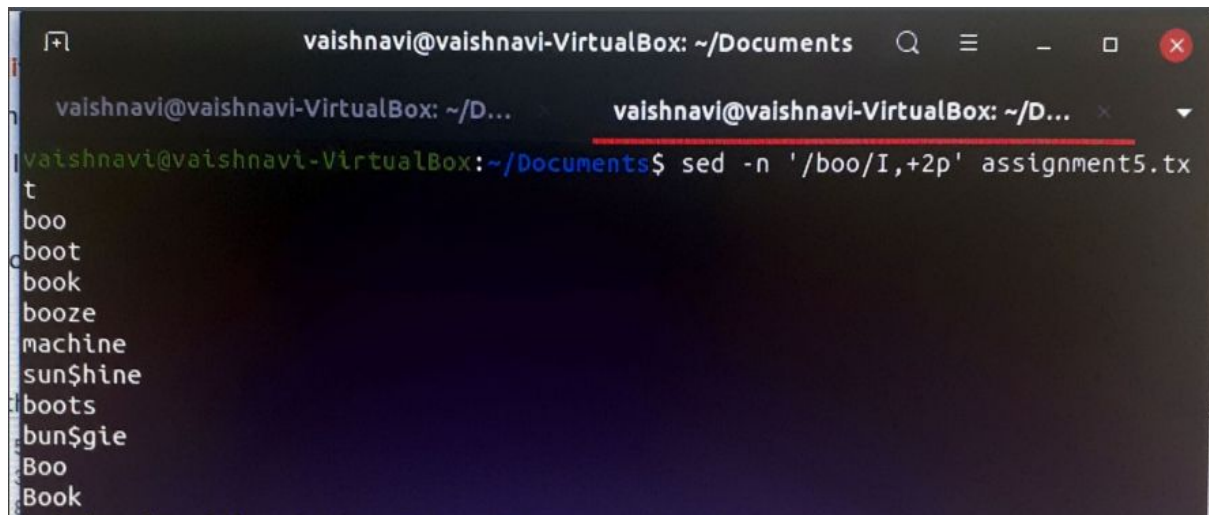
```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i 's/boo/baa/g' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
Book
```

Ignore the case sensitivity, and repeat the above three operations with case insensitive search.



Using the command: `sed -n "/boo/I,2p" assignment5.txt`

Note: here i changed file back to the starting one to know if the commands are doing there work.

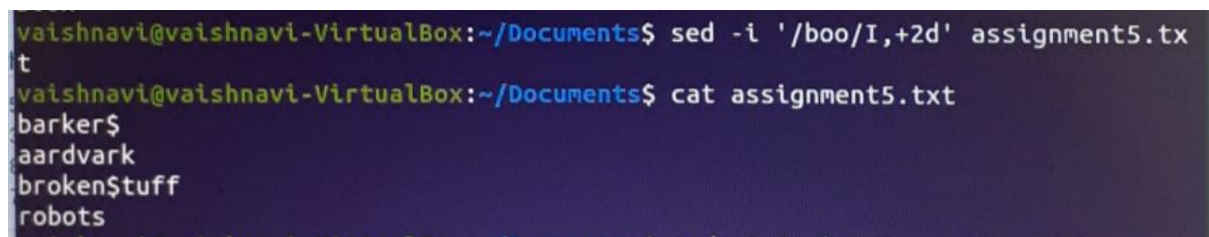
A terminal window titled 'vaishnavi@vaishnavi-VirtualBox: ~/Documents' with a search icon, menu icon, and window controls. It shows a command prompt where the command 'sed -n '/boo/I,+2p' assignment5.txt' has been entered. The output of the command is displayed as a list of words: 't', 'boo', 'boot', 'book', 'booze', 'machine', 'sun\$hine', 'boots', 'bun\$gie', 'Boo', and 'Book'.

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/D...
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -n '/boo/I,+2p' assignment5.tx
t
boo
boot
book
booze
machine
sun$hine
boots
bun$gie
Boo
Book
```

Using the command:

`sed -i "/boo/I,+2d" assignment5.txt`

`cat assignment5.txt`

A terminal window titled 'vaishnavi@vaishnavi-VirtualBox: ~/Documents' showing two commands. First, 'sed -i '/boo/I,+2d' assignment5.txt' is entered. Then, 'cat assignment5.txt' is entered, and the output is displayed as a list of words: 'barker\$', 'aardvark', 'broken\$stuff', and 'robots'.

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i '/boo/I,+2d' assignment5.tx
t
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
```

Using the command:

`sed -i "s/boo/baa/gl" assignment5.txt`

`cat assignment5.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i 's/boo/baa/gI' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
```

## AWK

Print the name of the students, their marks in the three subjects, and the total. While printing, show with the header “Name Sub-1 Sub-2 Sub-3 Total”.

Using the command: `awk 'BEGIN{print "Name Sub-1 Sub-2 Sub-3 Total"}; {total= $2 + $3 + $4; print $0,total }' reportcard.txt`

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Sub-1 Sub-2 Sub-3 Total"}; {total= $2 + $3 + $4; print $0,total }' reportcard.txt
Name Sub-1 Sub-2 Sub-3 Total
Stud-A 25 27 50 102
Stud-B 75 35 37 147
Stud-C 75 78 80 233
Stud-D 99 88 76 263
```

If a student scores less than 50 in any 2 two subjects, he is marked as **Failed**. Find the list of failed students with the header “Name Status”

Using the command: `awk 'BEGIN{print "Name Status"}; {if(($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) print $1, "Failed"}' reportcard.txt`

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Status"}; {if(($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) print $1, "Failed"}' reportcard.txt
Name Status
Stud-A Failed
Stud-B Failed
```

Generate a grade report of the students with the following fields “Name Sub-1 Sub-2 Sub-3 Status Grade”. If a student scores less than 50 in any 2 two subjects, his/her status is marked as **Failed**, otherwise “**Passed**”. A failed student has a grade “F”. The grade of a passed student is assigned as follows, where the Average is the average mark of the three subjects:

Using the command:

```
awk 'BEGIN{print "Name Sub-1 Sub-2 Sub-3 Status Grade"};
{if(($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) S
tatus="failed"; else Status="passed";if(Status=="failed")
Grade="F"; else if(($2+$3+$4)/3 >= 85) Grade="A"; else if
(85>($2+$3+$4)/3 && ($2+$3+$4)/3 >=75) Grade="B"; else
Grade="C";print $0,Status,Grade}' reportcard.txt
```

```
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Sub-1 Sub-2 S
ub-3 Status Grade"}; {if(($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) S
tatus="failed"; else Status="passed";if(Status=="failed") Grade="F"; else if(($2
+$3+$4)/3 >= 85) Grade="A"; else if (85>($2+$3+$4)/3 && ($2+$3+$4)/3 >=75) Grade
="B"; else Grade="C";print $0,Status,Grade}' reportcard.txt
Name Sub-1 Sub-2 Sub-3 Status Grade
Stud-A 25 27 50 failed F
Stud-B 75 35 37 failed F
Stud-C 75 78 80 passed B
Stud-D 99 88 76 passed A
```

TERMINAL with all commands together :

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/D...
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep "boo" assignment5.txt
boo
boot
book
booze
boots
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -n "boo" assignment5.txt
1:boo
2:boot
3:book
4:booze
7:boots
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -o 'boo' assignment5.txt | wc
-l
5
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -v "boo" assignment5.txt
machine
sun$hine
bun$gie
Boo
barker$
aardvark
```



```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep -v "boo" assignment5.txt
machine
sun$hine
bun$gie
Boo
barker$
aardvark
broken$stuff
robots
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i "boo" assignment5.txt
boo
boot
book
booze
boots
Boo
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i -n "boo" assignment5.txt
1:boo
2:boot
3:book
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep -i "boo" assignment5.txt
boo
boot
book
booze
boots
Boo
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -i -n "boo" assignment5.txt
1:boo
2:boot
3:book
4:booze
7:boots
9:Boo
14:Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -o -i 'boo' assignment5.txt |
wc -l
7
vaishnavi@vaishnavi-VirtualBox:~/Documents$ grep -v -i "boo" assignment5.txt
machine
```



```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/D...
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ wc -l
7
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep -v -i "boo" assignment5.txt
machine
sun$shine
bun$gie
barker$
aardvark
broken$tuff
robots
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep "^B" assignment5.txt
Boo
Book
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep "e$" assignment5.txt
booze
machine
sun$shine
bun$gie
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep -i "^B.*E$" assignment5.txt
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox: ~/D...
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep "^B" assignment5.txt
Boo
Book
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep "e$" assignment5.txt
booze
machine
sun$shine
bun$gie
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep -i "^B.*E$" assignment5.txt
booze
bun$gie
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep ^b.*'\$' assignment5.txt
bun$gie
barker$
broken$tuff
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ grep '\$'.*e$ assignment5.txt
sun$shine
bun$gie
vaishnavi@vaishnavi-VirtualBox: ~/Documents$ sed -n '/boo/{N;N;p}' assignment5
.txt
boo
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -n '/boo/{N;N;p}' assignment5.txt
t
boo
boot
book
booze
machine
sun$shine
boots
bun$gie
Boo
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i '/boo/,+2d' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i 's/boo/baa/g' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
boot
book
booze
machine
sun$shine
boots
bun$gie
Boo
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i '/boo/,+2d' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i 's/boo/baa/g' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
Book
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -n '/boo/I,+2p' assignment5.txt
boo
boot
book
booze
machine
sun$shine
boots
bun$gie
Boo
Book
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i '/boo/I,+2d' assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
vaishnavi@vaishnavi-VirtualBox:~/Documents$ sed -i "s/boo/baa/gI" assignment5.txt
vaishnavi@vaishnavi-VirtualBox:~/Documents$ cat assignment5.txt
barker$
aardvark
broken$stuff
robots
```

```
vaishnavi@vaishnavi-VirtualBox: ~/Documents
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Sub-1 Sub-2 Sub-3 Total"}; {total= $2 + $3 + $4; print $0,total }' reportcard.txt
Name Sub-1 Sub-2 Sub-3 Total
Stud-A 25 27 50 102
Stud-B 75 35 37 147
Stud-C 75 78 80 233
Stud-D 99 88 76 263
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Status"}; {if (($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) print $1, "Failed"}' reportcard.txt
Name Status
Stud-A Failed
Stud-B Failed
vaishnavi@vaishnavi-VirtualBox:~/Documents$ awk 'BEGIN{print "Name Sub-1 Sub-2 Sub-3 Status Grade"}; {if (($4<50 && $2<50)||($3<50 && $4<50)||($2<50 && $3<50)) Status="failed"; else Status="passed";if(Status=="failed") Grade="F"; else if (($2+$3+$4)/3 >= 85) Grade="A"; else if (85>($2+$3+$4)/3 && ($2+$3+$4)/3 >=75) Grade="B"; else Grade="C";print $0,Status,Grade}' reportcard.txt
Name Sub-1 Sub-2 Sub-3 Status Grade
Stud-A 25 27 50 failed F
Stud-B 75 35 37 failed F
Stud-C 75 78 80 passed B
Stud-D 99 88 76 passed A
```