An introduction to R using the tidyverse

@ BC Stats

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To avoid package problems today

In a fresh R session, in the **Console** type:

```
.libPaths()[1]
```

If the output looks like:

```
[1] "C:/Users/[your_user_name]/R/win-library/3.4/"
```

You are good to go. Really, anything that starts with `"C:/"` should be fine as long as it's not `"C:/Program Files/..."`

If not, especially if it is either `H:/...` or `\\\SFP.IDIR.BCGOV` **talk to a TA**!

Introductions

Adapted from 'Master the tidyverse' CC by RStudio

Day 2

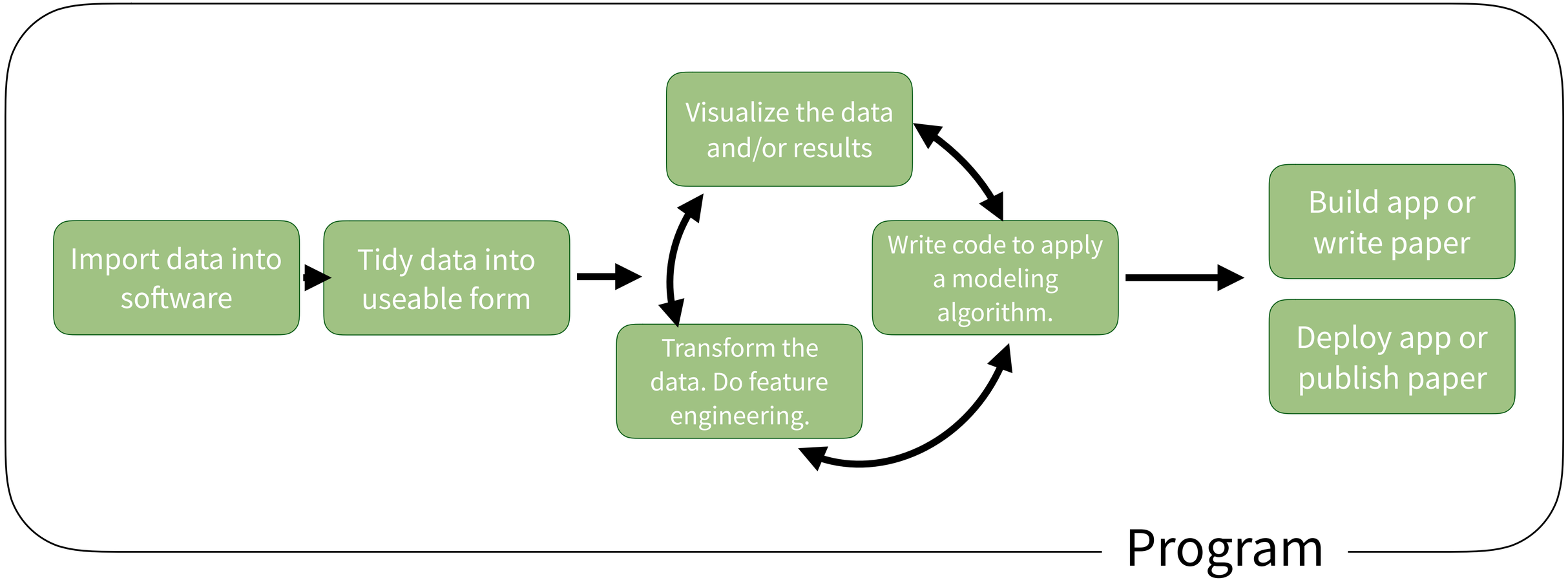
Introduction and Visualize Data	8:30-10:15
Morning Break	10:15 - 10:30
Visualize Data	10:30 - 12:00
Lunch	12:00 - 1:00
Transform Data	1:00 - 2:30
Afternoon Break	2:30 - 2:45
Tidy Data	2:45 - 4:30

Your Turn

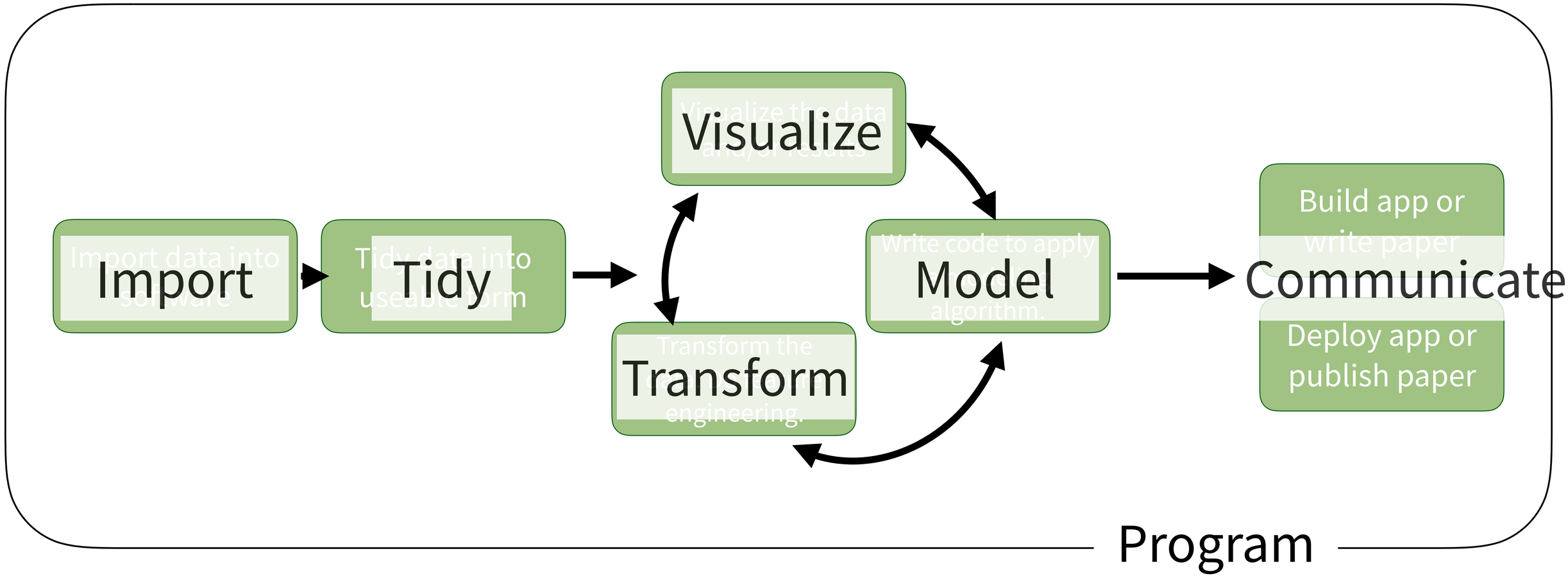
Re-Introduce yourself to your neighbours. Tell them:

1. Who you are
2. What you do with data
3. How long you have been using R

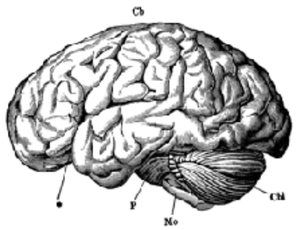
(Applied) **Data Science**



(Applied) **Data Science**



R - A computer language for scientists

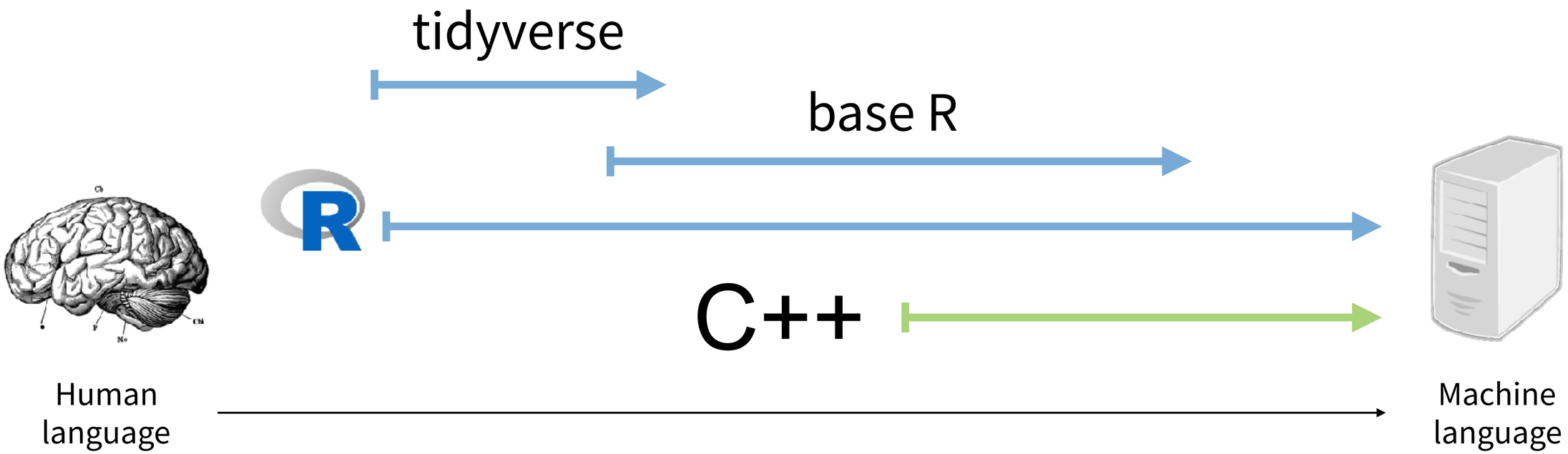


Human language

C++

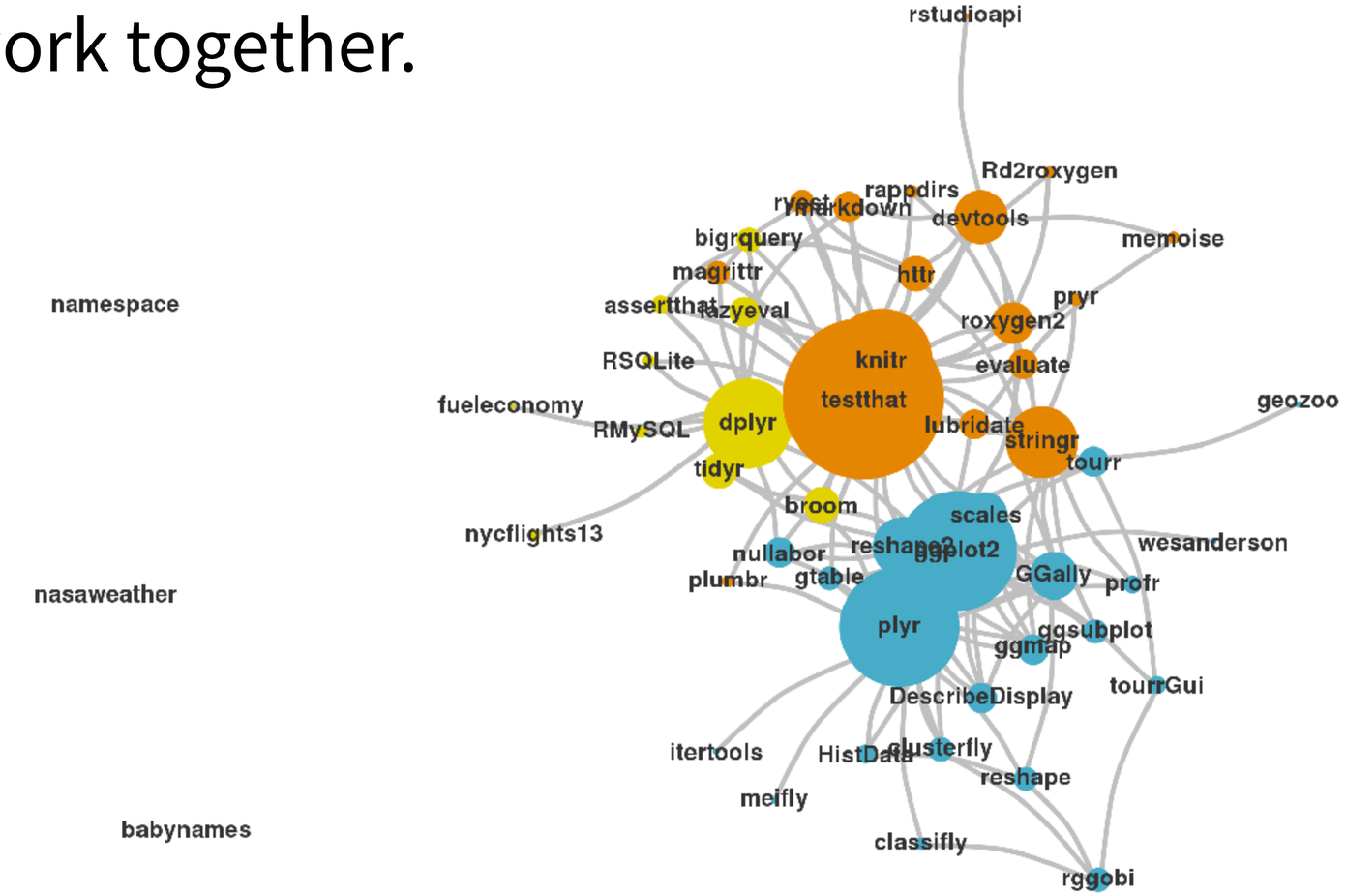
Machine language

R - A computer language for scientists



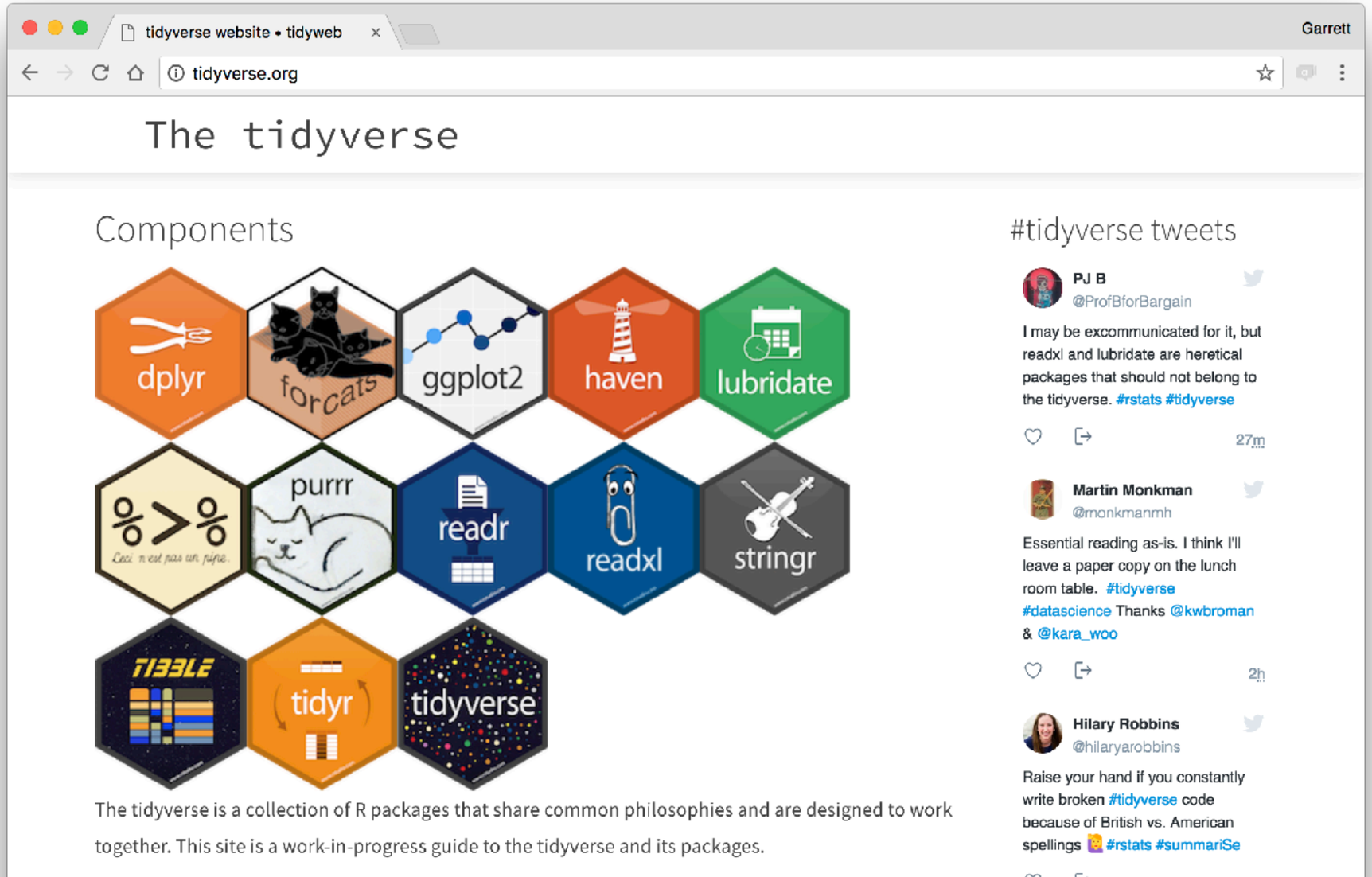
The Tidyverse

A collection of modern R packages that share common philosophies, embed best practices, and are designed to work together.

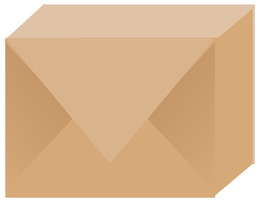


Display by Adolfo Álvarez

tidyverse.org



tidyverse



An R package that serves as a short cut for installing and loading the components of the tidyverse.

```
library("tidyverse")
```

R Packages

Using packages

1

```
install.packages("foo")
```

Downloads files to computer

1 x per computer

2

```
library("foo")
```

Loads package

1 x per R Session

```
install.packages("tidyverse")
```

does the equivalent of

```
install.packages("ggplot2")
install.packages("dplyr")
install.packages("tidyr")
install.packages("readr")
install.packages("purrr")
install.packages("tibble")
install.packages("hms")
install.packages("stringr")
install.packages("lubridate")
install.packages("forcats")
install.packages("DBI")
install.packages("haven")
install.packages("httr")
install.packages("jsonlite")
install.packages("readxl")
install.packages("rvest")
install.packages("xml2")
install.packages("modelr")
install.packages("broom")
```

```
library("tidyverse")
```

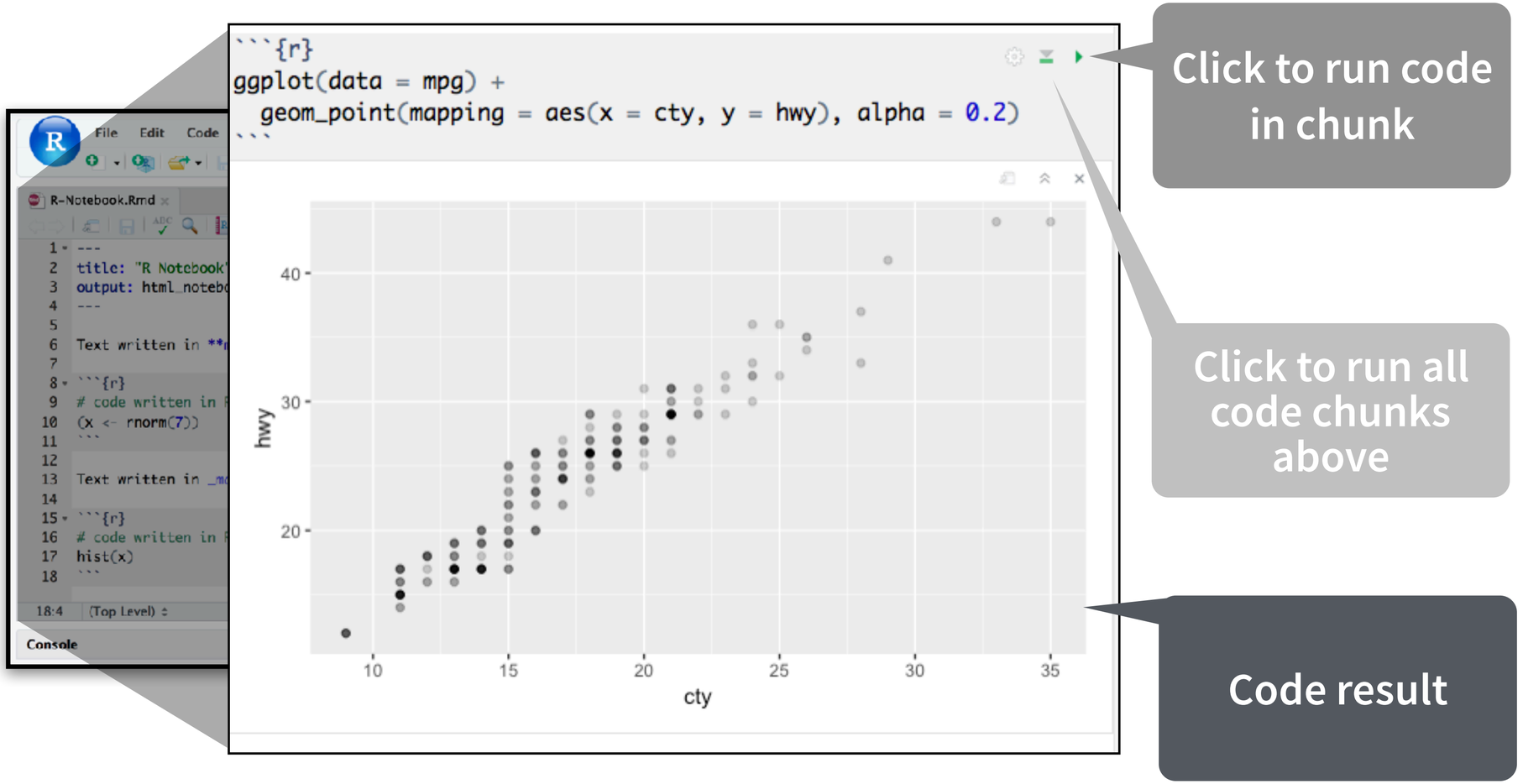
does the equivalent of

```
library("ggplot2")
library("dplyr")
library("tidyr")
library("readr")
library("purrr")
library("tibble")
```

R Notebooks

RMarkdown

An authoring format for Data Science.



Your Turn

1. Open RStudio by opening **r_intro_bc_stats.Rproj.** (Or open RStudio then File -> Recent Projects -> r_intro_bc_stats)
2. Open **03-Visualize-Data.Rmd**.