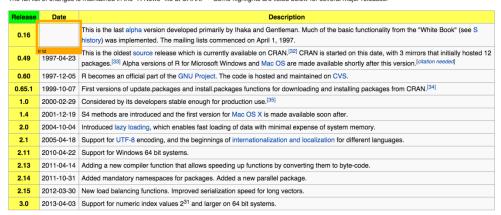
Chapter 1: Acquiring Data for Your Project

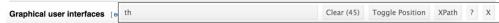


Milestones [edit]

The full list of changes is maintained in the "R News" file at CRAN. [31] Some highlights are listed below for several major releases. [citation needed]



Interfaces [edit]



Milestones [edit]

The full list of changes is maintained in the "R News" file at CRAN. [31] Some highlights are listed below for several major releases. [citation needed]

Release	Date	Description										
0.16		his is the last alpha version developed primarily by Ihaka and Gentleman. Much of the basic functionality from the "White Book" (see Sistory) was implemented. The mailing lists commenced on April 1, 1997.										
0.49	1997-04-23	nis is the oldest source release which is currently available on CHAIN. Ser CHAIN is started on this date, with 3 mirrors that initially nosted 12 ackages. [33] Alpha versions of R for Microsoft Windows and Mac OS are made available shortly after this version. [citation needed]										
0.60	1997-12-05	ecomes an official part of the GNU Project. The code is hosted and maintained on CVS.										
0.65.1	1999-10-07	irst versions of update.packages and install.packages functions for downloading and installing packages from CRAN.[34]										
1.0	2000-02-29	2-29 Considered by its developers stable enough for production use. [35]										
1.4	2001-12-19	S4 methods are introduced and the first version for Mac OS X is made available soon after.										
2.0	2004-10-04	ntroduced lazy loading, which enables fast loading of data with minimal expense of system memory.										
2.1	2005-04-18	5-04-18 Support for UTF-8 encoding, and the beginnings of internationalization and localization for different languages.										
2.11	2010-04-22 Support for Windows 64 bit systems.											
2.13	2011-04-14	dding a new compiler function that allows speeding up functions by converting them to byte-code.										
2.14	2011-10-31	dded mandatory namespaces for packages. Added a new parallel package.										
2.15	2012-03-30	lew load balancing functions. Improved serialization speed for long vectors.										
3.0	2013-04-03	upport for numeric index values 2 ³¹ and larger on 64 bit systems.										
Interfa	ices [edit]	th:nth-child(1) Clear (43) Toggle Position XPath ? X										

td , th	Clear (134)	Toggle Position	XPath	?	X	
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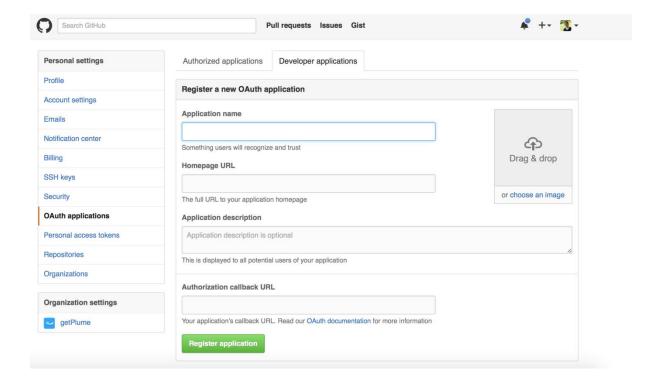
News Alerts



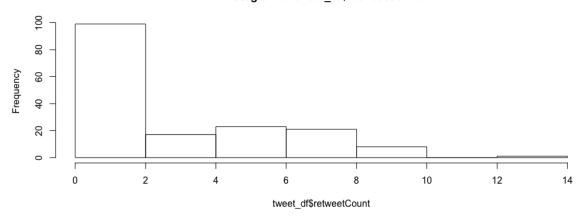
Stay Healthy



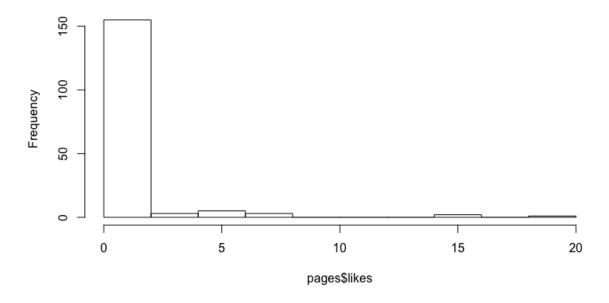
Shop Smarter

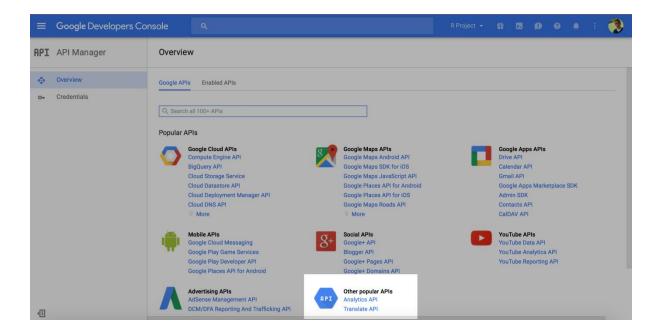


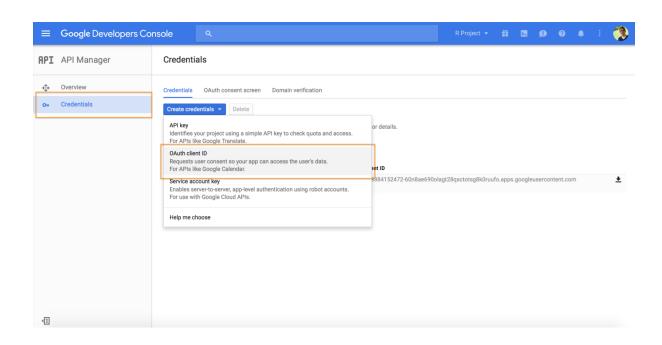
Histogram of tweet_df\$retweetCount



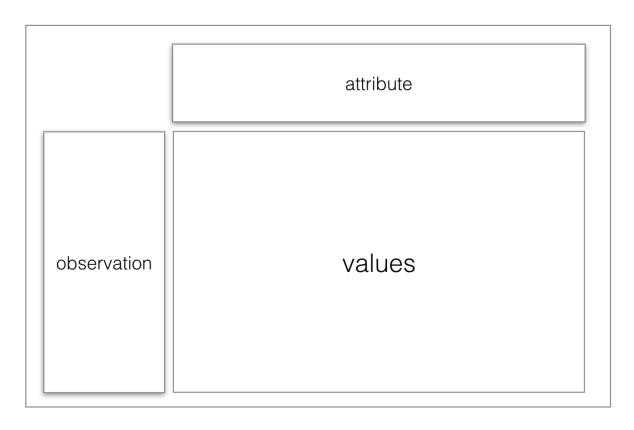
Histogram of pages\$likes

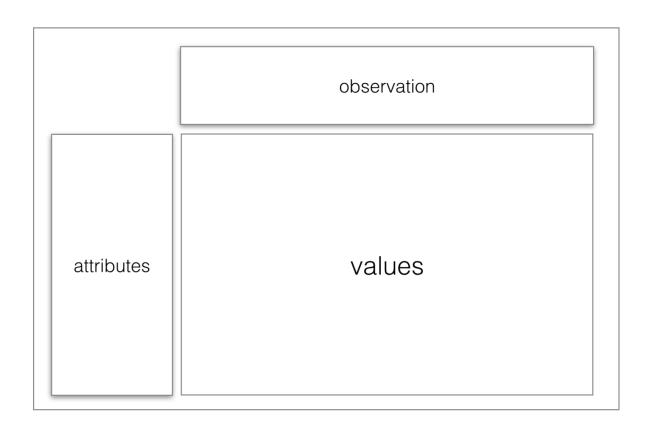






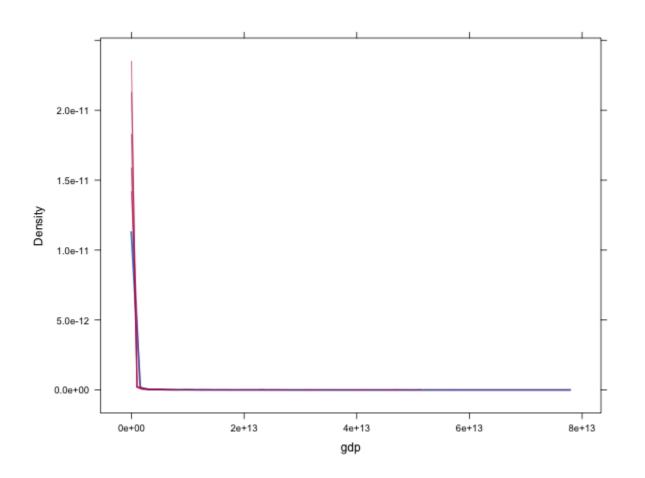
Chapter 2: Preparing for Analysis – Data Cleansing and Manipulation





```
year gdp Country Name Country Code Indicator Name Indicator Code
10379
                            0
                                         0
                                                                               4
3757
                            0
                                                         0
                                                                         0
         1
              0
                                         0
                                                                               5
                                                     14136
         0 3757
                        14136
                                     14136
                                                                    14136 60301
```

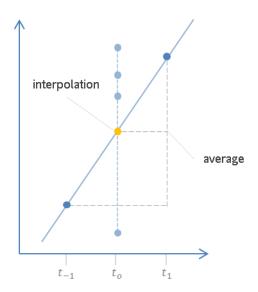
> md	<pre>> md.pattern(tidy_gdp_naomit)</pre>													
	year	gdp	Country Name	Country Code	Indicator Name	Indicator Code								
[1,]	1	1	0	0	0	0	4							
[2,]	0	0	10379	10379	10379	10379	41516							
[2,]	. 0	О	103/9	103/9	103/9	103/9	41516							



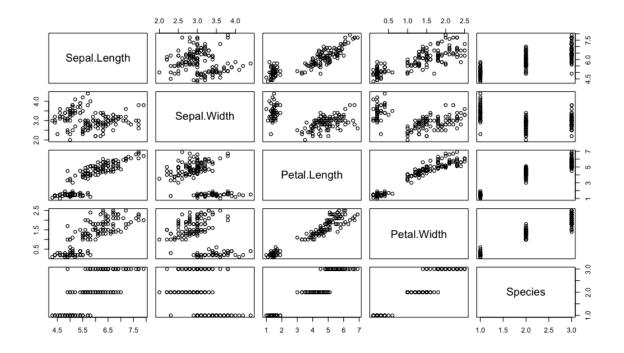
Testing	Filterii	Reporting			
test for duplicates	duplicated = true	remove	•X records were removed as		
simulate missing	new values column	substitute	outliers; •Y records were substituted since missing;		
spot incoherences	interpolate	substitute	• Z inchoerent values were substitued with;		
spot outliers	outlier = true	remove	• U interpolated values.		

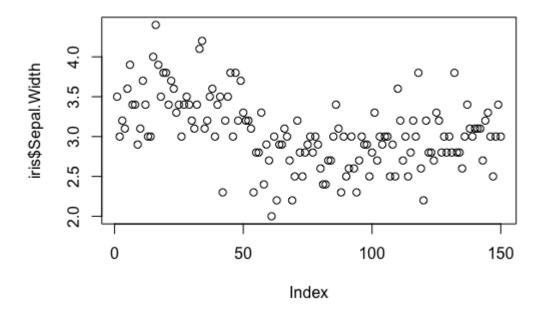
	alfa [‡]	beta	#
1	a		1
2	b		2
3	b		4

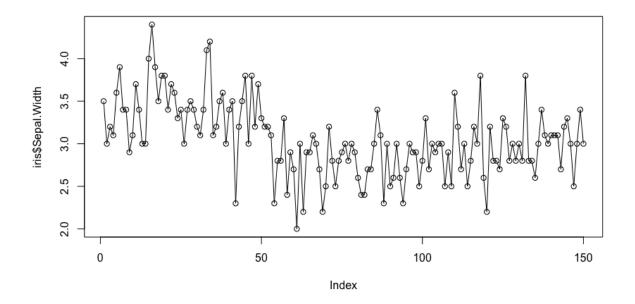
4 2		
	alfa [‡]	beta [‡]
1	a	1
2	b	2

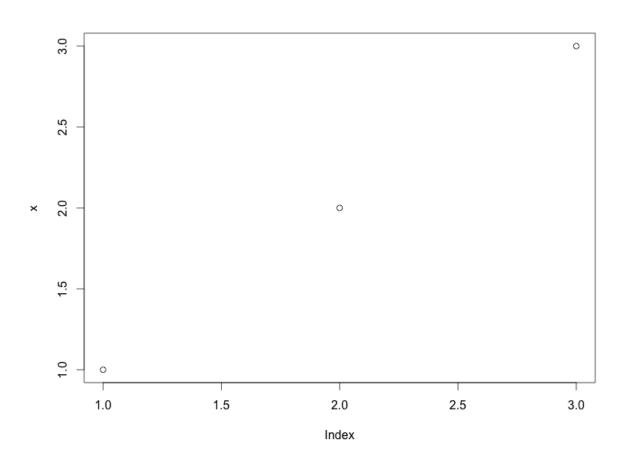


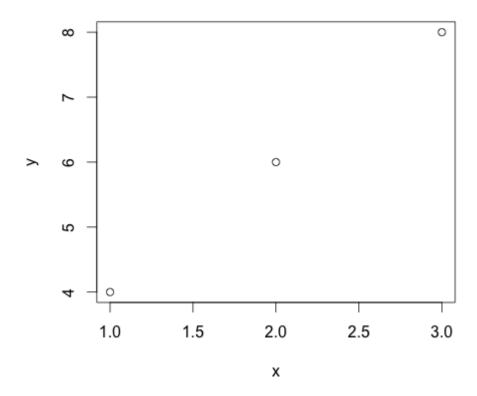
Chapter 3: Basic Visualization Techniques

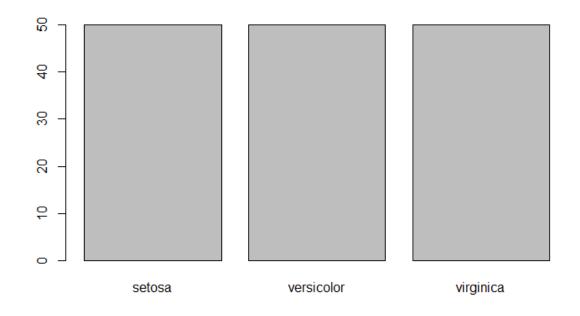


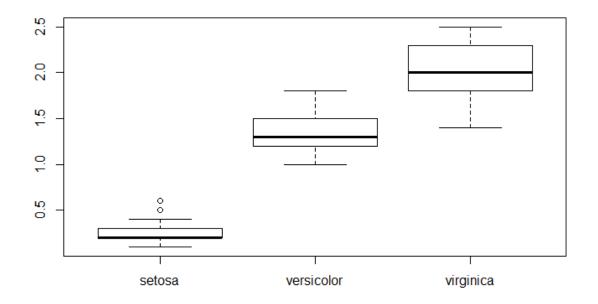


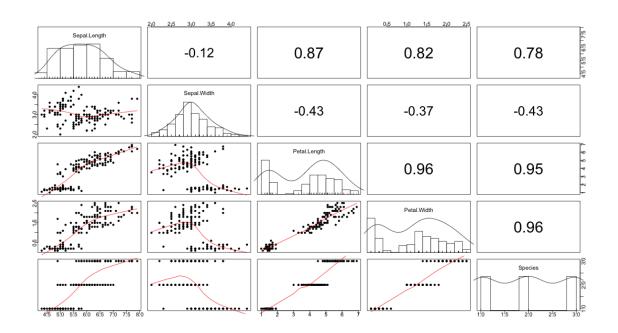


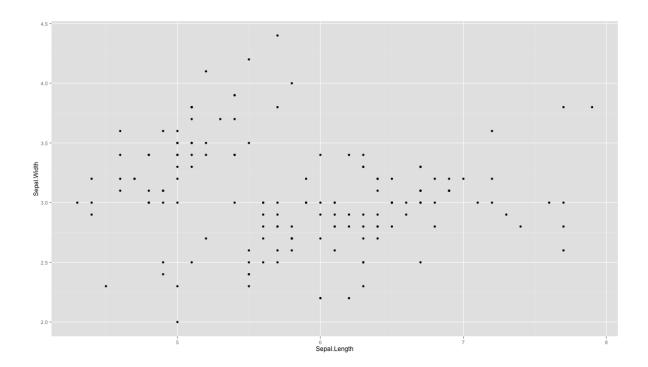




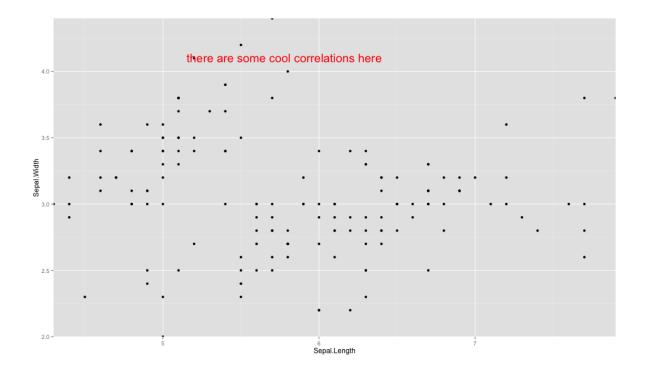


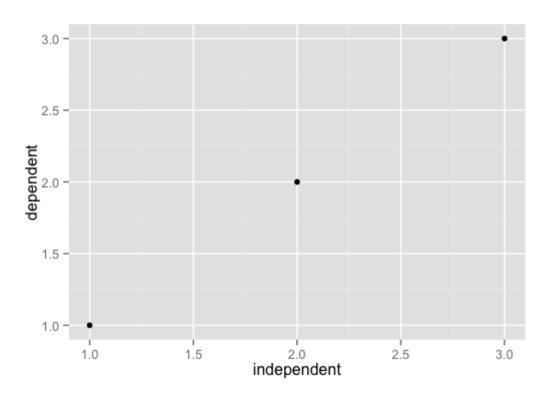


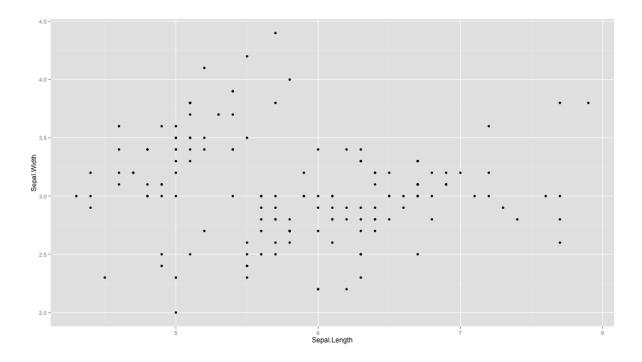


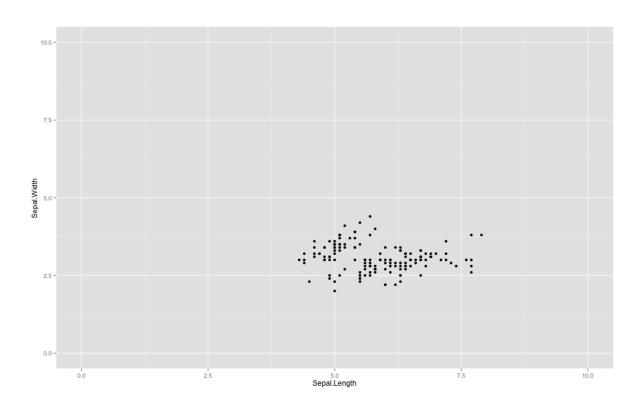


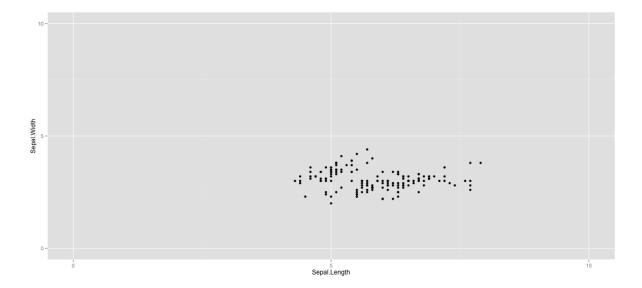


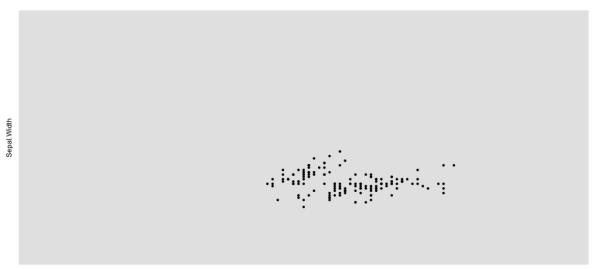




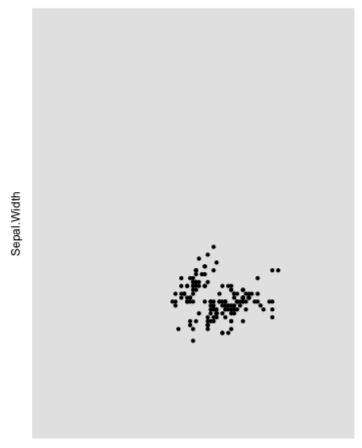




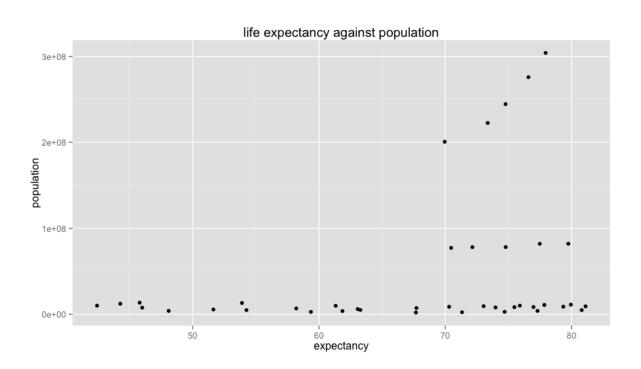


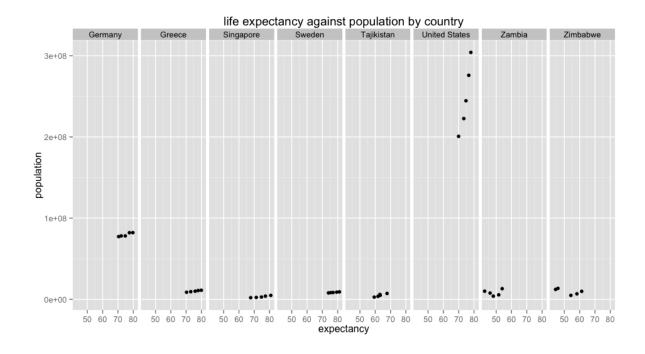


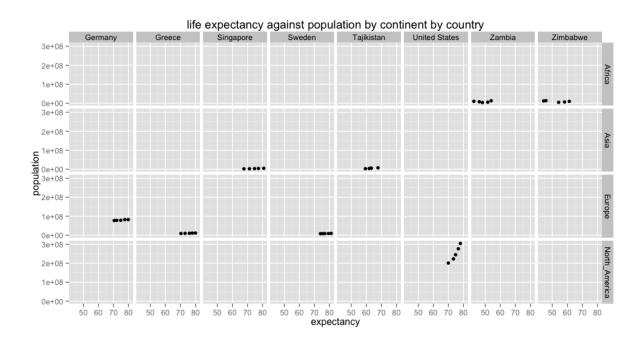
Sepal.Length

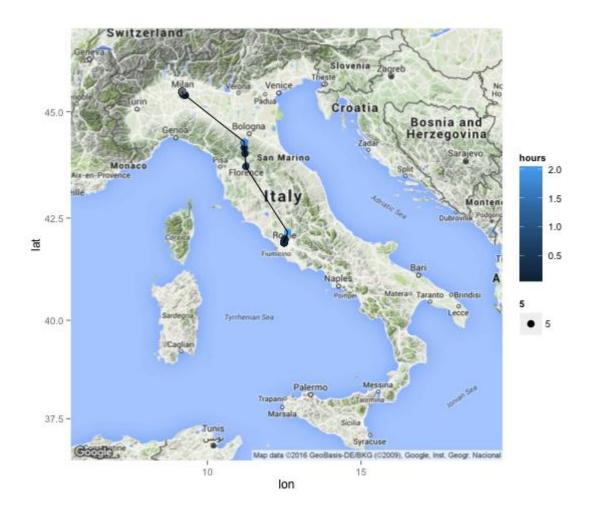


Sepal.Length



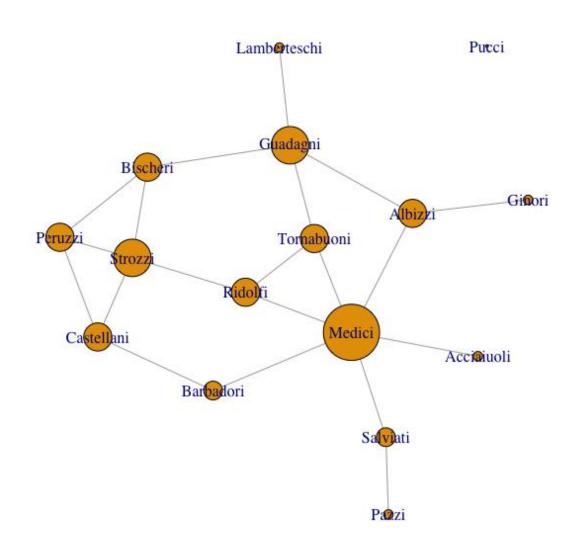




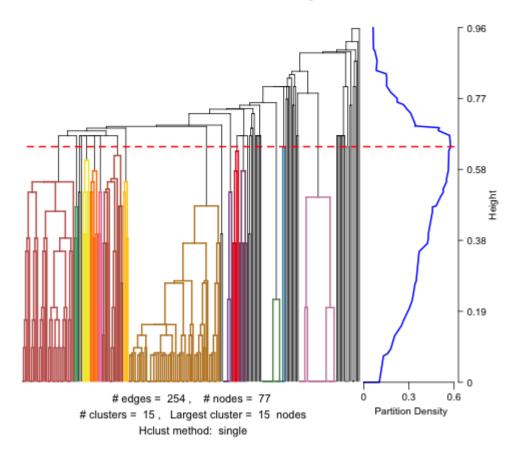


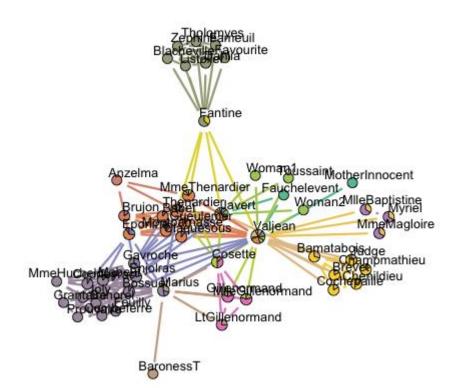


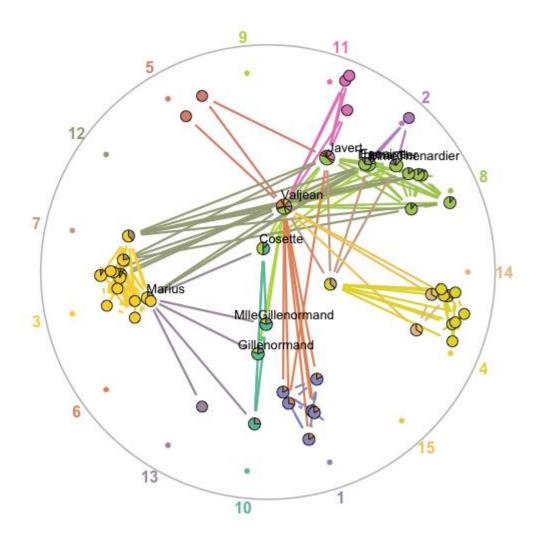
00 2	▽ Filter	Filter														
	Acciaiuoli [‡]	Albizzi [‡]	Barbadori [‡]	Bischeri [‡]	Castellani [‡]	Ginori [‡]	Guadagni [‡]	Lamberteschi [‡]	Medici [‡]	Pazzi [‡]	Peruzzi [‡]	Pucci [‡]	Ridolfi [‡]	Salviati [‡]	Strozzi [‡]	Tornabuoni [‡]
Acciaiuoli	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Albizzi	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0
Barbadori	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Bischeri	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Castellani	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0
Ginori	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guadagni	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Lamberteschi	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Medici	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1
Pazzi	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Peruzzi	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0
Pucci	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ridolfi	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Salviati	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Strozzi	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0
Tornabuoni	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0



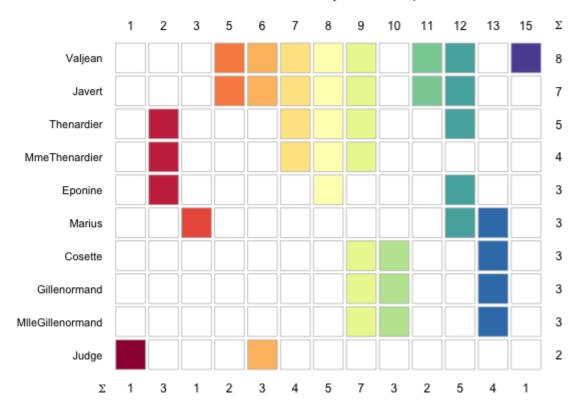
Link Communities Dendrogram





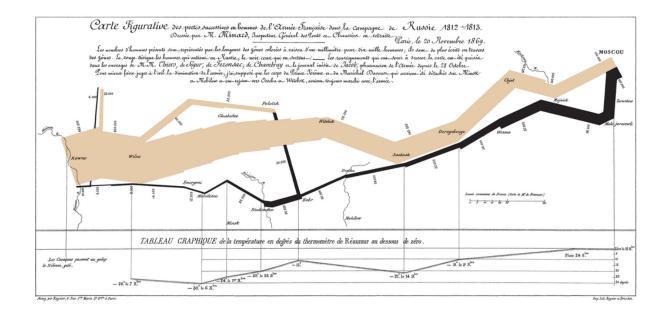


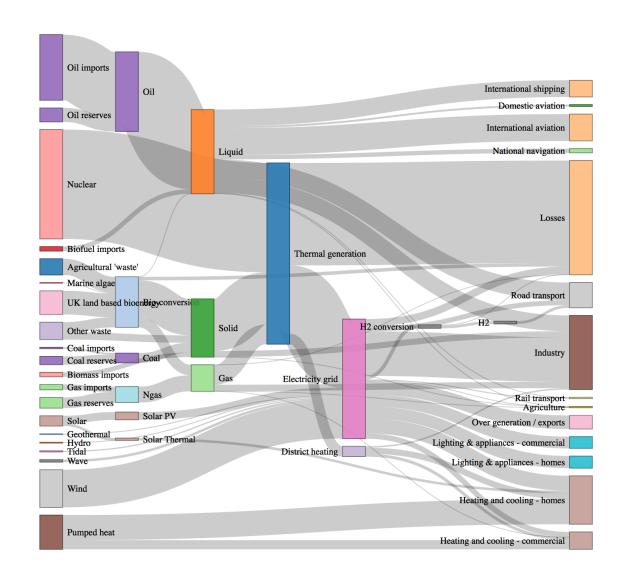
Community Membership

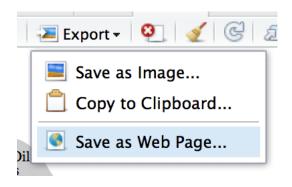


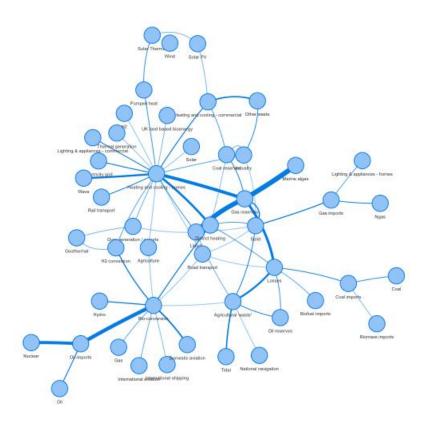
Chapter 4: Advanced and Interactive Visualization

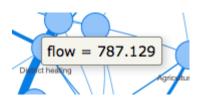


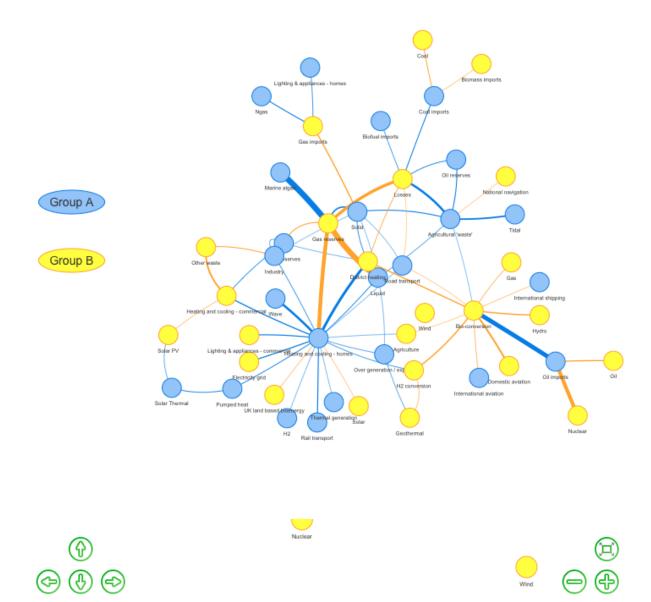


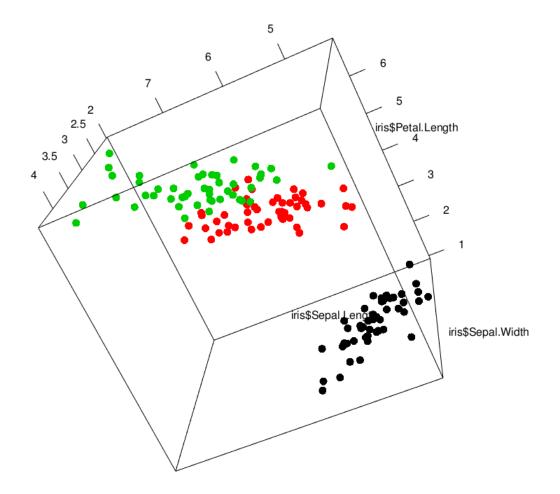


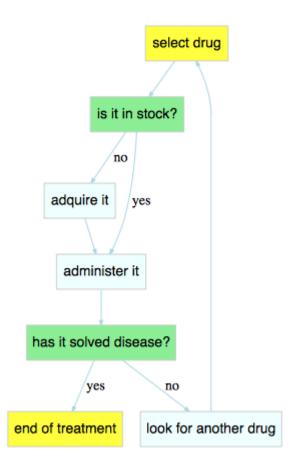


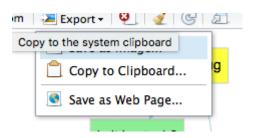


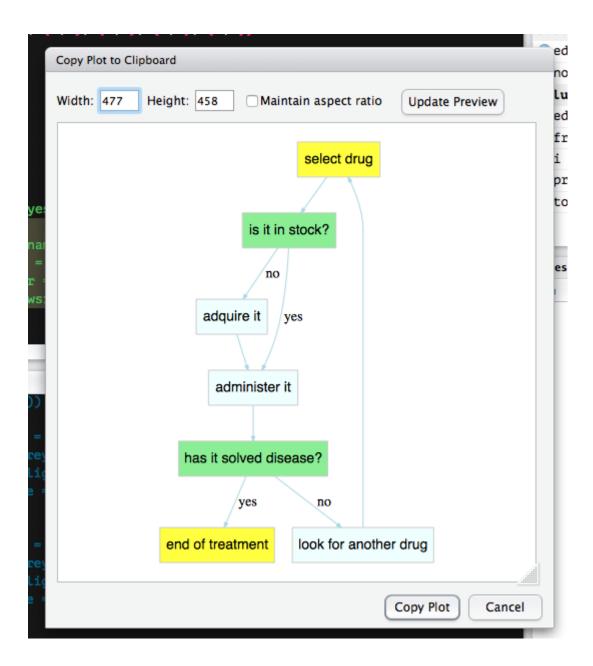




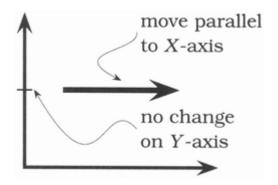


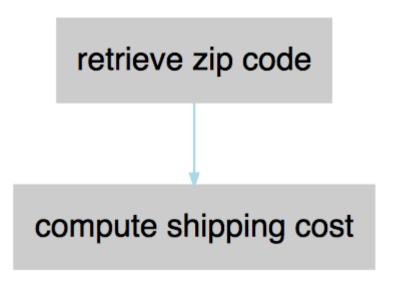






Chapter 5: Power Programming with R





- 2ip_retrievement.R
- Shipping_cost_retrievement.R

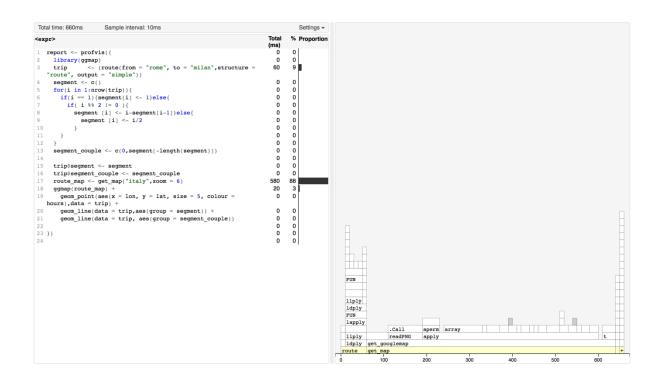
```
Functions

set_last_maintena... function (entity, value_to_set)

set_last_maintena... function (entity, value_to_set)

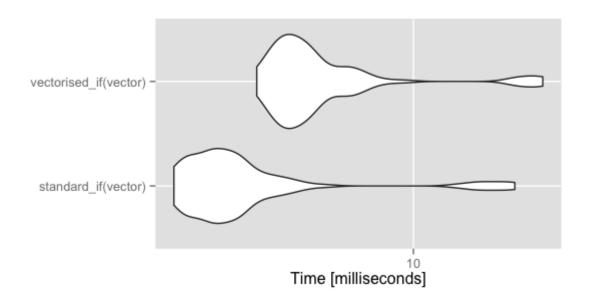
trucks function (plate = "XXNNNZZ", night_trips = TRUE...
```

```
volvo List of 3
night_trips : logi TRUE
kilometers : num 2000
last_maintenance: chr "17/01/2013"
attr(*, "class")= chr "trucks"
```

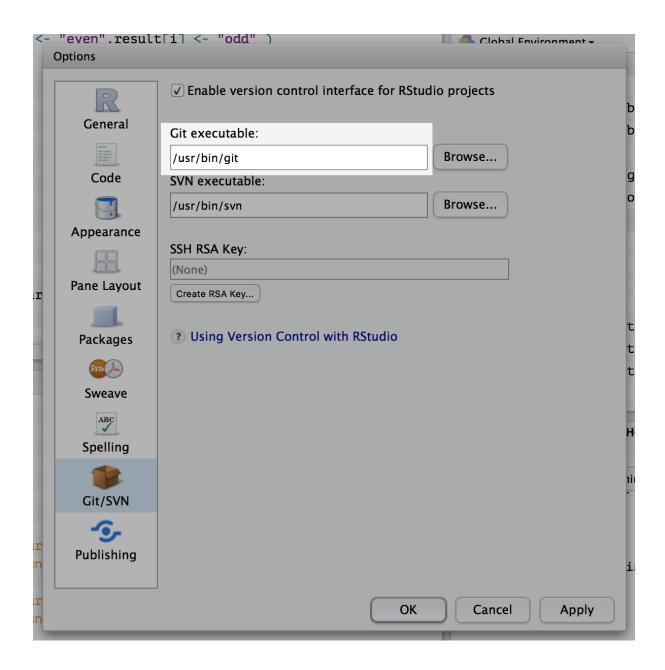


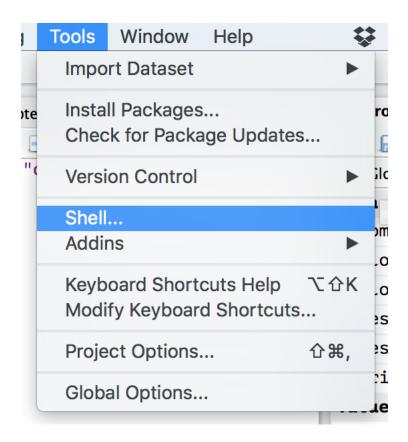


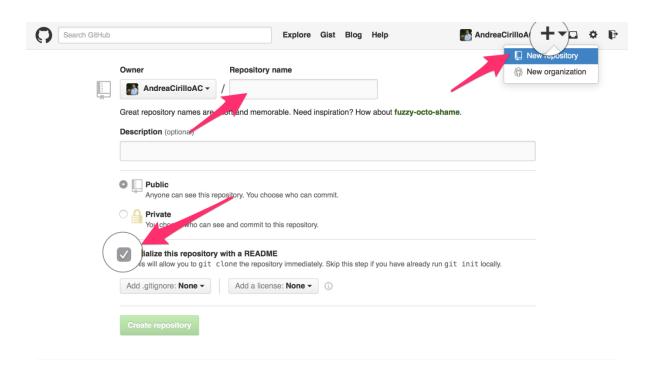




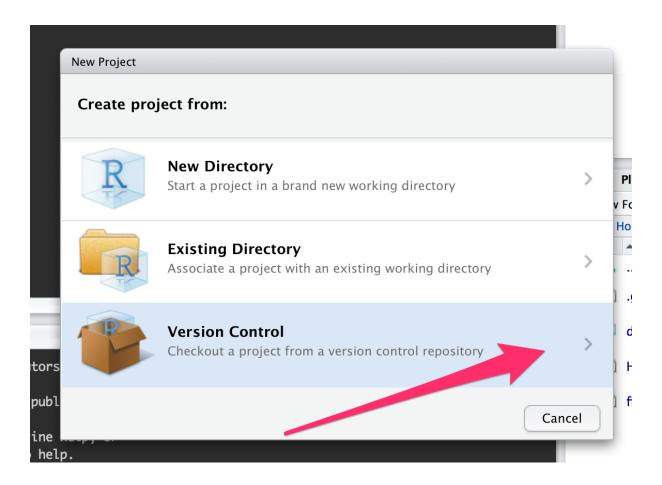
Tools Window Help **Import Dataset** Install Packages... ote Check for Package Updates... **Version Control** Shell... **Addins** Keyboard Shortcuts Help ℃企K Modify Keyboard Shortcuts... 仚器, Project Options... Global Options...

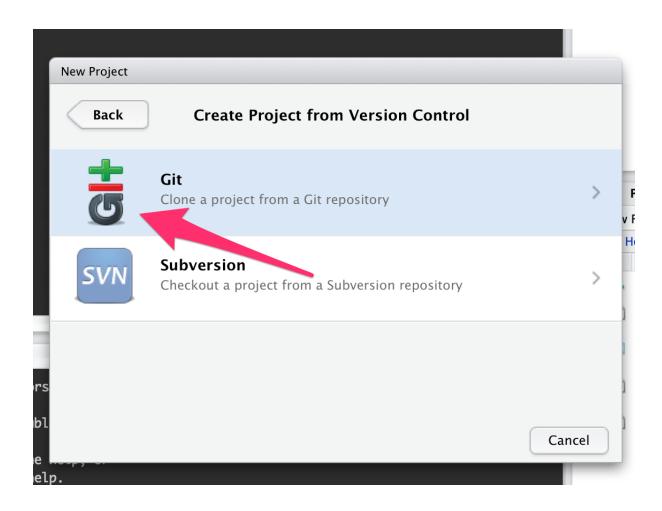


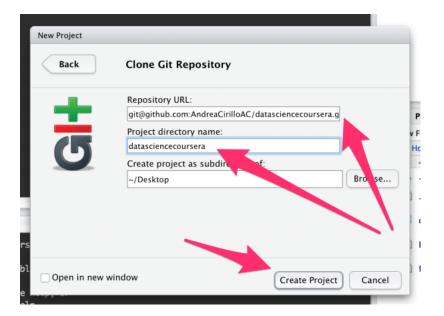




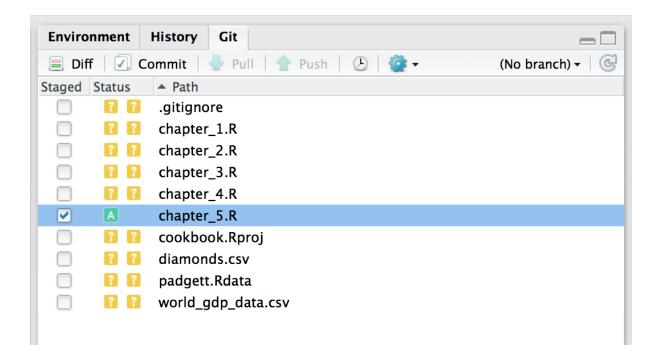












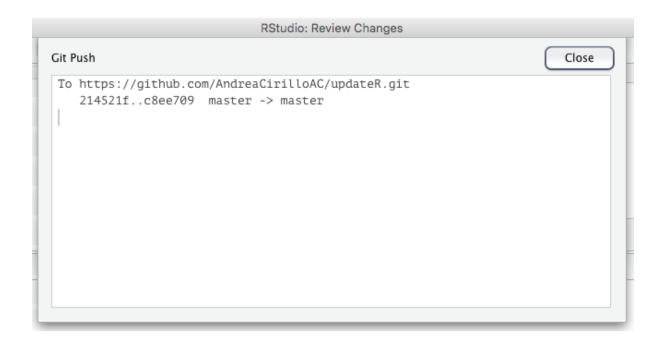
```
RStudio: Review Changes
Changes History (No branch) → 😅 🗹 Stage 👲 Revert 🔘 Ignore
                                                                                                                  🖖 Pull 👚 Push
Staged Status A Path
                                                                             Commit message
            .gitignore
      🔐 🔐 chapter_1.R
      🔐 🔐 chapter_2.R
     🔞 🔞 chapter_3.R
      1 chapter_4.R
            chapter_5.R
      🔞 🔞 cookbook.Rproj
      🔞 🔞 diamonds.csv
      🔞 👔 padgett.Rdata
                                                                              Amend previous commit
                                                                                                                        Commit
     🔞 🔝 world adp data.csv
Show • Staged Unstaged Context 5 line • Unstage All
      ee -0,0 +1,122 ee
                                                                                                                      Unstage chunk
    1 # writing modular code in Rstudio
   3 install.packages("Diagrammer")
    4 library(DiagrammeR)
   5 flow_nodes <- create_nodes(nodes = seq(1:2),</pre>
                                 label = c("retrieve zip code", "compute shipping cost"),
                                  style = "filled",
                                  shape = "rectanlge")
   9 flow_edges_couples <- create_edges(from = 1,to = 2)</pre>
  10 flow <- create_graph(flow_nodes,flow_edges_couples,
                           node_attrs = c("fontname = Helvetica
  11
                            color = grey80"),
edge_attrs = c("color = lightblue",
   12
   13
   14
                                           "arrowsize = 0.5"))
   15 render_graph(flow)
  16
   17 source("zip_retrievement.R",local = TRUE)
   18 source("shipping_cost_retrievement.R", local = TRUE)
   19 # avoiding duplication in R
   20 # implementing parallel computation in R with doparallel and snow packages
   22 install.packages("doParallel")
   23 install.packages("doSNOW")
   24 library(doParallel)
```

```
RStudio: Review Changes

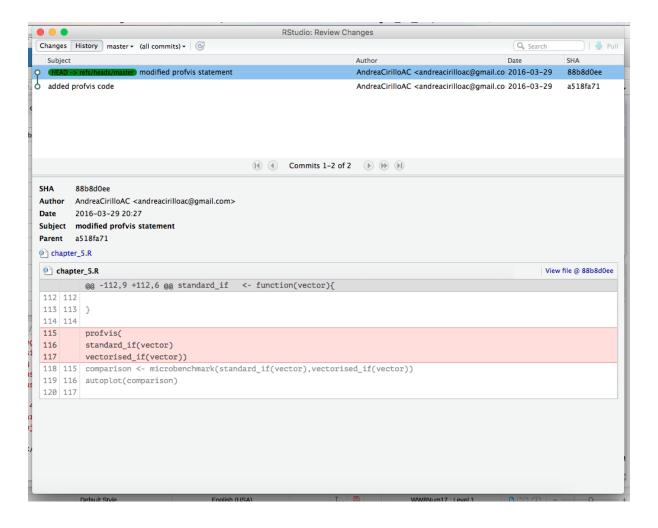
Git Commit

[master c8ee709] minor wording
1 file changed, 1 insertion(+), 1 deletion(-)
```



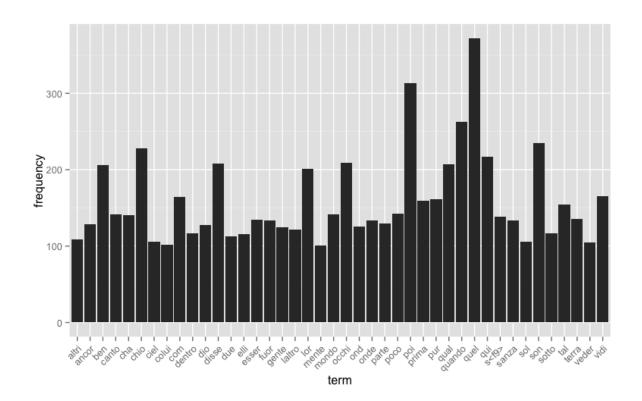




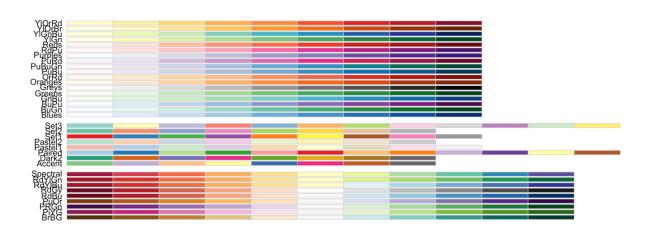


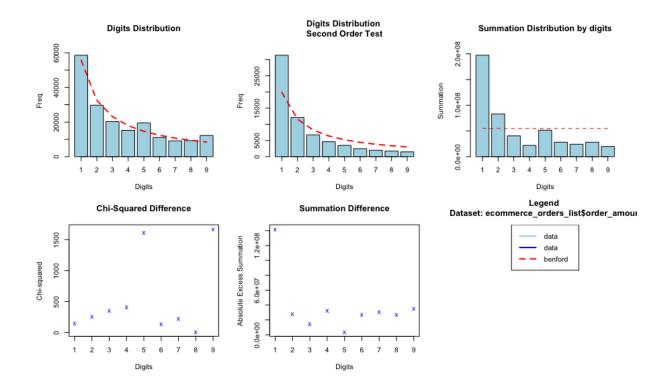
Chapter 6: Domain-specifi c Applications



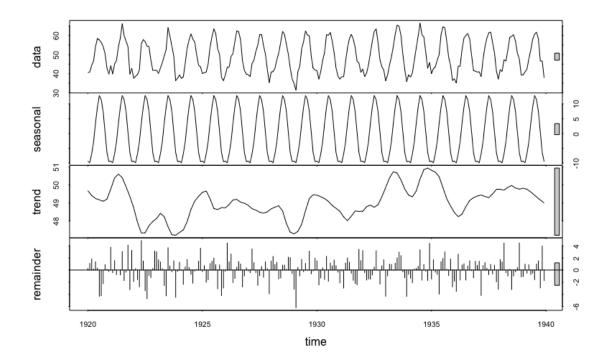


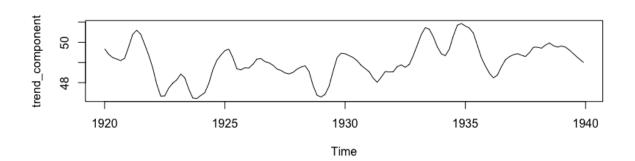




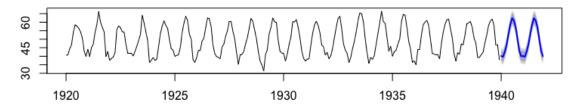


						p						
♦ ⇒ Æ ₹ Filter												
	1	2	3 ‡	4	5	6	7	8	9	10 ‡	11 ‡	12 ‡
elder_cohort	10567.00	9763.00	8327.00	8318.00	7108.00	6280.00	6279.0	5873.00	4986.0	3296.00	2986.00	1357.00
younger_cohort	25000.00	24500.00	24324.00	19500.00	15078.00	11879.00	10856.0	10543.00	10234.0	9678.00	8542.00	6321.00
women_cohort	19206.18	18502.02	17631.54	15021.72	11980.44	9805.86	9252.9	8864.64	8218.8	7005.96	6225.12	4146.12
men_cohort	16360.82	15760.98	15019.46	12796.28	10205.56	8353.14	7882.1	7551.36	7001.2	5968.04	5302.88	3531.88





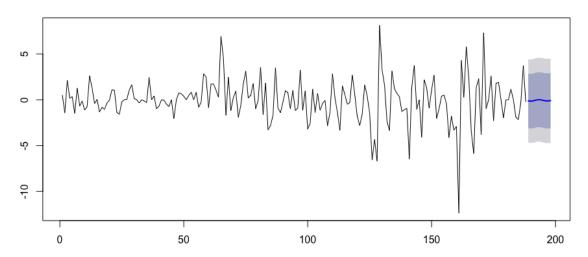






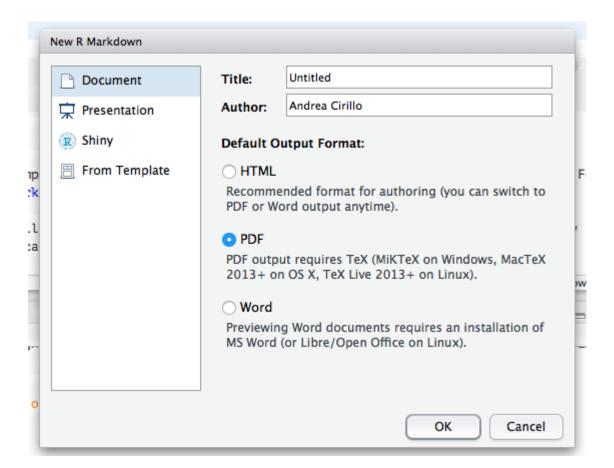


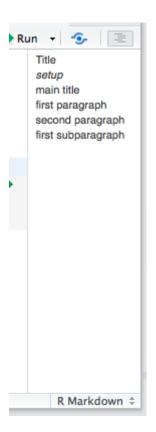
ARMA forecasts FCA returns

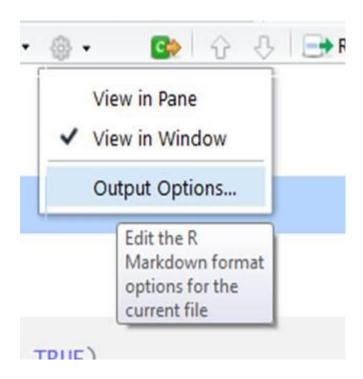


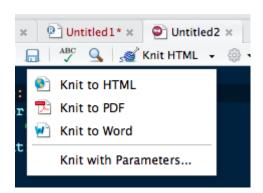


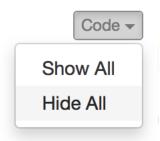
Chapter 7: Developing Static Reports

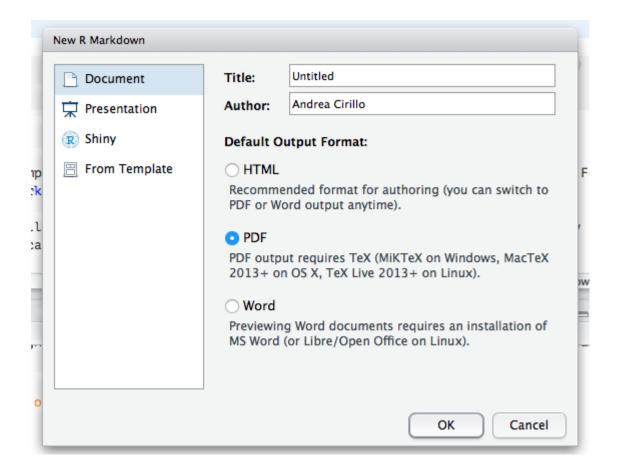




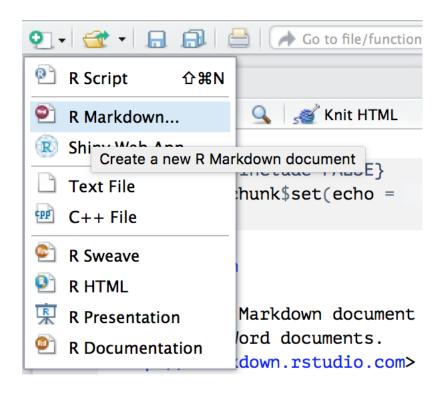


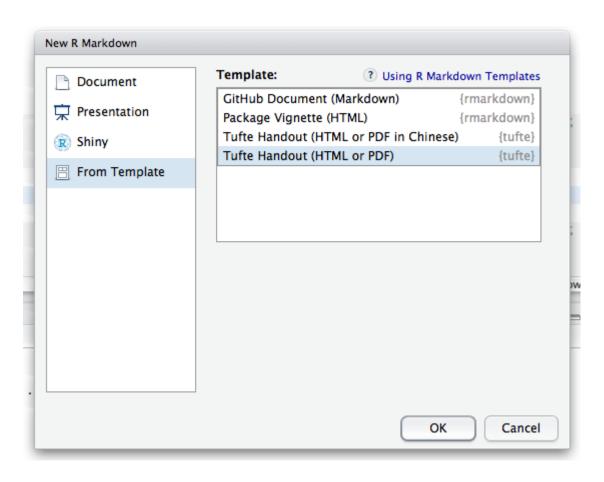


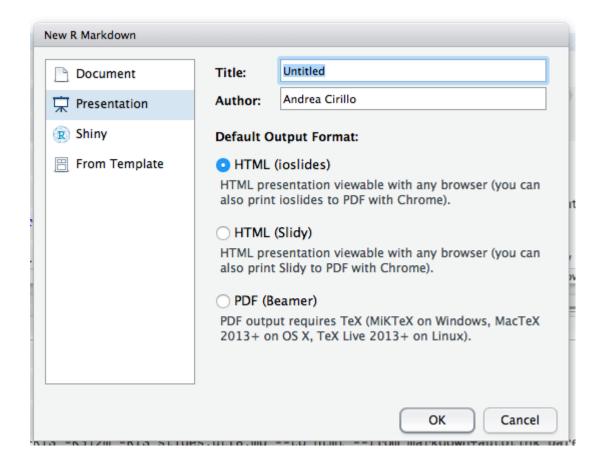




« Knit PDF →

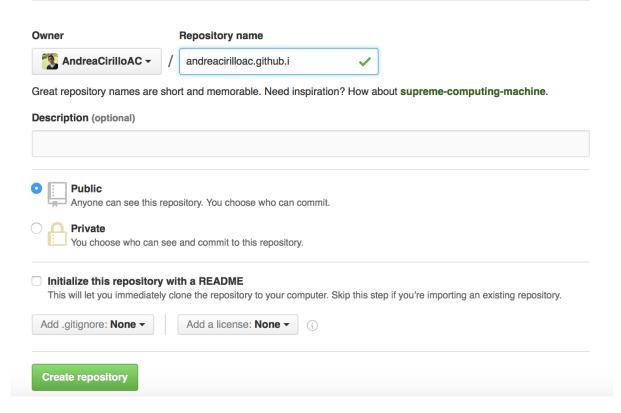


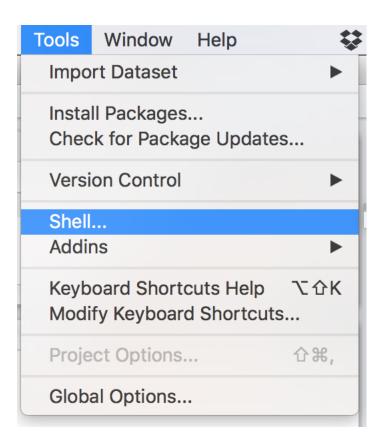


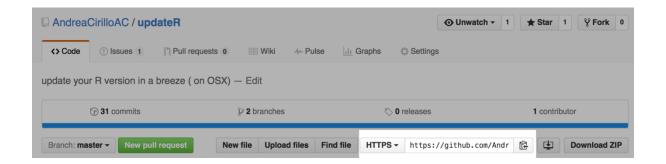


Create a new repository

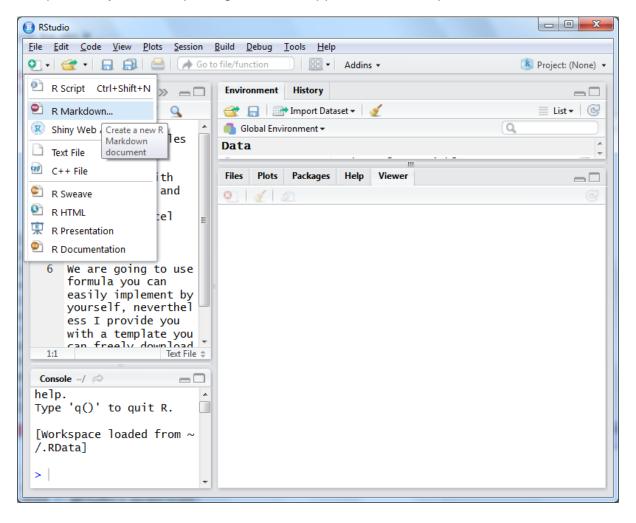
A repository contains all the files for your project, including the revision history.

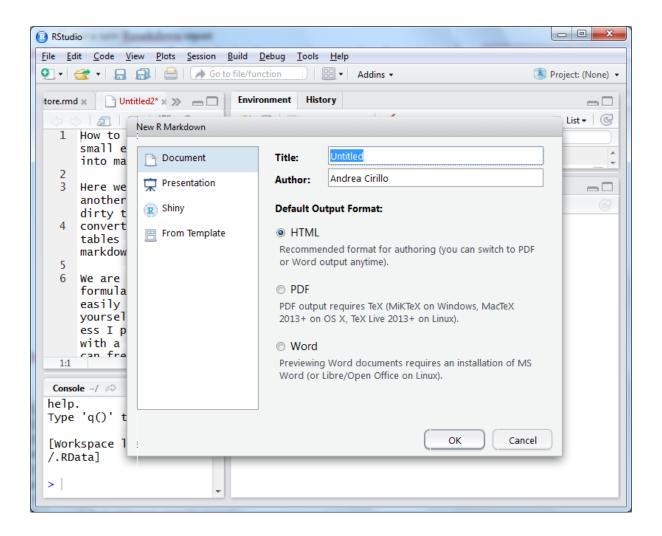






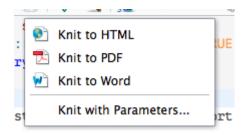
Chapter 8: Dynamic Reporting and Web Application Development

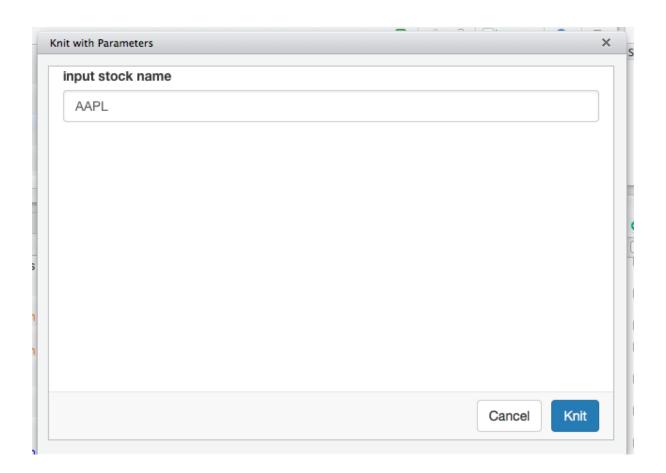




```
1 - ---
 2
    title: "params report"
    author: "Andrea Cirillo"
 3
    date: "25 February 2016"
 4
 5
    output: html_document
 6
    params:
 7
      stock:
        label:"input stock name"
 8
 9
        value: "AAPL"
        input: "text"
10
11
12 - ---
```

```
16 - '``{r}
17  install.packages(quantmod)
18  library(quantmod)
19  params$stock
20  stock <- getSymbols(params$stock)
21  stock_data <- get(stock)
22  stock_data <- as.data.frame(stock_data)
23  plot(stock_data[,4])
24  head(stock_data[,1:3],n = 20)
25 ^ '``</pre>
```





params_report

Andrea Cirillo 25 February 2016

Custom Stock Quotations Report

```
params$stock

## [1] "AAP"

stock <- getSymbols(params$stock)

## As of 0.4-0, 'getSymbols' uses env=parent.frame() and
## auto.assign=TRUE by default.

##

## This behavior will be phased out in 0.5-0 when the call will
## default to use auto.assign=FALSE. getOption("getSymbols.env") and
## getOptions("getSymbols.auto.assign") are now checked for alternate defaults
##

## This message is shown once per session and may be disabled by setting
## options("getSymbols.warning4.0"=FALSE). See ?getSymbols for more details.

stock_data <- get(stock)
stock_data <- as.data.frame(stock_data)
plot(stock_data[,4])</pre>
```

custom filtering and visualization of your dataset

using this app you can easily filter the iris dataset, choosing which species to show and which range of Sepal.Length to consider

select the species you want to focus on

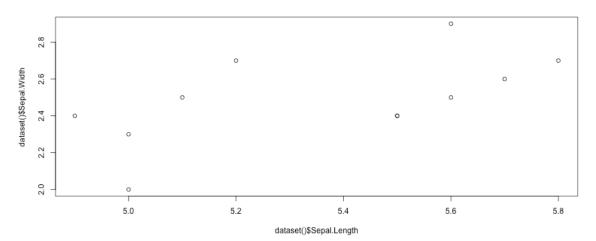
virginica

versicolor

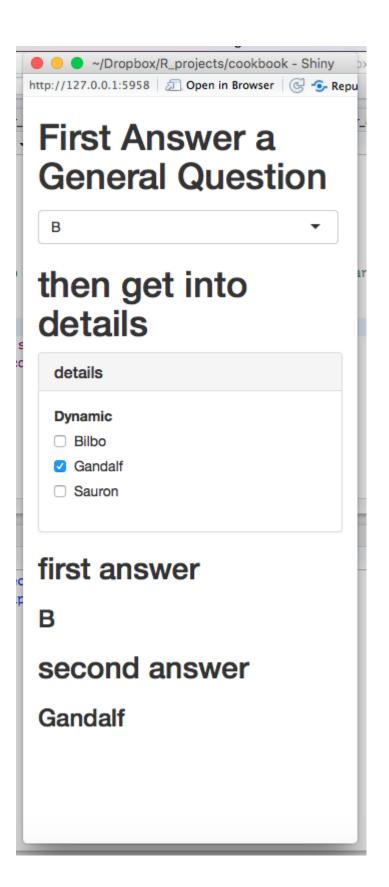
setosa

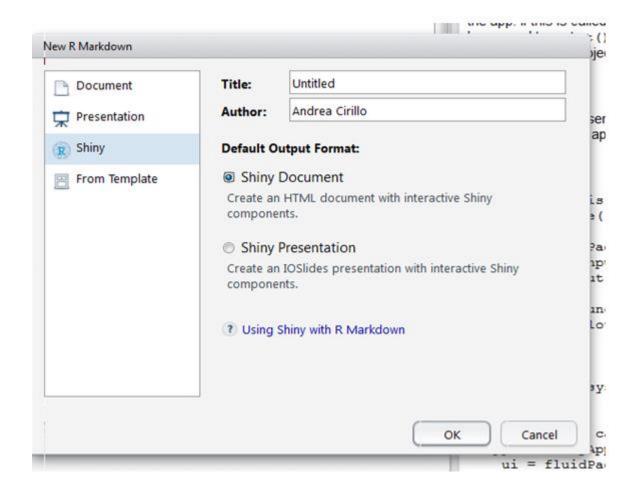
select a range for Petal.Length attribute

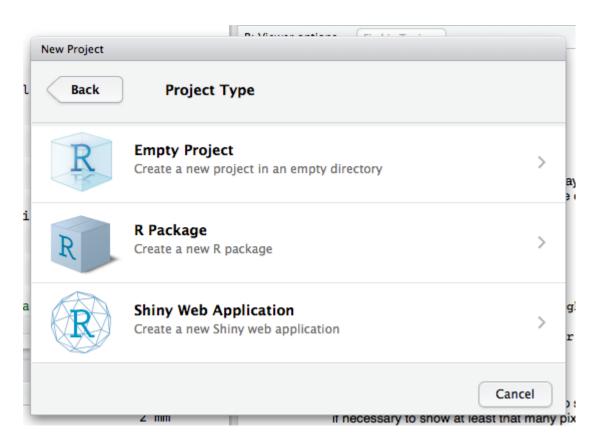


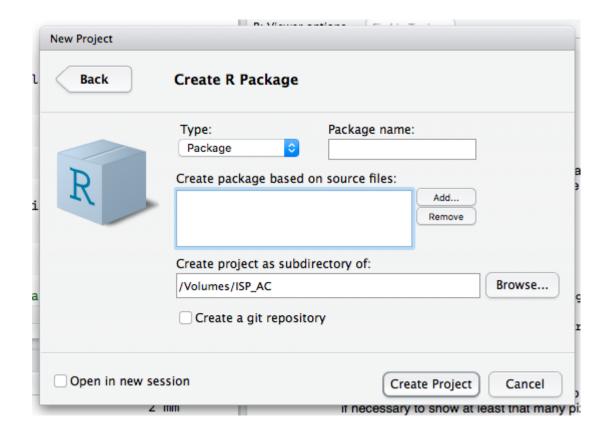


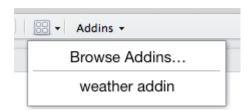
	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
58	4.90	2.40	3.30	1.00	versicolor
60	5.20	2.70	3.90	1.40	versicolor
61	5.00	2.00	3.50	1.00	versicolor
65	5.60	2.90	3.60	1.30	versicolor
70	5.60	2.50	3.90	1.10	versicolor
80	5.70	2.60	3.50	1.00	versicolor
81	5.50	2.40	3.80	1.10	versicolor
82	5.50	2.40	3.70	1.00	versicolor
83	5.80	2.70	3.90	1.20	versicolor
94	5.00	2.30	3.30	1.00	versicolor
99	5.10	2.50	3.00	1.10	versicolor





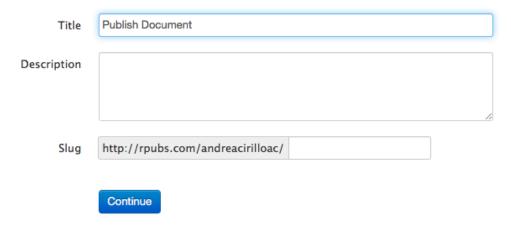


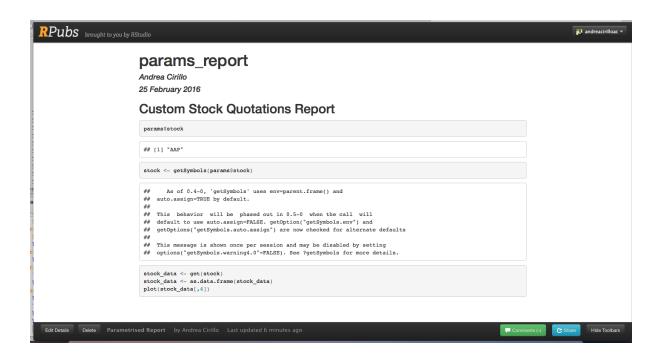


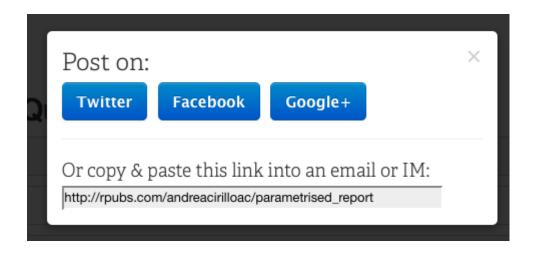


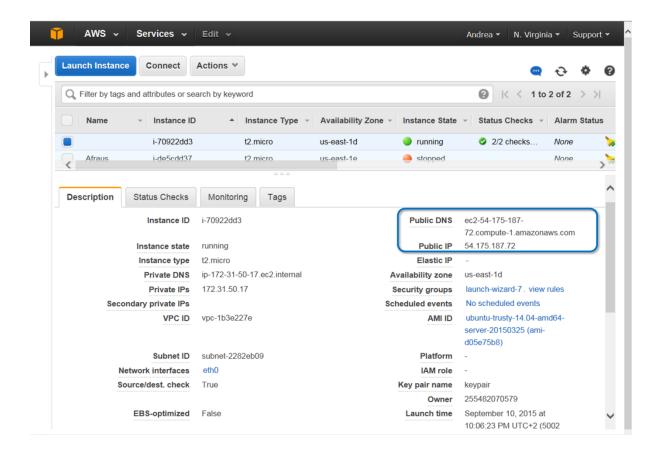


Document Details — Step 2 of 2









Select an existing key pair or create a new key pair

×

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about removing existing key pairs from a public AMI.

