

## L06-Shell-2

Deadline week 8

No.	Assignment
1	Given a C program, write a Shell script that finds how many times each function defined in the program is called, and prints the line number for each function call in the program.
2	Given a text file, write a Shell script that creates a directory which contains 26 dictionary-files, such that: the first file contains in alphabetical order all the words from the initial file that start with 'A', one word per line, the second file contains all words starting with 'B' and so on, each files contains all the world starting with that letter, each word on a new line, ordered alphabetically
3	A file is given, containing all students from a group, ordered by the average grade received in the winter exams session. Write a Shell script that, given the grades from the 5 exams in the summer exam session in the file 'summer grades', the script will update the average grade per year for each student and sort the initial file based on the yearly average grade.
4	Given a list of filenames and a directory name, write a Shell script that prints for each file all the subdirectories in which it appears. Print these subdirectories sorted in decreasing order of the creation date and time.
5	Write a Shell program that receives as parameters two directory names and moves the branch specified by the second directory in the first directory, as a subbranch, adding the extension .unu to each file contained.
6	Write a Shell program that, starting with the directory given as a first parameter, downwards (recursively), creates a list of all names that appear (files and directory), and for each filename it prints the number of files with the same name.
7	Write a Shell program that supervises the system, such that: for each new connection in the system, on the terminal from which the connection was made, it will print a list of all active users from the system, and for each user it will print the number of launched processes by that user.
8	A C++ program is given. Determine for each class defined in the program the number of instances where new objects are being created, printing the line numbers.
9	Write a Shell program that supervises the system, such that: each time certain users (given as parameters) connect to or disconnect from the system, it will save in a file the username, time, if it's new connection or disconnection, and the server on which the action was made.
10	Write a Shell program that supervises the system, such that: the program saves in a file all the users that launch the command ftp, specifying the time and (if available) the server from which the ftp connection is being attempted.
11	Given a list of files and a directory, print for each filename all the subdirectories in which it appears, ordered decreasingly by the file size (a file can have the same name but different sizes in different subdirectories).
12	Write a Shell program that, given a directory (as a parameter), creates a list of all the names that appear in it and its subdirectories (files, directories), and for each file it prints the maximum number of repeating lines (in the same file).
13	Given a text file, write a Shell script that creates a directory containing 10 dictionary files corresponding to the 10 digits (0-9), and each file contains all the strings from the text file that start with that digit, each on a separate line, ordered alphabetically.

14	Given a C program, write a Shell script that finds for each global variable defined in the program, how many times it is used, printing also the program line numbers where it appears.
15	A file is given, containing all students from a group, ordered by the average grade received in the winter exams session. Write a Shell script that, given the grades from the 5 exams in the summer exam session in the file 'summergrades', the script will update the average grade per year for each student and print the students that will receive a scholarship (grades greater than 8.50).
16	Write a Shell program that receives as parameters two directory names and will copy the branch specified by the second directory to be a subbranch in the first directory, but it will copy only .txt files.