



THE UNIVERSITY OF
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R Programming Workshop Winter 2016

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Introductions

Workshop Objectives

- Get Comfortable with R
 - For Your Classes
 - Individual Projects
- Learn to Work with
 - Core R: data structures and methods to work with data
 - Extensions: packages that make life easier
- Understand the Ecosystem

Resources

- Stackoverflow - <http://stackoverflow.com/search?q=rstats>
- Reddit
 - [/r/rstats](#)
 - [/r/RStudio](#)
- R Bloggers - <http://www.r-bloggers.com/>

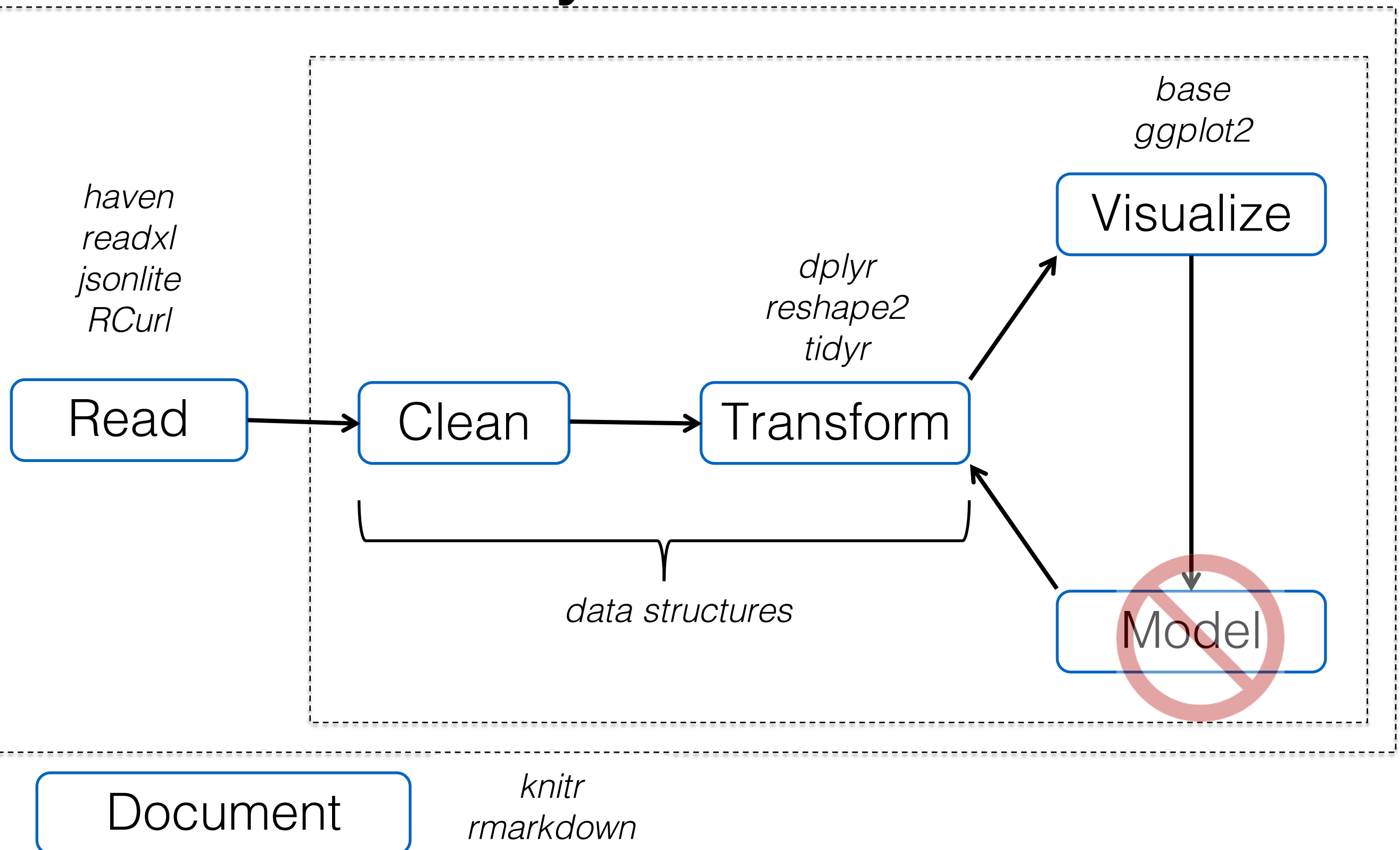
Today's Objectives

- Brief Discussion of R for Data Science / Analysis
- Setting up and Customizing RStudio
- Data Analysis Value Chain
- Installing Packages
- Finding Help

Why ?

(oh btw, I've heard of Python)

Data Analysis Value Chain



Working with RStudio

Working with Packages

Installing Packages from CRAN

- Finding a package - rdocumentation.org
- Installing

> install.packages("packagename")

- Loading

> library(packagename)

> require(packagename) #when using RMarkdown

Installing Packages From CRAN

- **devtools**
- **rmarkdown**
- **knitr**

Installing Packages From Github

```
> library(devtools)
```

```
> install_github("dgrtwo/broom")
```

Finding Help in R

- ? – Exact match
- ?? – Fuzzy match

R Markdown

Required Libraries

Within R

- knitr
- rmarkdown

Outside R (for PDF output)

- pandoc
- LaTeX

Recap

- Customizing RStudio
- Setting up an RStudio Project
- Overview of Data Analysis Value Chain
- Installing and Updating Packages
- Finding Help