

BO-HUB

B-INN-000

WORKSHOP R-SHINY

Initiation





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language: R

build tool: no need here



- 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).

R is a programming language and free software environment for statistical computing and graphics supported by the **R** Foundation for Statistical Computing. The **R** language is widely used among statisticians and data miners for developing statistical software and data analysis.

Shiny is a **R package**, which allows creation of web interactive pages on which it's possible to perform all analyzes / action available on **R**.

With R, you handle some data called **dataframe** and these datas are often in .csv files. Let's try to handle these datas with some Dplyr (R package) functions.

You can find an implemented **dataframe** called *starwars* wich contain many informations about starwars characters like: gender, skin colors, species...





STEP 1

In the starwars dataframe, you have some useless informations like:

- films
- vehicles
- starships

You MUST remove them to have a better view of this dataframe.



In the Help page of Rstudio, check the select function



You can see your dataframe with the View function

STEP 2

Now, You know a way to select some **columns** in a dataframe.

Then, let's try to select some lines.

In this step, you must create a dataframe with only **female** character.



You can check the filter function





STEP 3

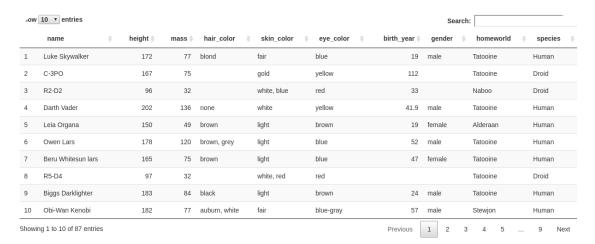
After this, you will learn how to **create** a basic **web app** which display a dataframe. To do so, you will use the Shiny package to create the web app.

Fill the ui.r and the server.r to display your dataframe.



An empty **ShinyApp** is available on the workshop repo here.

Here is a simple example of implementation:





STEP 4

Thereby, you know how to use some basic tools to manage dataframe and to display it on a web app.

So let's develop a web app to display properly dataframe and update it with some filters.

You can filter the dataframe by:

- Gender
- Species
- Skin colors
- Eye colors



You can check the selectizeInput ui object.



Check the Shiny Gallery to implement selectizeInput or other Shiny features.

Here is a simple example of implementation:

