

UNIX LAB ASSIGNMENT NO.6

AWK, SED, GREP Commands

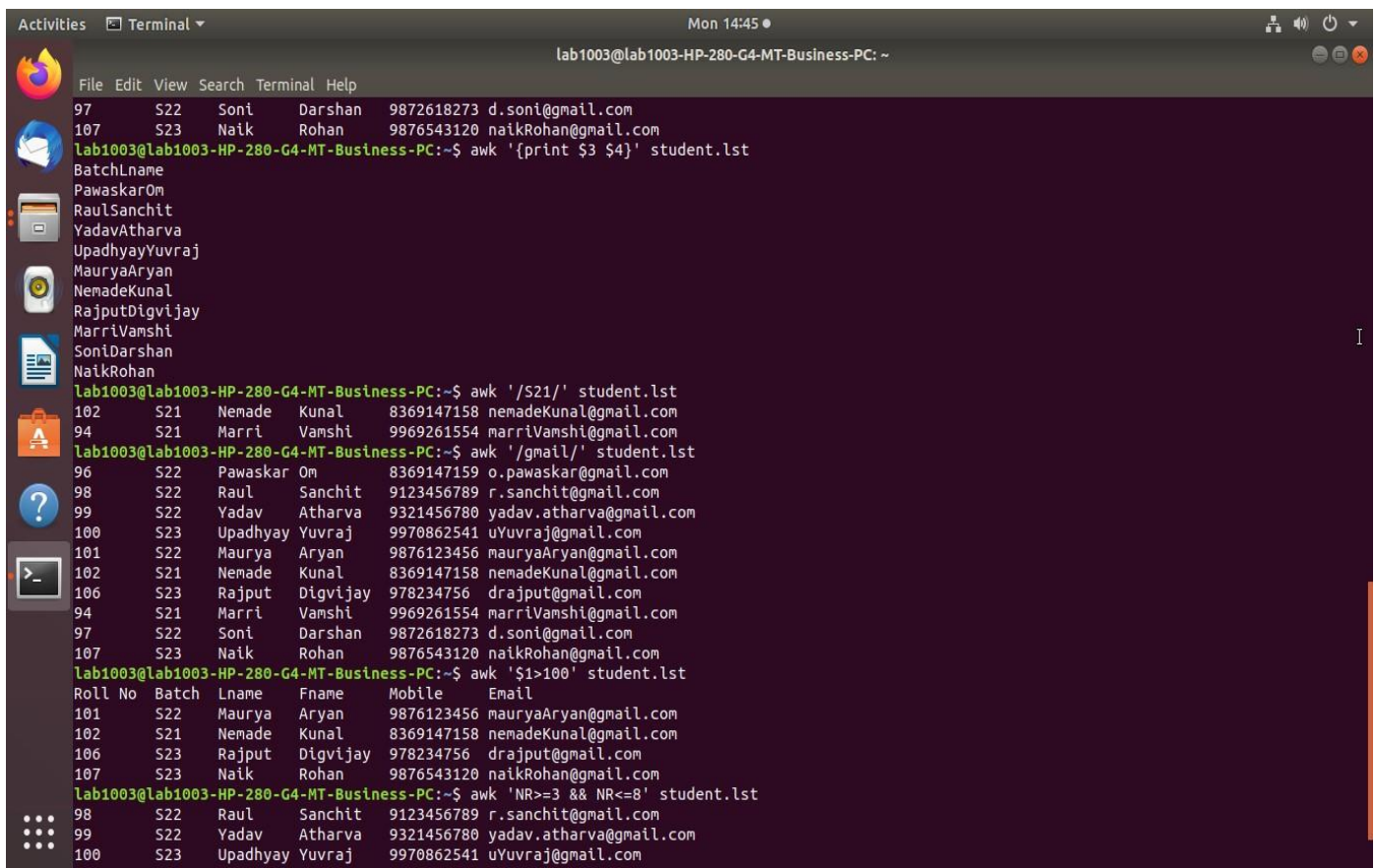
AWK COMMANDS :

AWK is a powerful programming language and command-line utility for pattern scanning and text processing.

Used for processing and analyzing text data, particularly when data is organized in columns.

It operates on a line-by-line basis, applying actions to lines that match specified patterns.

Often used for data extraction, reporting, and formatting.



```
Activities Terminal Mon 14:45 lab1003@lab1003-HP-280-G4-MT-Business-PC: ~
File Edit View Search Terminal Help
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk '{print $3 $4}' student.lst
BatchLname
PawaskarOm
RaulSanchit
YadavAtharva
UpadhyayYuvraj
MauryaAryan
NemadeKunal
RajputDigvijay
MarriVamshi
SoniDarshan
NaikRohan
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk '/S21/' student.lst
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk '/gmail/' student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
98 S22 Raul Sanchit 9123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
100 S23 Upadhyay Yuvraj 9970862541 uYuvraj@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk '$1>100' student.lst
Roll No Batch Lname Fname Mobile Email
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk 'NR>=3 && NR<=8' student.lst
98 S22 Raul Sanchit 9123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
100 S23 Upadhyay Yuvraj 9970862541 uYuvraj@gmail.com
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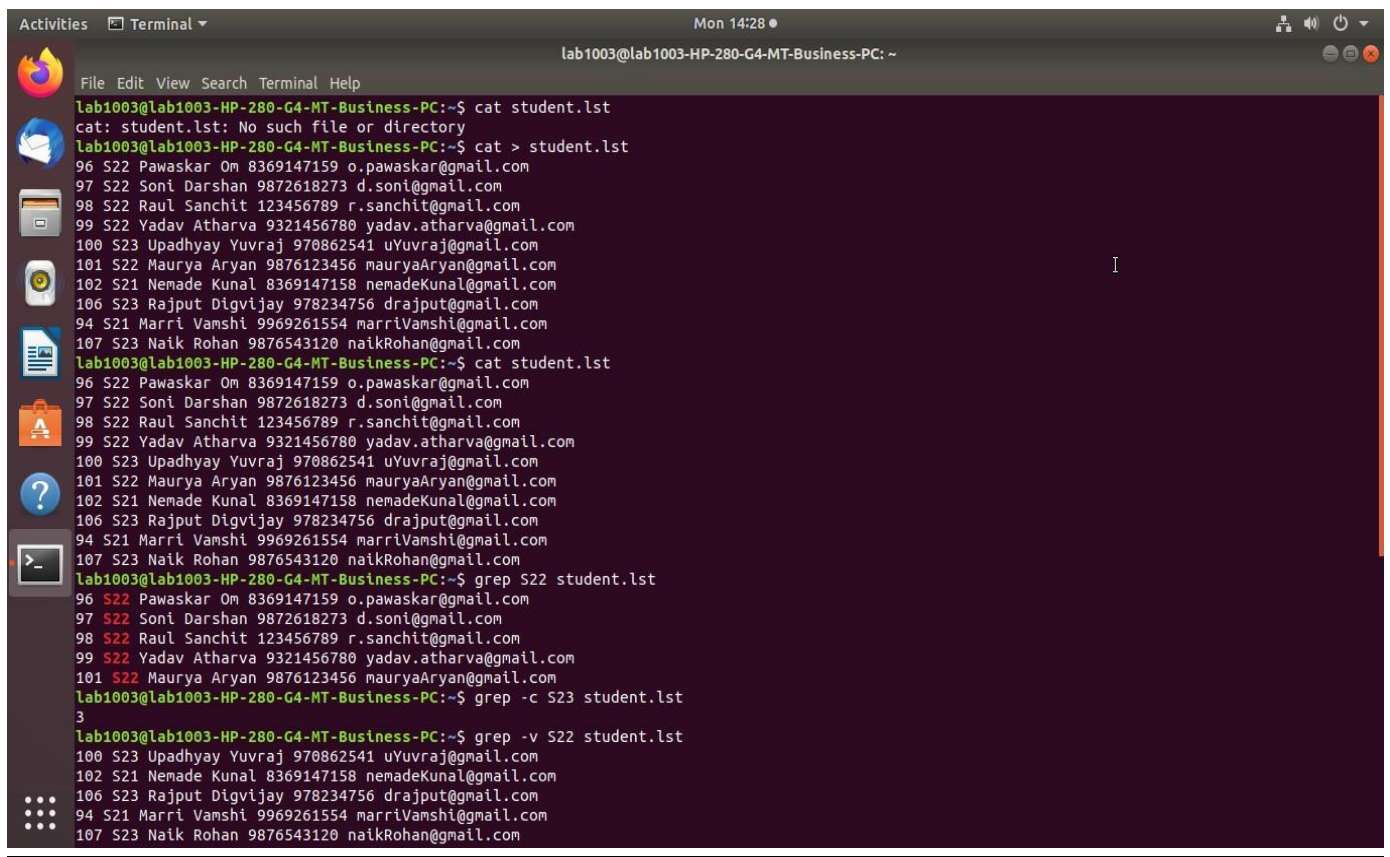
GREP COMMANDS :

Purpose: grep is a command-line utility for searching plain-text data sets for lines that match a regular expression.

Used for searching and filtering text based on patterns.

Displays lines from a file or output that match the specified pattern.

It can be combined with other commands using pipes (|) to perform more complex text processing.

A terminal window titled 'lab1003@lab1003-HP-280-G4-MT-Business-PC: ~' showing a series of commands and their outputs. The user first attempts to cat a file 'student.lst' which doesn't exist, then creates it with a list of student records. They then use 'grep' to filter lines containing 'S22' and 'S23', and finally use 'grep -v' to show lines that do not contain 'S22'.

```
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ cat student.lst
cat: student.lst: No such file or directory
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ cat > student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ cat student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep S22 student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep -c S23 student.lst
3
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep -v S22 student.lst
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
```

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Activities Terminal Mon 14:29 lab1003@lab1003-HP-280-G4-MT-Business-PC: ~

File Edit View Search Terminal Help

lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep S22 student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep -c S23 student.lst
3
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep -v S22 student.lst
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep 1 student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep "^1" student.lst
100 S23 Upadhyay Yuvraj 970862541 uYuvraj@gmail.com
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com
106 S23 Rajput Digvijay 978234756 drajput@gmail.com
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ grep ^[1] student.lst
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com
97 S22 Soni Darshan 9872618273 d.soni@gmail.com
98 S22 Raul Sanchit 123456789 r.sanchit@gmail.com
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$
```

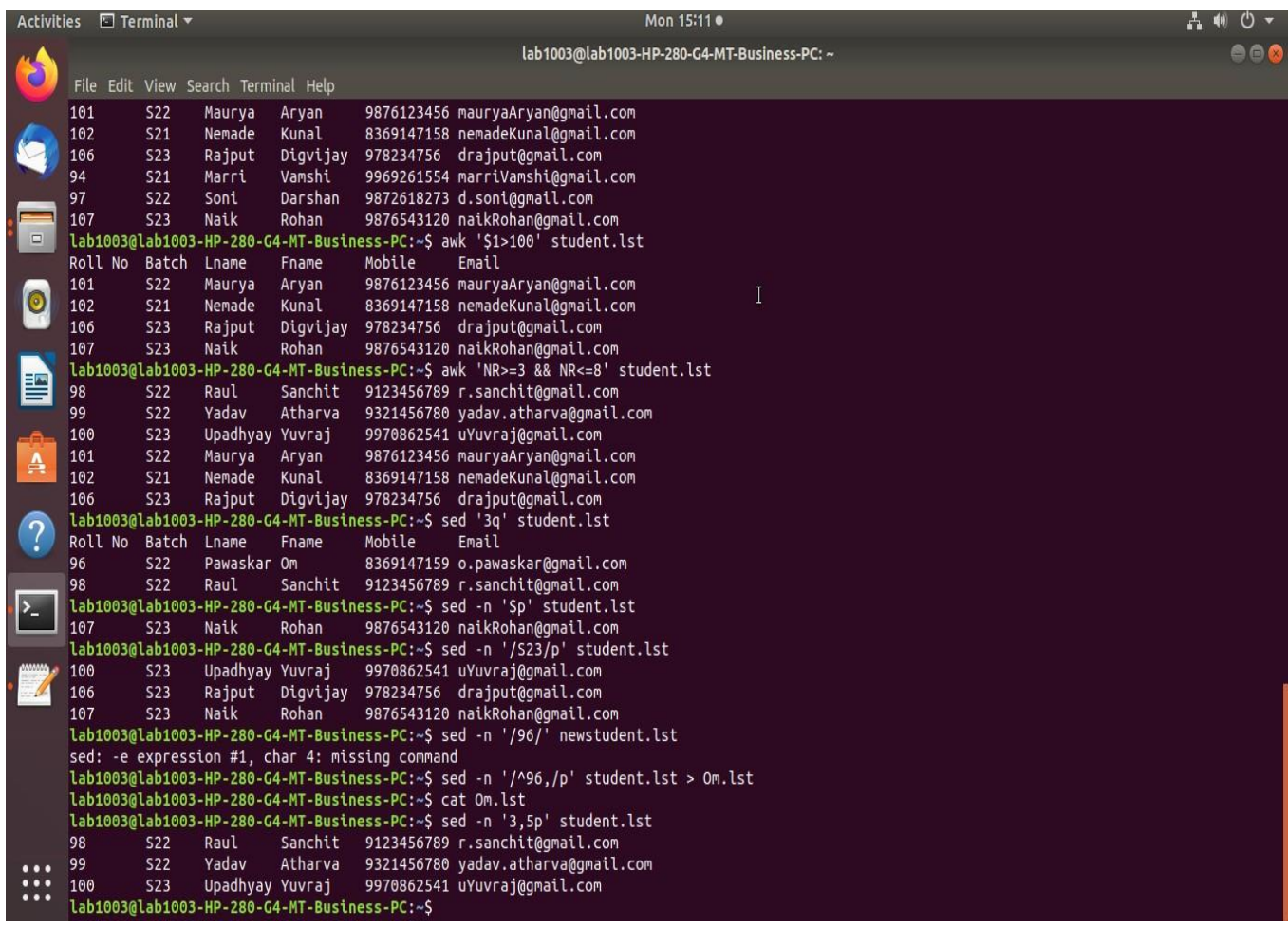

SED COMMANDS :

Purpose: sed (stream editor) is a text stream processing command that performs basic text transformations on an input stream.

Primarily used for search and replace operations in a text file or stream.

Can be used for more complex text manipulations, such as inserting or deleting lines, based on specified patterns.

Works well in pipelines with other commands.



```
lab1003@lab1003-HP-280-G4-MT-Business-PC: ~  
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com  
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com  
106 S23 Rajput Digvijay 978234756 drajput@gmail.com  
94 S21 Marri Vamshi 9969261554 marriVamshi@gmail.com  
97 S22 Soni Darshan 9872618273 d.soni@gmail.com  
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk '$1>100' student.lst  
Roll No Batch Lname Fname Mobile Email  
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com  
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com  
106 S23 Rajput Digvijay 978234756 drajput@gmail.com  
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ awk 'NR>=3 && NR<=8' student.lst  
98 S22 Raul Sanchit 9123456789 r.sanchit@gmail.com  
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com  
100 S23 Upadhyay Yuvraj 9970862541 uYuvraj@gmail.com  
101 S22 Maurya Aryan 9876123456 mauryaAryan@gmail.com  
102 S21 Nemade Kunal 8369147158 nemadeKunal@gmail.com  
106 S23 Rajput Digvijay 978234756 drajput@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed '3q' student.lst  
Roll No Batch Lname Fname Mobile Email  
96 S22 Pawaskar Om 8369147159 o.pawaskar@gmail.com  
98 S22 Raul Sanchit 9123456789 r.sanchit@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed -n '5p' student.lst  
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed -n '/S23/p' student.lst  
100 S23 Upadhyay Yuvraj 9970862541 uYuvraj@gmail.com  
106 S23 Rajput Digvijay 978234756 drajput@gmail.com  
107 S23 Naik Rohan 9876543120 naikRohan@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed -n '/96/' newstudent.lst  
sed: -e expression #1, char 4: missing command  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed -n '/^96,/p' student.lst > Om.lst  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ cat Om.lst  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$ sed -n '3,5p' student.lst  
98 S22 Raul Sanchit 9123456789 r.sanchit@gmail.com  
99 S22 Yadav Atharva 9321456780 yadav.atharva@gmail.com  
100 S23 Upadhyay Yuvraj 9970862541 uYuvraj@gmail.com  
lab1003@lab1003-HP-280-G4-MT-Business-PC:~$
```

