Introduction to BASH ……2022/2023

To pass the course:
part A – create two of shell scripts
part B – create two of shell scripts
part C – create one of shell scripts

Remember about details, for example: to check the type of user input if it is necessary.

Be ready to present your scripts: May, June, during classes.

part A

`A1.sh` -- when executing asks for a login, the user enters it from the console. If the login is "admin", the message "ready to work" is displayed, otherwise the message "You do not have login access. Apply for a one-time access key to the admin" is displayed on a monitor screen.

`A2.sh` -- script in which two integers (read from the keyboard) are entered from the user and the square root of the product is displayed, if possible. Otherwise, an appropriate message is displayed.

`A3.sh` -- that will execute the question for the user: do we calculate the square or cube of the number? According to the user's choice it will calculate the appropriate power of the number given from the console.

`A4.sh` -- use the while loop. As a result of the operation of this script, all natural numbers will be printed, starting from the nth and ending with the mth (n and m are given as parameters when calling the script - on the command line).

`A5.sh` -- script in which you ask about the level of the language course (1, 2, 3) and, depending on the level, specify the date of the course: level 1 - Tuesday 8-10 room 100 level 2 - Wednesday 8-10, room 102 level 3 - Thursday 10-12 room 103, other - no group

part B

`B1.sh` – a script displaying the message "Bravo name" called with the parameter in the form of first name.

`B2.sh` -- script called with two parameters, which will write to the screen the values of these parameters, their sum, their difference and appropriate messages describing these results.

`B3.sh` -- script which will ask the user for a number in the range (0, 25) and will display "okay" if the given number is in that range, otherwise "not good".

`B4.sh` -- script which will ask the user for a number and, depending on the value of that number, will display the following message: a positive number was specified a negative number was specified the number is zero.

`B5.sh` -- script which will search your home directory for a resource with a usersupplied name. If it finds a resource

- in the case of a file: it will display a message about finding a resource and information about it in the long version
- for directory: will display a message about finding a resource and information about its content
- if there is no resource with this name: it will display the message "resource not found"

`B6.sh` -- script which (using a for loop) will output:

A tiger lives in our zoo.
A lion lives in our zoo.
A zebra lives in our zoo.
A seal lives in our zoo.
A butterfly lives in our zoo.

`B7.sh` -- Create the moved_texts directory and the new_texts directory, with three empty files in it: one.txt, two.txt, three.txt. Write the script that will move files with the extension .txt from the new_texts directory to the moved_texts directory.

`B8.sh` -- Modify script `B7.sh` to the form that it will be called with two parameters on the command line (paths with the addresses of the corresponding directories).

`B9.sh` – script which uses a while loop to calculate the sum of three consecutive decreasing integers, the first of which is given by the user from the console. The message "The sum calculated using the while loop is ..." is to be displayed on the screen.

`B10.sh` -- script that will calculate the sum of 1 + 2 + 3 + ... + n, where n is loaded by the user from the console. Use a while loop.

`B11.sh` -- Modify the script. B10.sh to the form in which the message "you entered a negative number" or a calculated sum with a given natural number is displayed.

`B12.sh` -- script that asks the user "Next or Finished?" until a choice “end” is made, followed by a "see you later" message.

a) use the loop until

b) use a while loop

part C

`C1.sh` Write a simple shell script that takes a path of a directory as a command line argument (parameter) and list all files and folders inside the given directory.

`C2.sh` Write a shell script that takes an unspecified number of command line arguments of four ints and finds their sum. Modify the code to add a number to the sum only if the number is greater than 10.

`C3.sh` Write a shell script takes the name a path, and counts all the sub directories (recursively).

`C4.sh` Write a shell script that takes a name of a folder as a command line argument, and produce a file that contains the names of all sub folders with size 0 (that is empty sub folders)

`C5.sh` Write a shell script that takes a name of a folder, and delete all sub folders of size 0.

`C6.sh` Write a shell script that will take an input file and remove identical lines (or duplicate lines from the file)