



# B1- Unix and C Lab Seminar

B-CPE-100

Day 02

Shell language

v2.0





# Day 02

### Shell language

binary name: no binary

repository name: CPool\_DayO2\_\$ACADEMICYEAR

repository rights: ramassage-tek

language: bash group size: 1



• Your repository must contain the totality of your source files, but no useless files (binary, temp files, obj files,...).

- All the bonus files (including a potential specific Makefile) should be in a directory named bonus.
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (O if there is no error).



Create your repository at the beginning of the day and submit your work on a regular basis!



# The Beginning

#### Resources

You will need a few resources in order to complete today's tasks.

Please download the files of the folder "resources" of the project on the intranet - next to this pdf. In the following tasks' examples these files will be placed in a directory called **Day02**.



The directory's content is subject to change throughout the day. Remember to keep it up to date.

### Task 01

how\_many\_are\_we.sh



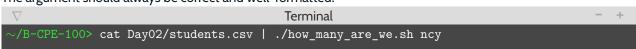
When dealing with a script, remember to set execution permission

Write a script, named how\_many\_are\_we.sh that displays, give a city as an argument, the number of students in the city.

If no parameter is given, the script will display the total number of students.

In order to retrieve the data, use the following file: students.csv

The argument should always be correct and well-formatted:





When you're writing a script don't forget the shebang





## Task 02

#### find\_sh.sh

Write a script, named  $find_{sh.sh}$  that searches for each file name ending by .sh within the current folder and each of its subfolders and displays them.

### Task 03

#### count\_files.sh

Write a script, named <code>count\_files.sh</code> that displays the number of regular files in the current folder and each of its subfolders.



 $\nabla$  Terminal - +  $\times$   $\sim$  /B-CPE-100> ./count\_files.sh 3

### Task 04

### gotta\_catch\_them\_all.sh

Write a script, named  $gotta_catch_them_all.sh$  that displays the number of people whose last names start with the string given in argument to your script.

Use the "passwd" file in Day02:





### **PATH**

#### Run your scripts from anywhere

In order to use your scripts from any location, you might want to create a folder named  $my\_scripts$  in your home directory,  $\sim$ /my\_scripts and then copy your useful scripts into that folder.

Commands that you use in a shell *must* be located in a folder that is listed in the **PATH** environment variable.

You will want to add your  $\sim$ /my\_scripts folder to the \$PATH variable.

In order to do this, change the configuration of the /.bashrc file.



### Task 05

### Encrypted

The task's content can be found in DayO2, but it is encoded using a substitution cipher.

Here is the key: LONEYTUSARFPDHIKZBCGJMQVWX

The result can be obtained in just one command line!

### Task 06

#### skip.sh

Write a script, named skip.sh that takes the output of a command and then, starting with the first one, only displays one row out of two.

```
Terminal - + X

~/B-CPE-100> ls

skip.sh toto tata tutu titi tete

~/B-CPE-100> ls | ./skip.sh

skip.sh

tata

titi
```



## Task 07

#### r\_tacpy.sh

Write a script, named  $r_{tacpy}$ . sh, that retrieves the output of the command **cat passwd**, and then, starting with the second one, displays one line out of two by reversing each letter of each login.

They will be sorted in reverse order, and will only save logins between MY\_LINE1 and MY\_LINE2, separated by a comma, and ending with a point and a line break.



MY\_LINE1 and MY\_LINE2 are environment variables

Between lines 24 and 42 the result might be:

Terminal — + X

~/B-CPE-100> z\_iew, z\_idauoj, z\_hcinh, z\_habsem\_ante, z\_guomah, z\_girdor, z\_farhca,
z\_evuohc, z\_ettorb, z\_etset, z\_etanok, z\_elliap, z\_ehkuob, zeek, zdud, z\_dnarud, z\_dahuob,
z\_cdadah, z\_azhral\_ante.