THE UNIVERSITY OF CHICAGO

R Programming Workshop
Fall 2015

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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

Discussion Board

https://www.reddit.com/r/UChicagoRProgramming

Resources

- Stackoverflow - http://stackoverflow.com/search?q=rstats
- Reddit
  - /r/rstats
  - /r/RStudio
- R Bloggers - http://www.r-bloggers.com/

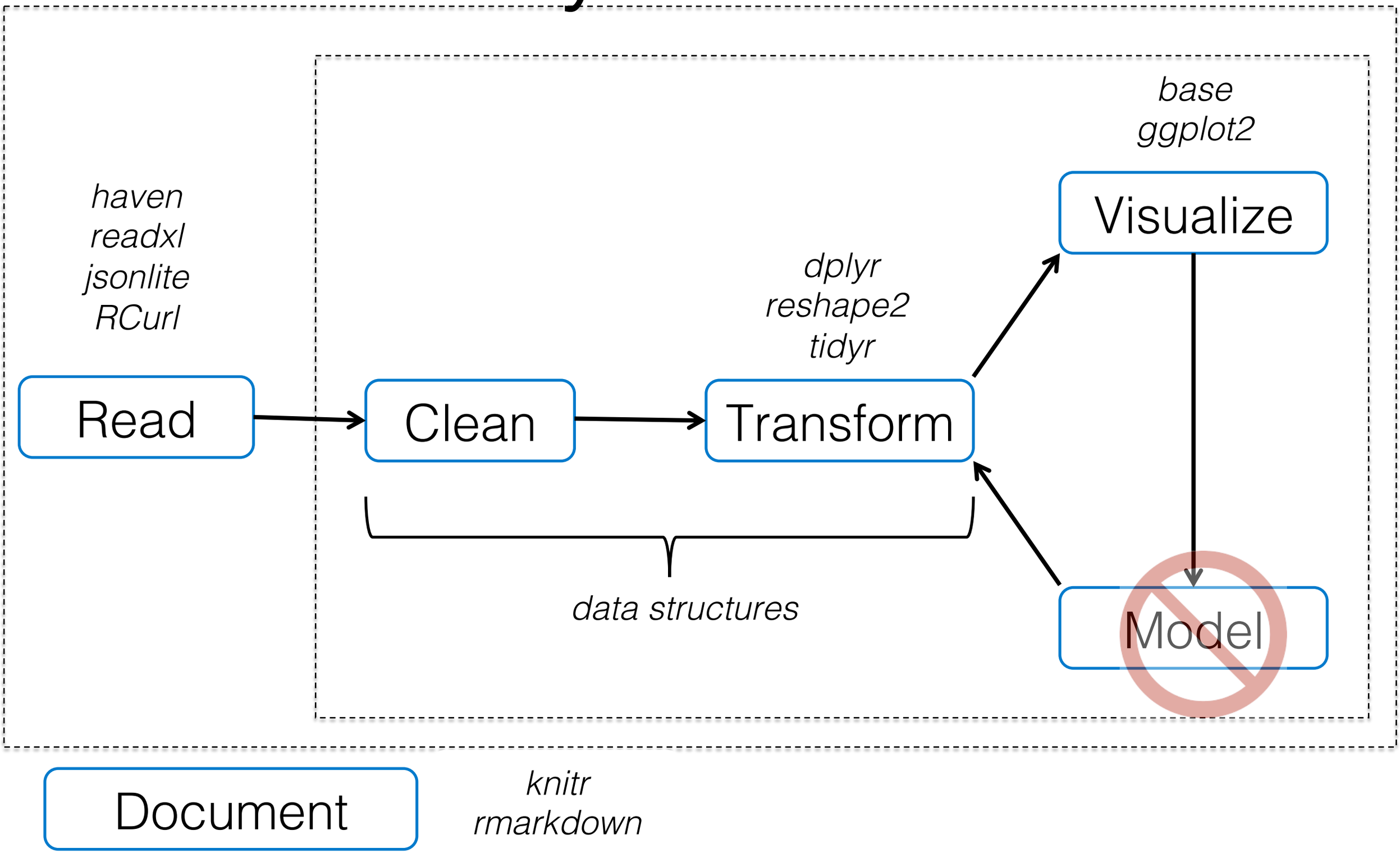
Today's Objectives

- 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