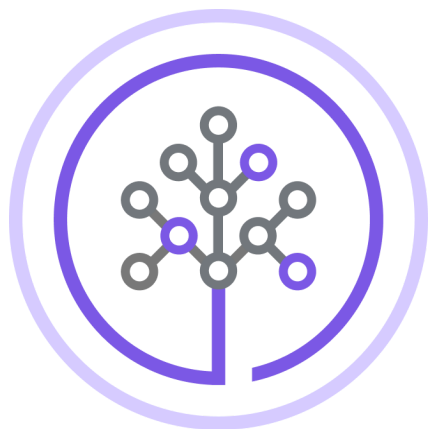


Getting started with RStudio and Installing packages



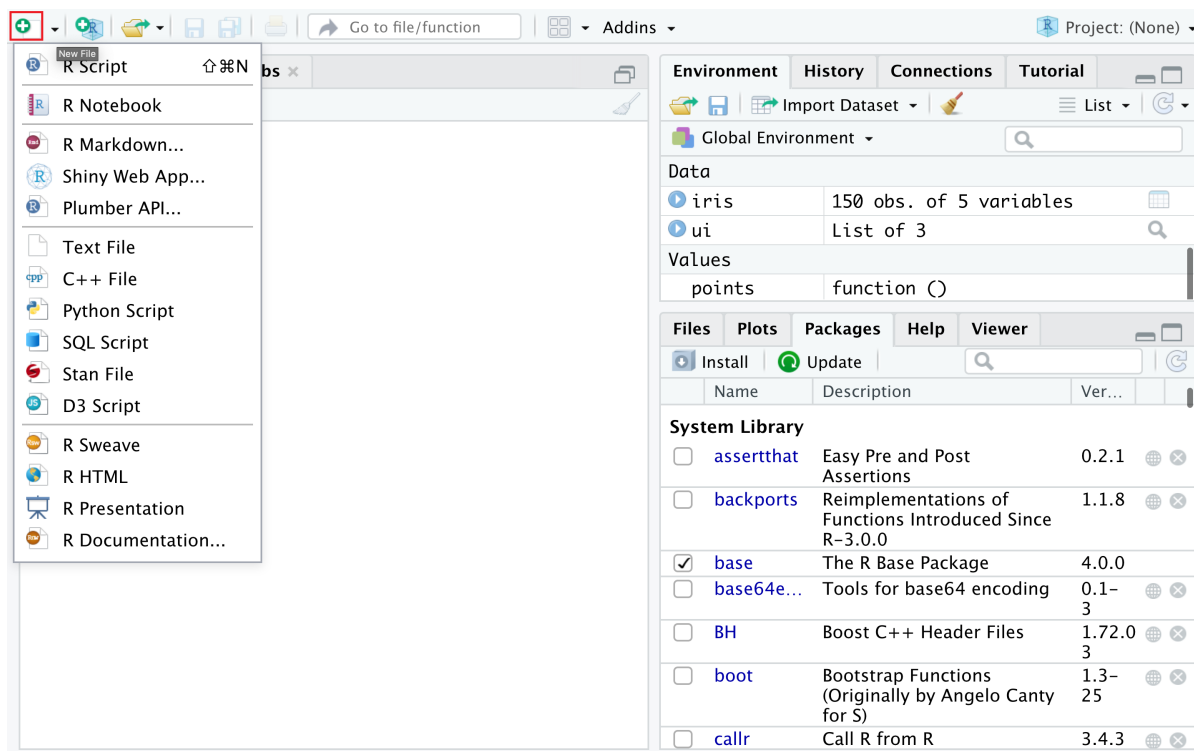
Skills Network

Objectives of Exercise:

After completing this lab, you will be able to:

- Load the datasets
- Install libraries

Step 1 - Click the plus symbol on the top left and click R Script.



An untitled R Script panel opens. It would look like this.

The screenshot shows the RStudio interface. The top toolbar includes icons for file operations and a 'Go to file/function' search bar. The main editor window, titled 'Untitled1', is empty and has a red border. Below it is the Console pane with a prompt '>'. The right sidebar contains the Environment pane, which shows the 'Global Environment' with variables 'iris' (150 obs. of 5 variables) and 'ui' (List of 3). Below this is the 'System Library' pane, which lists installed R packages: assertthat (0.2.1), backports (1.1.8), base (4.0.0), base64e... (0.1-3), BH (1.72.0), boot (1.3-25), and callr (3.4.3). The 'base' package is checked.

Step 2 - Now you load the iris dataset. Enter the following lines into the editor window that appears. Then select all the text, and click Run just above the editor window.

```
1. 1
2. 2
3. 3
```

```
1. library (datasets)
2. data(iris)
3. View(iris)
```

Copied!

The screenshot shows the RStudio interface after the R script has been entered. The editor window now contains three lines of code: `library (datasets)`, `data(iris)`, and `View(iris)`. The 'Run' button (a green play icon) is visible above the editor window. The Console pane shows the prompt '>'. The Environment pane shows the 'Global Environment' with variables 'iris' (150 obs. of 5 variables) and 'ui' (List of 3). The 'System Library' pane is also visible, showing the same list of installed R packages as in the previous screenshot.

Step 3 - You are taken to the data view tab to inspect your dataset. The dataset contains five columns and the first four are floating point type while the last column is a label of data type string which contains the category value. You can see there are total 150 entries of which you can see the first 7.

The screenshot shows the RStudio interface with the following components:

- Editor Window:** Displays the first 7 rows of the iris dataset. The columns are Sepal.Length, Sepal.Width, Petal.Length, and Petal.Width. The values are:

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width
1	5.1	3.5	1.4	0.2
2	4.9	3.0	1.4	0.2
3	4.7	3.2	1.3	0.2
4	4.6	3.1	1.5	0.2
5	5.0	3.6	1.4	0.2
6	5.4	3.9	1.7	0.4
- Console:** Shows the following commands:


```
> library(datasets)
> data(iris)
> View(iris)
> |
```
- Environment Pane:** Shows the Global Environment with the following data:

Data	Value
iris	150 obs. of 5 variables
ui	List of 3
points	function ()
- System Library:** A list of installed R packages including assertthat, backports, base, base64e..., BH, boot, and callr.

Step 4 - Now you can find the different species present in the data set. Enter the following command in the editor window and click Run.

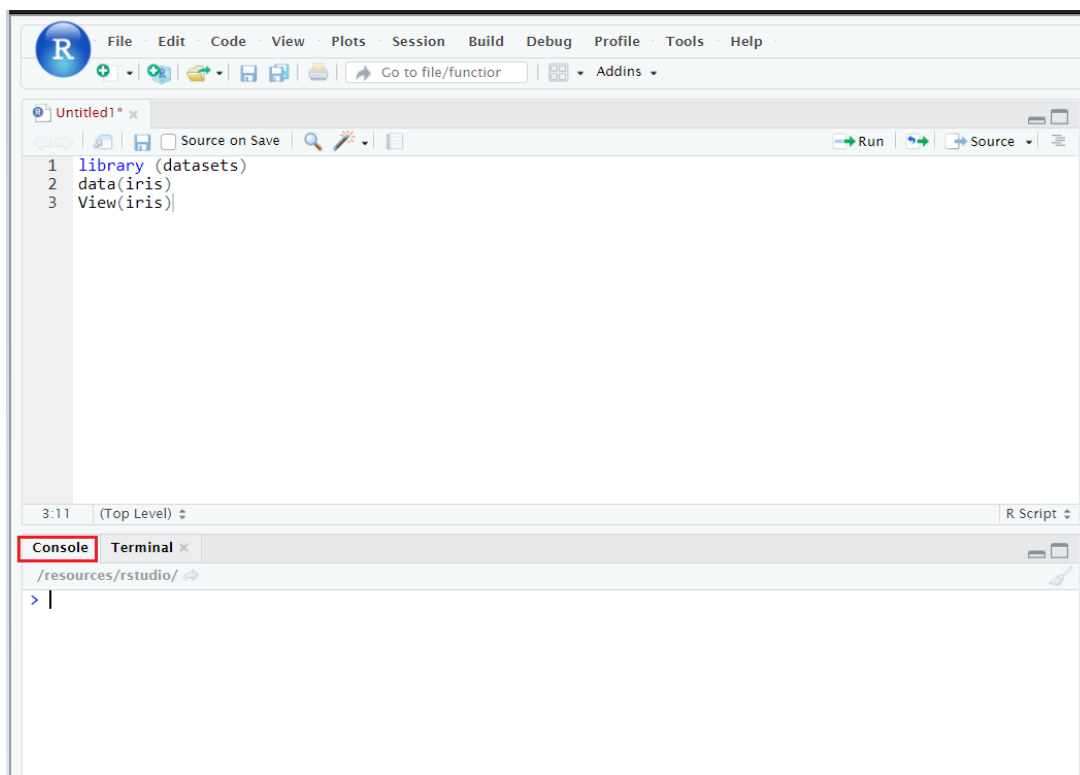
1. 1

1. `unique(iris$Species)`

Copied!

In the Console window at the bottom you can see the result of the executed command and know that there are only three different species present in the data set.

Step 5 - Next you will look into the data set in more detail. Open a Console.

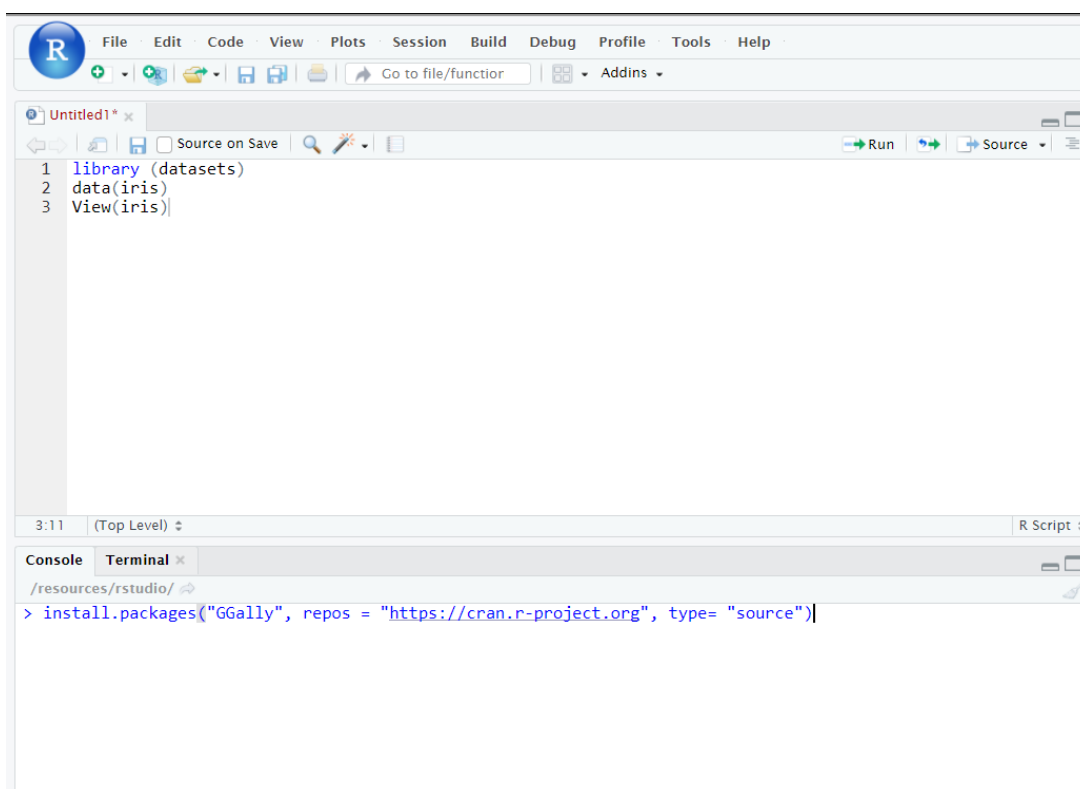


Step 6 - Run the following command in the console.

1. 1

1. `install.packages("GGally", repos = "https://cran.r-project.org", type = "source")`

Copied!



Step 7 - Click *Enter* to install the packages.

This concludes the lab; I hope you enjoyed it!

Author(s)

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Other Contributor(s)

Lavanya

Change log

Date	Version	Changed by	Change Description
2021-13-01	2.4	Malika Singla	Update the installation for R packages
2020-12-10	2.3	Aije	Moved plot steps to a new lab
2020-12-10	2.2	Malika Singla	Update the installation for R packages
2020-12-07	2.1	Aije	Changed instructions to use Skills Network Lab
2020-08-25	2.0	Lavanya	Migrated Lab to Markdown and added to course repo in GitLab

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