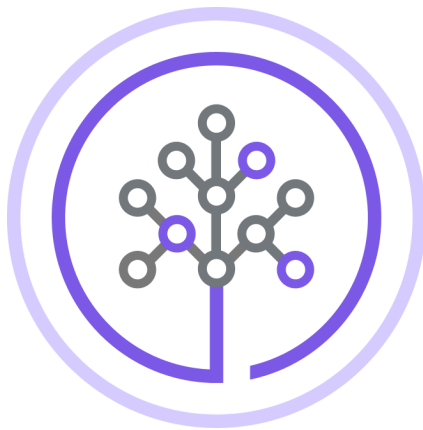


# Getting started with RStudio and Installing packages



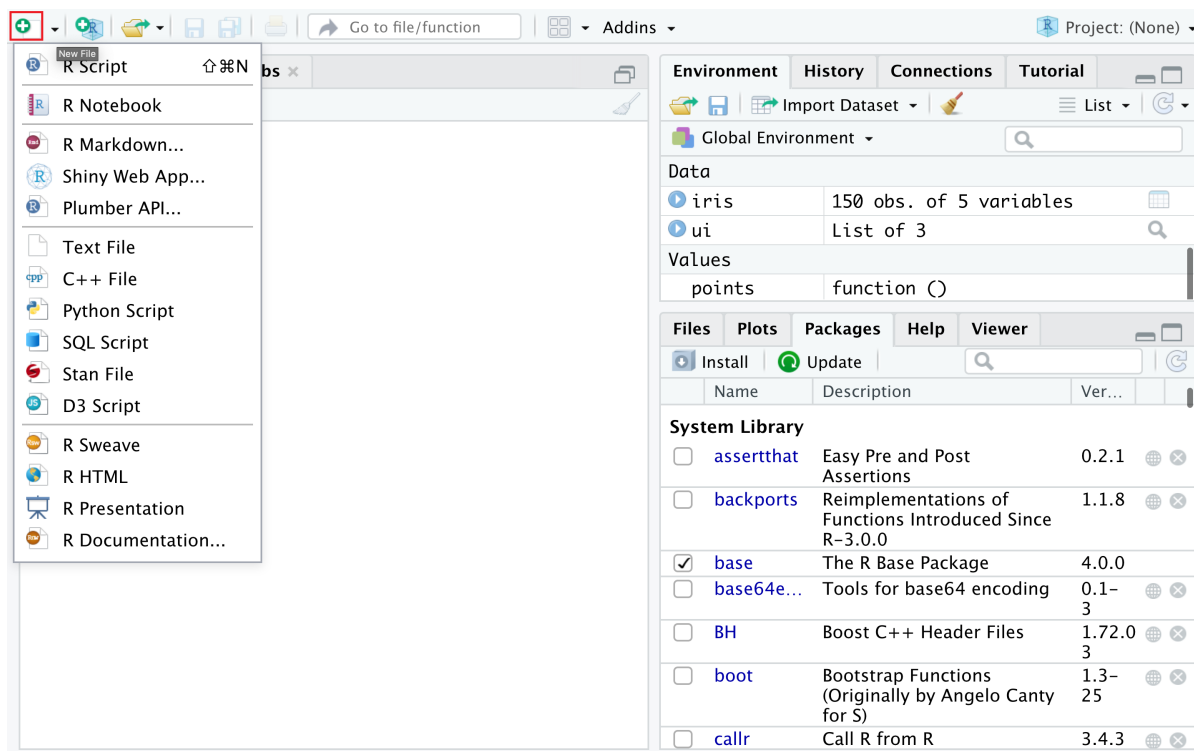
# Skills Network

## 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 'Addins' menu is open. The main editor window, titled 'Untitled1', is empty and has a red border. Below it is the 'Console' pane with a prompt '>'. On the right, the 'Environment' pane shows the 'Global Environment' with variables 'iris' (150 obs. of 5 variables) and 'ui' (List of 3). The 'System Library' pane lists installed packages like 'assertthat', 'backports', 'base', 'base64e...', 'BH', 'boot', and 'callr'.

**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 '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 lists installed packages like 'assertthat', 'backports', 'base', 'base64e...', 'BH', 'boot', and 'callr'.

**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 environment with the 'iris' dataset loaded. The main window displays a data view of the first 7 rows of the dataset. The columns are Sepal.Length, Sepal.Width, Petal.Length, Petal.Width, and Species. The console shows the commands used to load and view the data.

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
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	

Showing 1 to 7 of 150 entries, 5 total columns

Console:

```
> library(datasets)
> data(iris)
> View(iris)
> |
```

Environment:

- Global Environment
- Data:
  - iris: 150 obs. of 5 variables
  - ui: List of 3
- Values:
  - points: function ()

System Library:

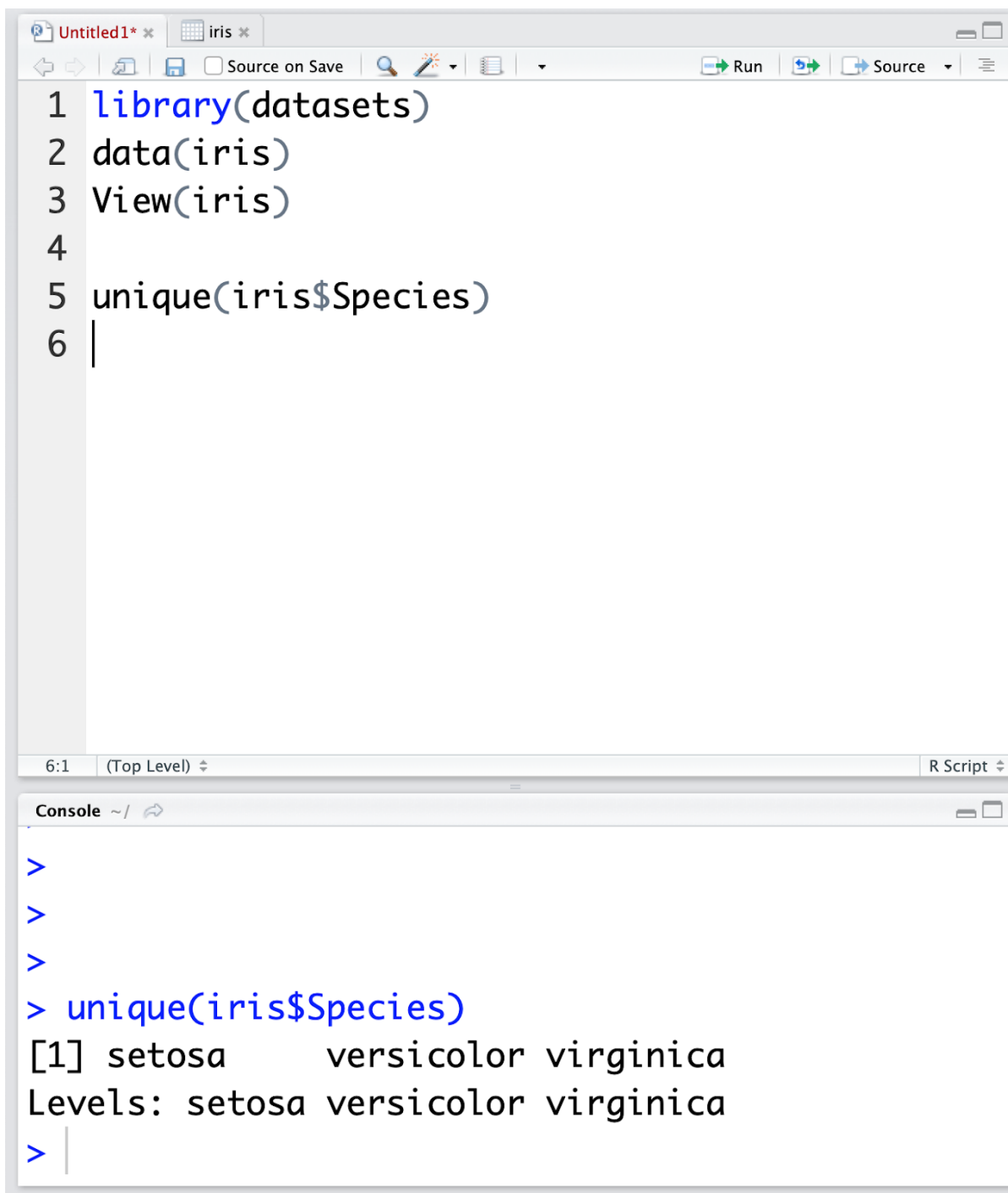
Name	Description	Ver...
<input type="checkbox"/> assertthat	Easy Pre and Post Assertions	0.2.1
<input type="checkbox"/> backports	Reimplementations of Functions Introduced Since R-3.0.0	1.1.8
<input checked="" type="checkbox"/> base	The R Base Package	4.0.0
<input type="checkbox"/> base64e...	Tools for base64 encoding	0.1-3
<input type="checkbox"/> BH	Boost C++ Header Files	1.72.0-3
<input type="checkbox"/> boot	Bootstrap Functions (Originally by Angelo Canty for S)	1.3-25
<input type="checkbox"/> callr	Call R from R	3.4.3

**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!



The screenshot shows an RStudio window with two panes. The top pane is the 'Source' editor, showing an R script with the following code:

```
1 library(datasets)
2 data(iris)
3 View(iris)
4
5 unique(iris$Species)
6 |
```

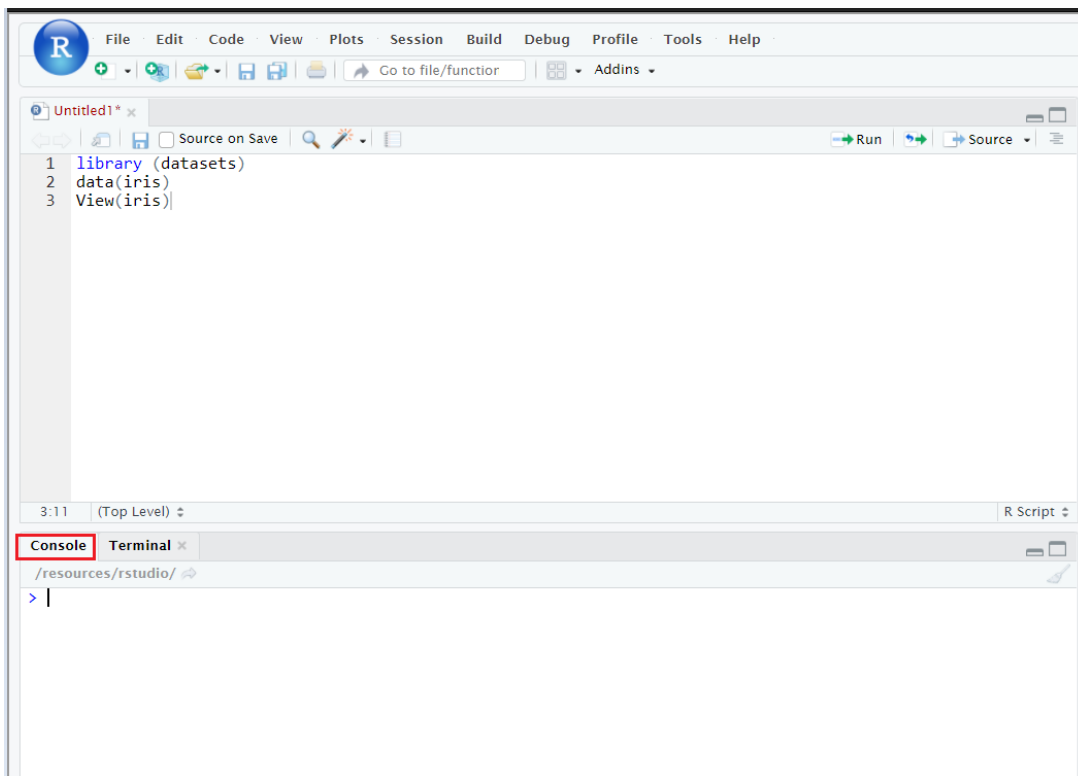
The bottom pane is the 'Console', showing the output of the executed command:

```
>
>
>
> unique(iris$Species)
[1] setosa      versicolor virginica
Levels: setosa versicolor virginica
> |
```

The console output indicates that there are three distinct species in the iris dataset: setosa, versicolor, and virginica.

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.

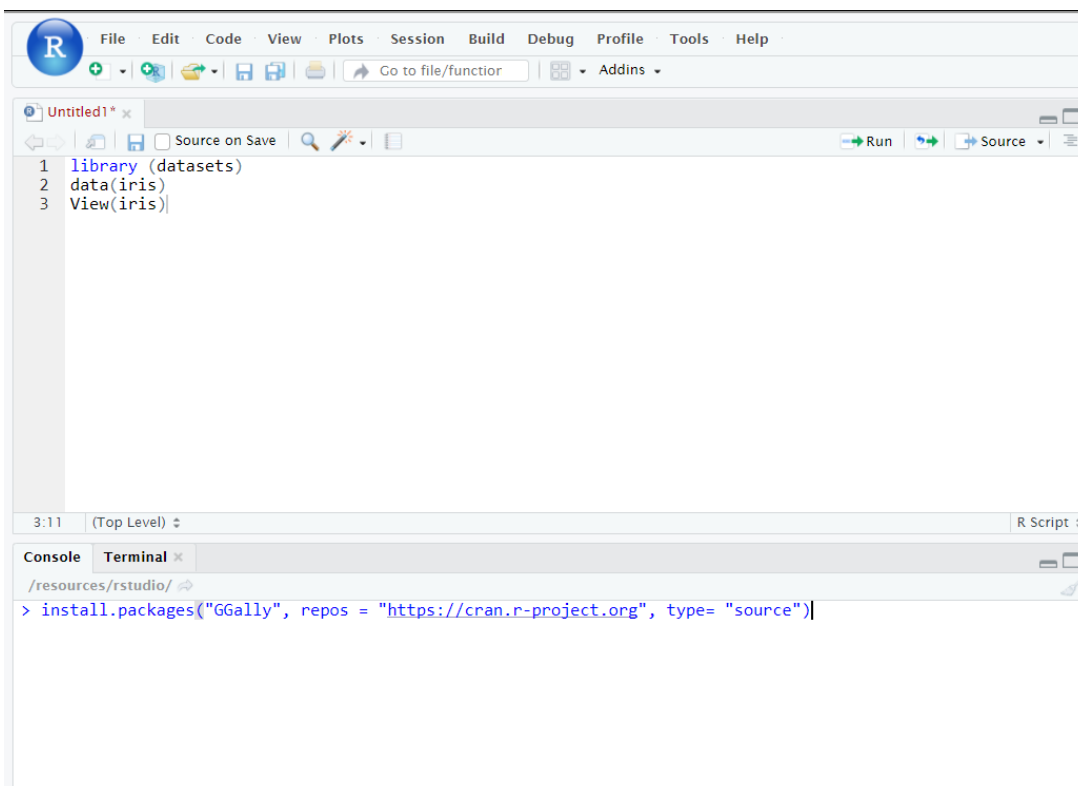


**Step 6** - Run the following command in the console.

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)

Romeo

## 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

© IBM Corporation 2020. All rights reserved.