# Science des données I : module 2

## Travaux pratiques


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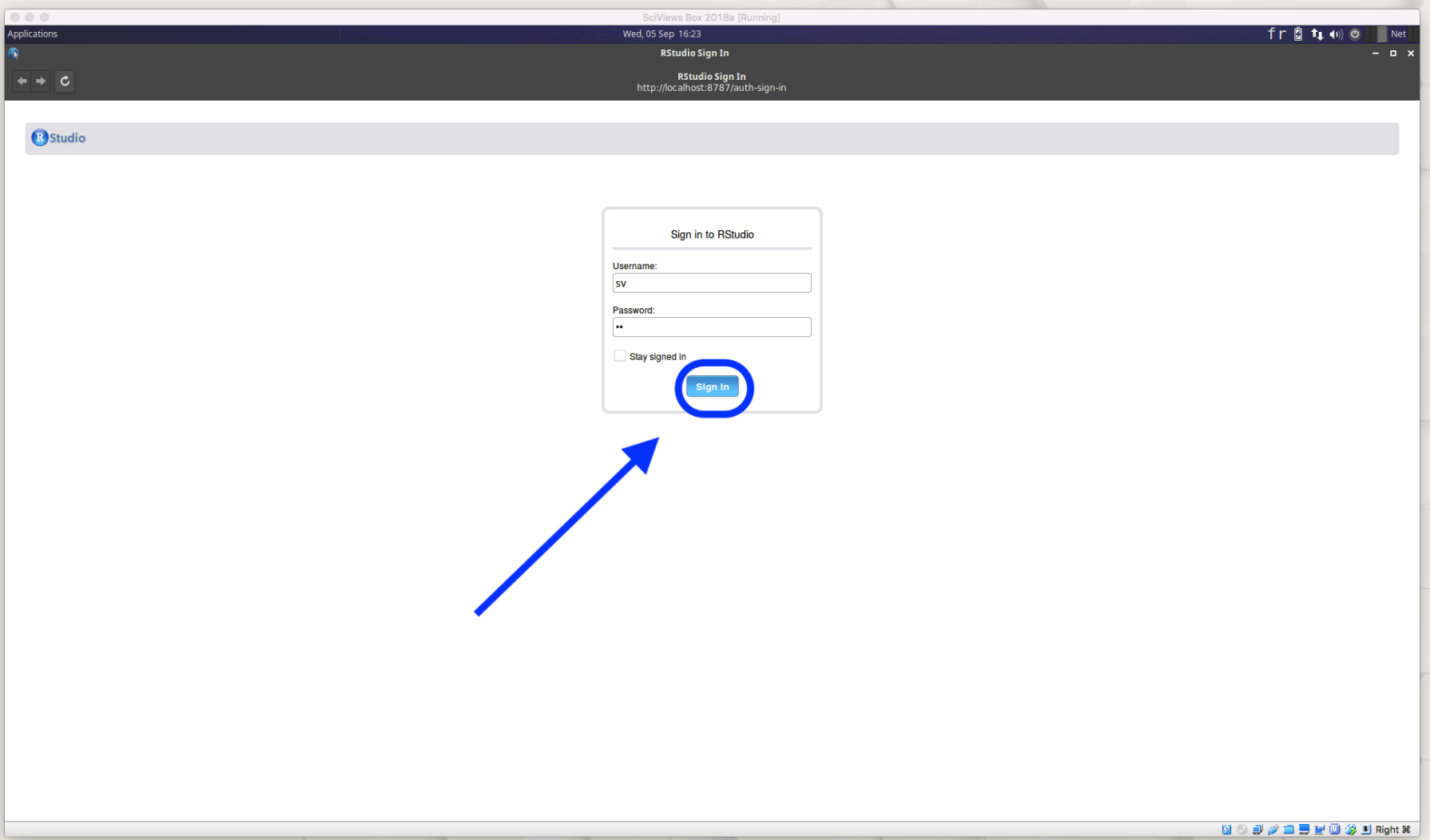
# Découverte du logiciel R


SciViews Box 2018a [Running]
Applications
Wed, 05 Sep 16:23
Net
RStudio Sign In
RStudio Sign In
http://localhost:8787/auth-sign-in
RStudio
Sign in to RStudio
Username:
sv
Password:
Stay signed in
Sign In
Right ⌘

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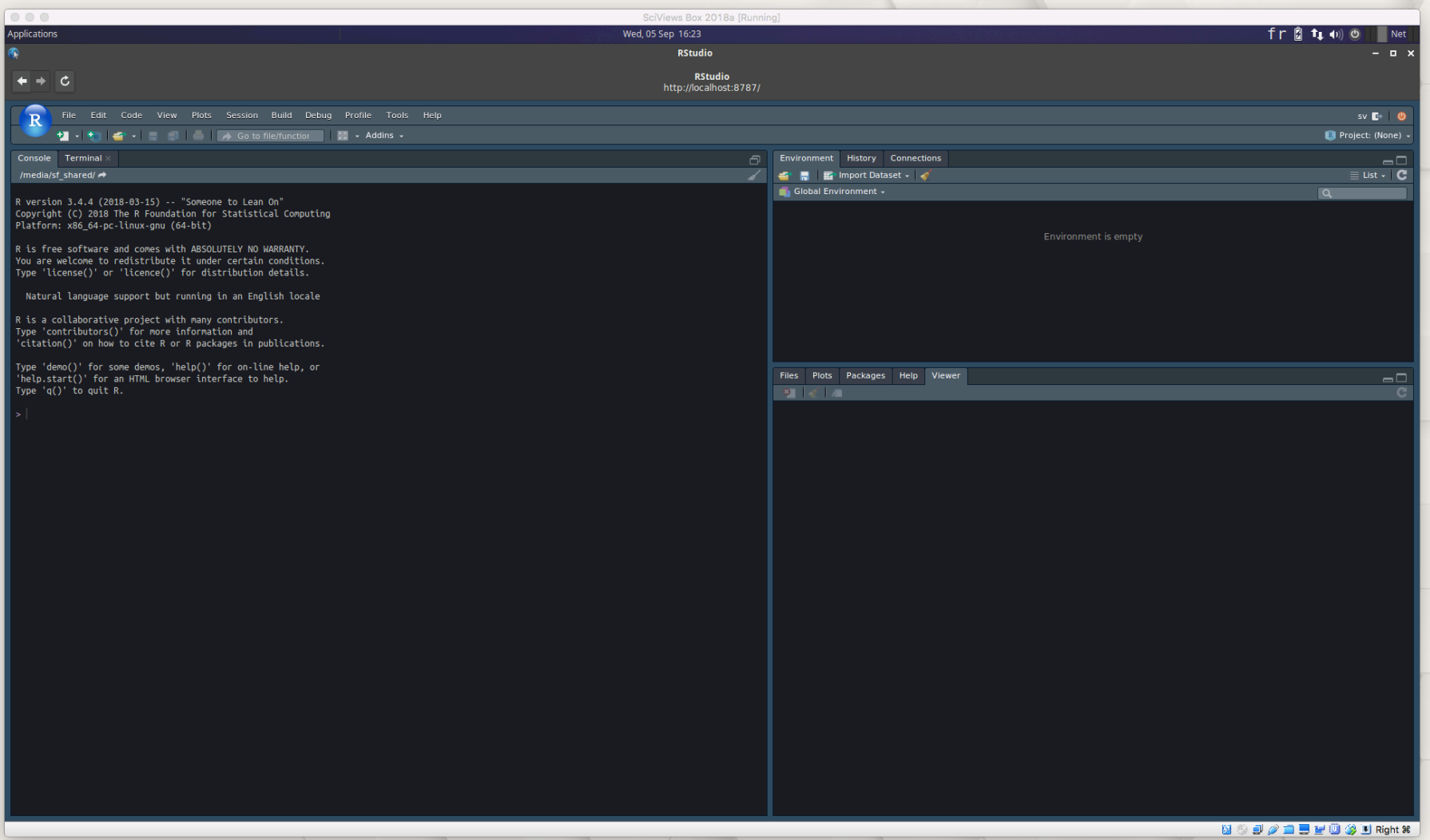
SciViews Box 2018a [Running]
Applications
Wed, 05 Sep 16:23
Net
RStudio
RStudio
http://localhost:8787/
File Edit Code View Plots Session Build Debug Profile Tools Help
sv
Go to file/function
Addins
Project: (None)
Console
Terminal
/media/sf_shared/
R version 3.4.4 (2018-03-15) -- "Someone to Lean On"
Copyright (C) 2018 The R Foundation for Statistical Computing
Platform: x86_64-pc-linux-gnu (64-bit)
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
Natural language support but running in an English locale
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.
>
Environment
History
Connections
Import Dataset
List
Global Environment
Environment is empty
Files
Plots
Packages
Help
Viewer
Right ⌘

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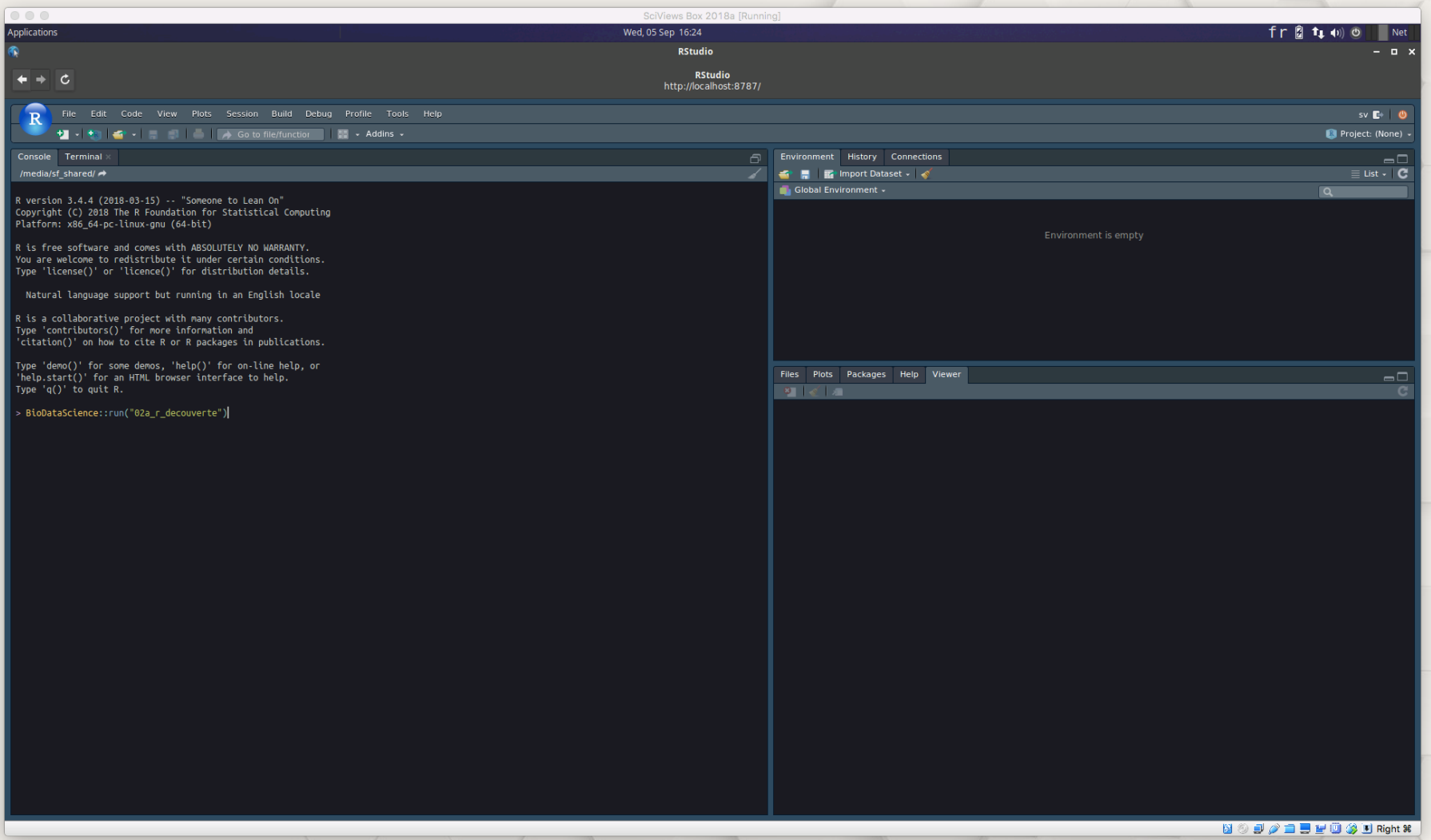
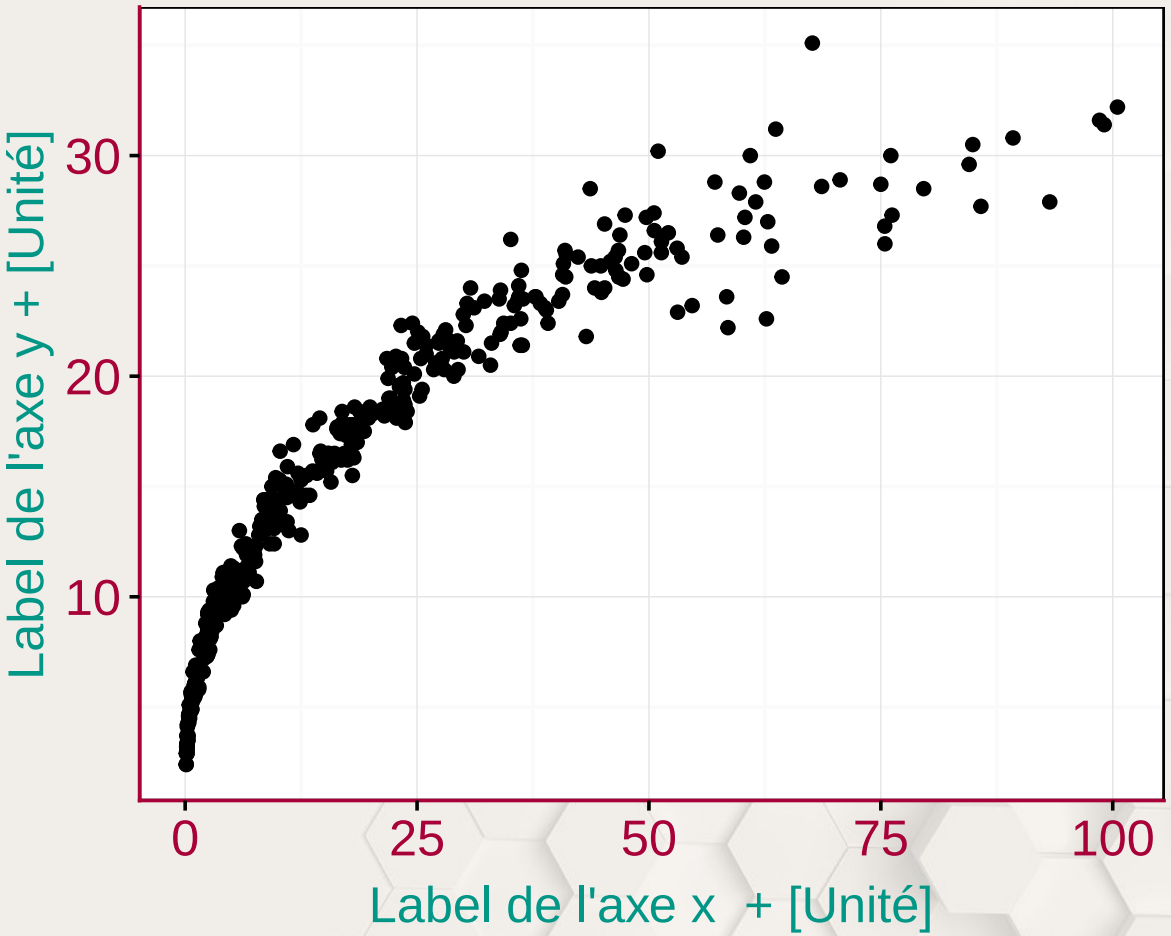



Insérez les instructions suivantes dans la console R

```
BioDataScience::run("02a_r_decouverte")
```

# Réalisation de nuage de points




**Les éléments indispensables :**

- Les axes avec les graduations (en rouge)
- les labels et les unités des axes (en bleu)

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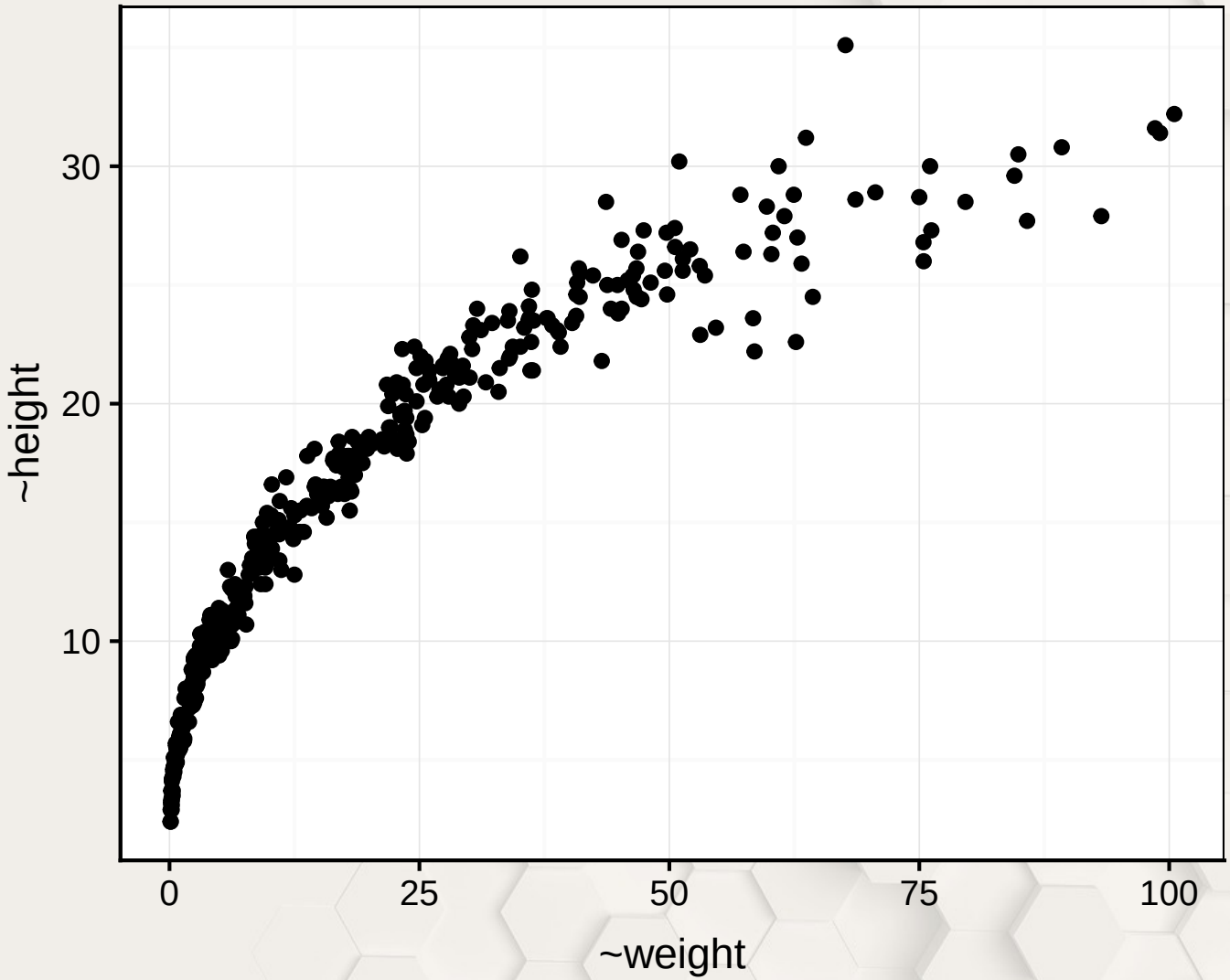
```
chart(ub, formula = height ~ weight) +
  geom_point()
```

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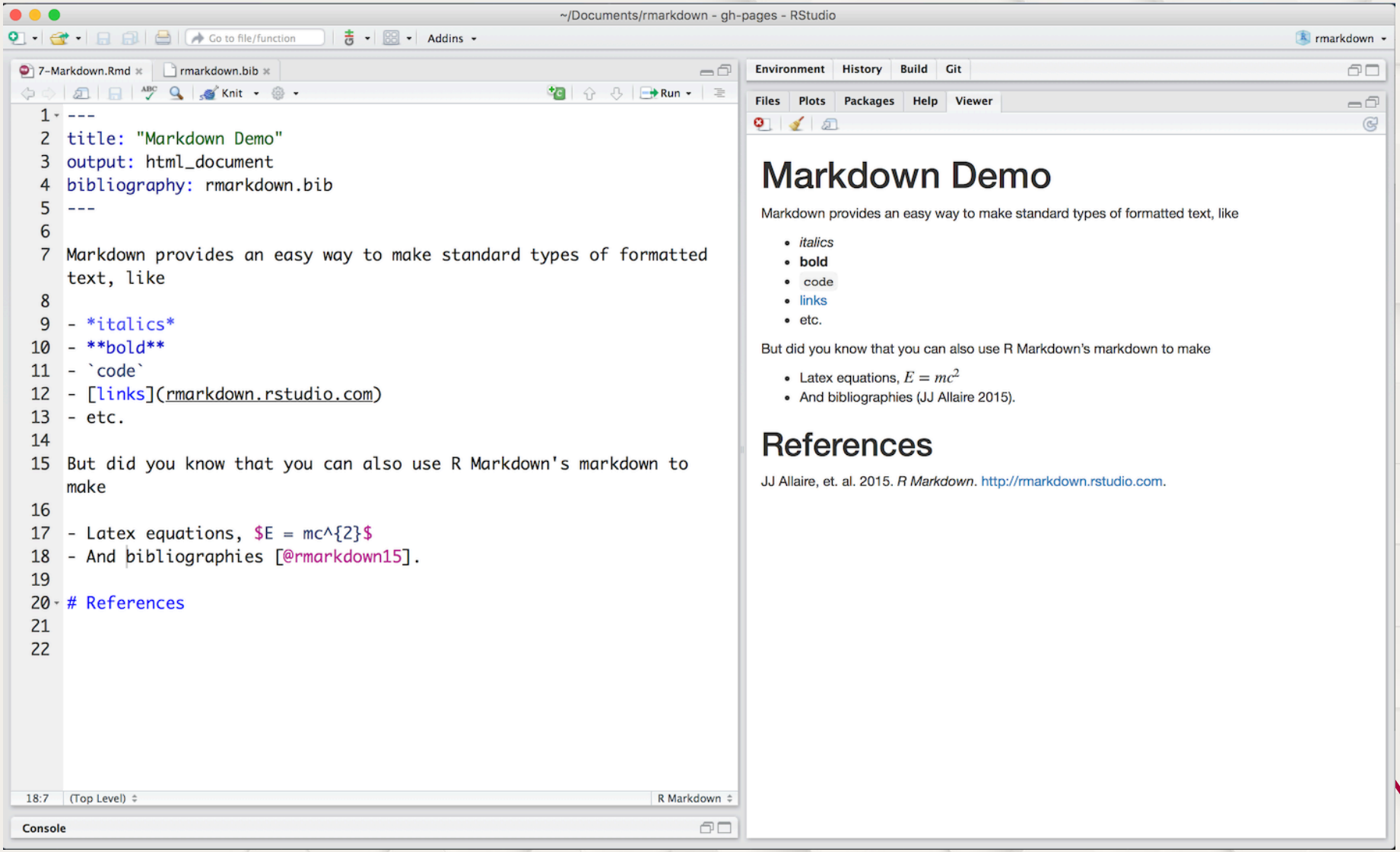
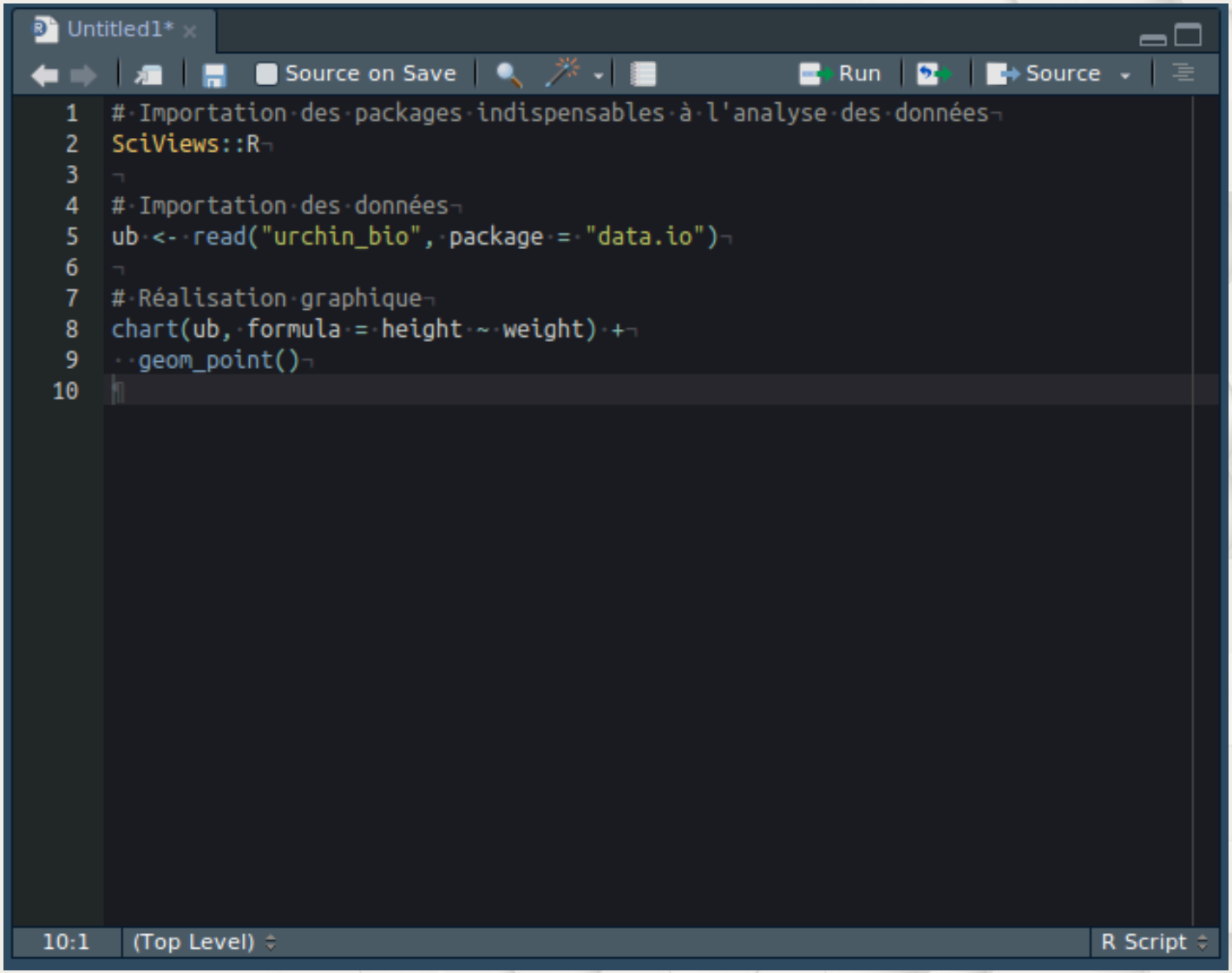
# Utilisation de R Markdown

**Markdown** : language très simples



## **R** : suite d'instructions

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```
---
title: "Example"
author: "John Doe"
date: "21 September 2016"
output: pdf_document
---

## R Markdown

This is an R Markdown document. Markdown is a simple formatting
syntax for authoring HTML, PDF, and MS Word documents. For more
details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated
that includes both content as well as the output of any
embedded R code chunks within the document. You can embed an R
code chunk like this:

```{r cars}
summary(cars)
```

## Including Plots

You can also embed plots, for example:

```{r pressure, echo=FALSE}
plot(pressure)
```

Note that the `echo = FALSE` parameter was added to the code
chunk to prevent printing of the R code that generated the
plot.
```

## Description

- Préambule (Rouge)
- Markdown (Bleu)
- Chunks, R code (Vert)
- Markdown (Bleu)
- Chunks, R code (Vert)
- Markdown (Bleu)

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# Comparaison de workflow

**Excel - Word**

- biometry_2014_ew
- biometry_2016_ew

**R Markdown**


- biometry_2014
- biometry_2016

Quel format d'analyse vous semble le plus approprié dans la recherche scientifique et collaborative ?

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