**GREP SED Lab problems**

Lab 4 – Lab work (2 problems must be solved: one with grep (g[0-9]+), one with sed (s[0-9]+)

No. Problem statement

**s1 Write a shell script which takes as parameters a file name followed by several words. The script will delete all occurrences of the words given as parameters in the given file.**

**g1 Write a shell script which takes as parameter a directory name. The script will display the content of all text files in given directory and its subdirectories.**

**s2 Write a shell script which takes as parameters a text followed by several file names. The script will delete all the lines which contain the text given as parameter in all given files.**

**g2 Write a shell script which takes as parameters a word followed by several file names. The shell will display the names of the files containing the given word and the total number of these files.**

**s3 Write a shell script which takes as parameters a word followed by several file names. The shell will delete all the lines containing the given word in all given files.**

**g3 Write a shell script which takes as parameters a few directory names. The script will display the names of all binary files in the given directories and their subdirectories.**

**s4 Write a shell script which takes as parameters an uppercase letter followed by several file names. The script will add the given letter in the front of each lowercase on each line in all given files.**

**g4 Write a shell script which takes as parameter a group name (ex: gr821). The script will display the given group name followed by the list of all users that belongs to that group.**

**s5 Write a shell script which takes as parameters several file names. The script will delete all words that contain at least one digit from all given files.**

**g5 Write a shell script which takes as parameter a command name (ex: ping). The script will display all user accounts running the given command.**

**s6 Write a shell script which takes as parameters a lowercase letter followed by several file names. The script will replace any special character with the given letter in all files given as parameters.**

**g6 Write a shell script which takes as parameters a short month name followed by a day number (ex: Mar 8). The script will display all user accounts that were connected to the server that day of month.**

**s7 Write a shell script which takes as parameters several file names. The script will replace all lowercase vowels with corresponding uppercase letters in each line of the given files.**

**g7 Write a shell script which takes as parameters several host names (ex: www.cs.ubbcluj.ro www.google.ro). The script will display the host names (from those given as parameters) that are alive. Use the ping command to verify that a given host is alive.**

**s8 Write a shell script which takes as parameters several file names. The script will replace the 3rd word with the 1st word in each line of the given files. The words shall contain only letters or numbers and shall be separated by ":".**

**g8 Write a shell script which takes as parameters several user accounts (ex: gmae0221 jpae0229). The script will display those user accounts (from those given as parameters) that are currently connected to the server.**

**s9 Write a shell script which takes as parameters several file names. The script will delete the 2nd and 4th word in each line of the given files. The words shall contain only letters or numbers and shall be separated by spaces.**

**g9 Write a shell script which takes as parameters several user accounts (ex: gmae0221 jpae0229). The script will display the user accounts (from those given as parameters) that are currently connected to the server.**

**s10 Write a shell script which takes as parameters several file names. The script will interchange the 1st word with 3rd word in each line of the given files. The words shall contain only letters or numbers and shall be separated by any other character.**

**g10 Write a shell script which takes as parameters several user accounts (ex: gmae0221 jpae0229). The script will display all directories in each user's home directory that have write permission for the group of which the owner belongs.**

**s11 Write a shell script which takes as parameter a HTML file name. The script will convert the given HTML file to a text file (all HTML tags will be removed).**

**g11 Write a shell script which takes as parameters several user accounts (ex: gmae0221 jpae0229). The script will display those user accounts (from those given as parameters) that have never been connected to the server.**

**s12 Write a shell script which takes as parameters a lowercase letter followed by several file names. The script will replace each digit with the letter given as a parameter in all given files.**

**g12 Write a shell script which takes as parameters a file name followed by several directory names. The script will delete all files whose names are given in the file received as first parameter in the given directories and their subdirectories.**

**s13 Write a shell script which takes as parameters several file names. The script will delete the first 2 characters on each line in the given files.**

**g13 Write a shell script which takes as parameters several file names. The script will display all the lines in the given files that don't contain any letter or digit.**

**s14 Write a shell script which takes as parameters a text followed by several file names. The script will insert the given text after the 1st line in the given files.**

**g14 Write a shell script which takes as parameters several file names. The script will display all the lines in the given files that contain only uppercase letters.**

**s15 Write a shell script which takes as parameters several file names. The script will delete the last 3 characters on each line in the given files.**

**g15 Write a shell script which takes as parameters several file names. The script will display all the lines in the given files that contain only lowercase letters.**

**AWK**

**Utilizati awk pentru a scrie un script shell care rezolva problemele de mai jos:**

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| a | 1 | **Sa se afiseze pentru fiecare fisier din linia de comanda raportul dintre numarul de vocale si numarul de consoane.** |
| a | **2** | **Sa se afiseze continutul fisierelor date prin parametri, fiecare fisier fiind afisate in ordinea inversa a liniilor; mai intai se afiseaza ultima linie, apoi penultima etc).** |
| a | **3** | Sa se afiseze continutul fisierelor date ca parametri, astfel incat cuvintele sa fie scrise in ordine inversa (cuvintele sunt separate de ':', puteti utiliza /etc/pseudopasswd). |
| a | 4 | Sa se identifice liniile din fisierele date ca parametri care contin un cuvant aflat in pozitii consecutive. Pentru liniile respective sa se afiseze numarul liniei si cuvantul implicat (in cadrul fisierului din care face parte). Cuvintele sunt separate prin spatii. |
| a | 5 | Sa se identifice din fiecare fisier numerele liniilor care au lungimea cel putin 10. Sa se afiseze continutul liniilor respective, mai putin primele 10 caractere. La terminarea analizei unui anumit fisier se va afisa, pe urmatoarea linie, numarul de linii care au fost afisate. Fisierelor vor fi date prin parametri in linia de comanda, iar rezultatul va fi afisat la iesirea standard. |
| a | 6 | Sa se afiseze pentru fiecare fisier: numele acestuia si numarul mediu de cuvinte per linie (media nr. de cuvinte pentru liniile fisierului). Cuvintele sunt separate prin spatiu. Fisierele vor fi date prin parametri, iar rezultatul va fi afisat la iesirea standard. |
| a | 7 | Sa se afiseze pentru fisierele date ca parametri, pentru liniile din acestea care sunt mai lungi de 30 de caractere, urmatoarele informatii: numarul liniei (din cadrul fisierului), primul cuvant si ultimul. Cuvintele sunt separate prin spatiu. |
| a | 8 | Sa se faca suma tuturor campurilor, care reprezinta numere valide, din liniile unui fisier dar ca parametru. La terminarea analizei lui sa se afiseze suma obtinuta si raportul dintre numarul de linii care contin numere valide si cele care nu contin deloc numere valide. |
| a | 9 | Sa se identifice numele tuturor fisierelor din linia de comanda care contin propozitii in care un cuvant se repeta de cel putin doua ori. Putem considera ca o propozitie se afla pe o linie. Cuvintele sunt separate prin spatiu. |
| a | 10 | Sa se afiseze dintr-o serie de fisiere (date prin parametri) numele acelui fisier care are numar maxim de cuvinte. Cuvintele sunt separate prin spatiu. Sa se afiseze si numarul cuvintelor. |
| a | 11 | Sa se calculeze pentru fiecare din fisierele date ca parametrii in linia de comanda cuvantul care apare de cele mai multe ori. Fisierele au cuvinte separate prin spatiu. Folositi siruri asociative. |
| a | 12 | Sa se calculeze pentru fiecare din fisierele date ca parametrii in linia de comanda top 3 cele mai utilizate cuvinte. Fisierele au cuvinte separate prin spatiu. Folositi siruri associative. |
| a | 13 | Sa se calculeze pentru fiecare din fisierele date ca parametrii in linia de comanda top 3 cele mai utilizate cuvinte. Fisierele au cuvinte separate prin spatiu. Folositi siruri associative. |
| a | 14 | Sa se calculeze pentru fiecare din fisierele date ca parametrii in linia de comanda media artimetica a numerelor din a treia respectiv a patra coloana. Puteti utiliza /etc/pseudopasswd. |
| a | 15 | **Sa se calculeze pentru fiecare din fisierele date ca parametrii in linia de comanda produsul tuturor numerelor de doua cifre din fisier.** |