Institute of Natural and Life Sciences
Course: R Language
Department of SNV
Specialty: L2 SNV (SB+BV)
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Practical Work N°1

EXERCISE N° : 1

1. Download the software **R** (version 4.2.1) for the appropriate operating system by following the steps below:

- Go to the Google browser and type R.
- Click on CRAN.
- Click on Download R for Windows.
- Click on Install R for the first time.
- Download R-4.2.1 for Windows.

2. Go to the downloads on your computer and double-click on the file:

R-4.2.1-win.exe

3. Complete the installation steps of the **R** software.

EXERCISE N° : 2

1. Create a folder on the desktop named: yourlastname_yourfirstname.
2. Go to the R4.2.1 shortcut on the desktop and double-click it.
3. Enlarge the console to enter scripts.

Variable creation:

1. Type the following commands in the console and observe the displayed results:
   $> \mathbf{x = 7}$
   $> x = 2$,
   $>$ **x**, what do you notice?
   $>$ **X**, read the error message and what do you notice from this message?
   $> \mathbf{x} < -7$
   7-$>$ **x**, give a conclusion.

> **3** variable = **8**, read the error message and what do you notice from this message?
> variable3 = **8**, what do you notice?
> @variable = **8**, read the error message and what do you notice from this message?

variable@=9, read the error message and what do you notice from this message?
variable_var = **8**, what do you notice from this message?
ls() , what is the role of this function?
rm(variable3)
variable3, what do you notice? what is the role of this function?

EXERCISE N° : 3

1.Type the following commands in the console and observe the displayed results:

1. $>\mathbf{x}<-5>\mathbf{y}<-\mathbf{4}>\mathbf{x}+\mathbf{y}\quad>\mathbf{x}-\mathbf{y}\quad>\mathbf{x}/\mathbf{y}\quad>\mathbf{x}^{*}\mathbf{y}$
2. $>\mathbf{aa}<-\mathbf{x}+\mathbf{y}\quad>\mathbf{bb}<-\mathbf{x}-\mathbf{y}\quad>\mathbf{cc}<-\mathbf{x}/\mathbf{y}\quad>\mathbf{dd}<-\mathbf{x}^{*}\mathbf{y}$
3. $>$ ls() $>$ abs(**x**) $>$ sqrt(**x**) $>$ *help*(sqrt) $>$ exp(1) $>$ exp(**x**)
4. $>$ log(x) $>$ log 2(x) $>$ log 10(x) $>$ log(x, base = 2) $>$ *help*(log)
   2.Creation of character string variables:
5. prenom= " anwar "
6. prenom= 'yassin'
7. prenom<- "anwar"
8. prenom= 'je m'appelle anwar', read the error message and what do you notice from this message? Conclusion?
9. prenom= 'jem'appel yassin',
10. prenom,

3. Creation of variables of type True or False (Boolean):

$$>b=\ \text{true}$$

> **b**, what do you notice?

$$>\ \text{B}=\text{TRUE}$$

> **B**, what do you notice?

$$>\text{ls}()$$

Another way to delete a variable:

```
>rm( list=ls(all=TRUE) )
>ls()
>q()
```

4. Save your work in the folder yourlastname_yourfirstname and convert it into winrar.