1. Replace **REGEX** in the following command so that it displays all the users in the system (from the /etc/passwd file) whose username starts with a vowel.  
Inlocuiti **REGEX** in urmatoarea comanda astfel incat sa afiseze toti utilizatorii din sistem (din /etc/passwd) al caror username incepe cu vocala.  
**grep -E "REGEX" /etc/passwd**

grep -E "^[aeiouAEIOU]" passwd.fake

1.2 Replace **REGEX** in the following command so that it displays all the users in the system (from the /etc/passwd file) whose name starts with a vowel.  
Inlocuiti **REGEX** in urmatoarea comanda astfel incat sa afiseze toti utilizatorii din sistem (din /etc/passwd) al caror username incepe cu vocala.  
**grep -E "REGEX" /etc/passwd**

grep -E "\<[AEIOU][a-z]+ " passwd.fake

2. Replace **REGEX** in the following command so that it displays the names of students whose user id (the number in the username) contains only even digits.  
Inlocuiti **REGEX** in urmatoarea comanda astfel incat sa afiseze numele studentilor al caror username contine doar cifre pare.  
**grep -E "REGEX" /etc/passwd**

grep -E "[a-z]{4}[02468]{4}" passwd.fake | sed "s/\//:/gi" | awk -F":" '{print $5}'

3. Replace **REGEX** in the following command so that it displays the names and group of all the students from odd numbered groups.  
Inlocuiti **REGEX** in urmatoarea comanda astfel incat sa afiseze numele si grupa studentilor din grupele cu numar impar.  
**cut -d: -f5,6 /etc/passwd | grep -E "REGEX"**  
Hint: run the **cut -d: -f5,6 /etc/passwd** command first to see what information you are working with and create the REGEX starting from there.

grep -E "(scs/gr)[0-9]{2}[13579]" passwd.fake | sed "s/\//:/gi" | awk -F":" '{print $5," - ",$9}'

4. Using grep on the campus server, display the USER, PID and COMMAND for each process that is not run by a student account (consider that a student account contains exactly 4 letters and 4 digits). Hint: use ps aux or ps -ef to get the list of all the processes and cut to extract the required fields.  
Folosind grep pe serverul din campus, afisati campurile USER, PID si COMMAND pentru fiecare proces care nu este rulat de un cont de student (considerati ca un cont de student contine exact 4 litere si 4 cifre). Sfat: folositi ps aux sau ps -ef pentru a afisa toate procesele si cut pentru a extrage campurile cerute.

ps -ef | grep -E "^[a-z]{4}[0-9]{4}" | awk -F" " '{print $1," - ",$2," - ",$8}'

5. Display how many lines from a file contain only non-alphanumeric characters (ie. not letters or digits).  
Afisati cate linii dintr-un fisier contin doar caractere non alfanumerice (nu sunt cifre sau litere).

grep -E "^[^a-z0-9]+$" new.fake -c

6. Display all the files from the current folder that have read permissions for the owner, group and other.  
Afisati toate fisierele din directorul curent care au drepturi de citre pentru owner, grup si other.

ls -l | grep -E "^.r.+ " | awk -F" " '{print $9}'

7. Using the last command display how many times a user has logged in the system.  
Folosing comanda last, afisati de cate ori s-a logat fiecare user in sistem.

last | awk -F" " '{print $1}' | sort | uniq -c

8. For each file in the current directory, display only the owner's permissions and the filename.  
Pentru fiecare fisier din directorul curent, afisati doar permisiunile proprietarului si numele fisierului.

ls -l | grep -E "^.r.+ " | awk -F" " '{print $1,$9}' | sed -E "s/([d-])//"

9. Display the number of lines in a file.  
Afisati numarul de linii dintr-un fisier.

grep -E "" passwd.fake

9.1 Display the digits from a file.  
Afisati numarul de cifre dintr-un fisier.

sed "s/[^0-9]//gi" passwd.fake

10. Display informations about the students in the system in the following format: Name - Username - Group.  
Afisati informatii despre studentii din sistem dupa urmatorul format: Nume - Nume utilizator - Grupa.

grep -E "" passwd.fake | sed "s/\//:/gi" | awk -F":" '{print $5,"-",$1,"-",$9}'

11. Display all the student groups and the number of students in each one.  
Afisati toate grupele de studenti si numarul de studenti din fiecare grupa.

grep -E "" passwd.fake | sed "s/\//:/gi" | awk -F":" '{print $9}' | sort | uniq -c

12. Determine the number of duplicate lines in a file.  
Afisati numarul de linii duplicate dintr-un fisier.

grep -E "" passwd.fake | sort | uniq -c | awk -F" " '$1>1 {print $2}' | grep -E "" -c

13. Display the name of all text files from the current directory.  
Afisati numele tuturor fisierelor de tip text din directorul curent.

ls -l | grep -E "^-" | awk -F" " '{print $9}'

14. Display all the files smaller than 100 bytes.  
Afisati toate fisierele mai mici de 100 de octeti.

ls -l -S | awk -F" " '$5>100 {print $9,"-"$5}'

15. Count the number of lines ending in vowel and the number of lines ending in consonant.  
Numarati liniile care se termina cu vocala si numarul de linii care se termina cu consoana.

ps -fe | grep -E "[aeiou]$" -c; ps -fe | grep -E "[a-z^aeiou]$" -c