

# Building Your First R Analytics Solution

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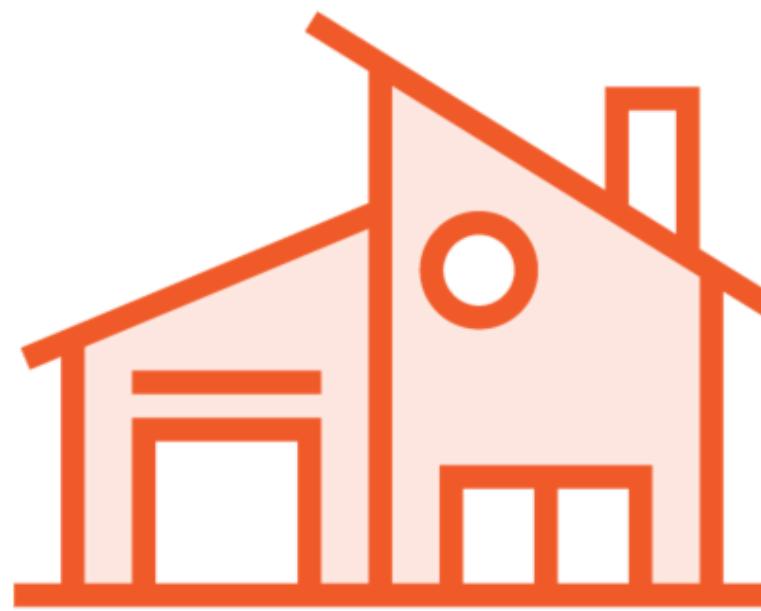
SETTING UP YOUR COMPUTER TO USE R



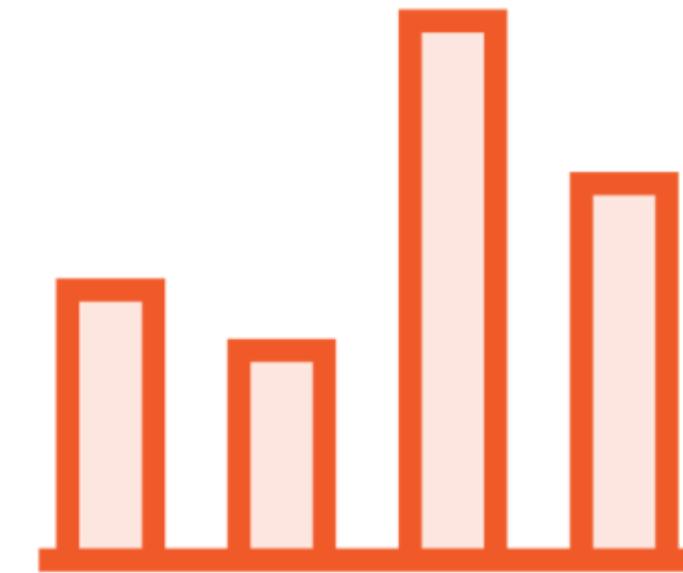
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# Task: Summarize House Sales



R



**Data**

Sale prices  
of houses

**Report**

Summary of sales  
by neighborhood





`summarize_sales.R`

R Code Provided  
by a Colleague

What does the code do?



# Overview

## Installing required software:

- R
- RStudio IDE

**Open and edit R code files**

**Run R code**

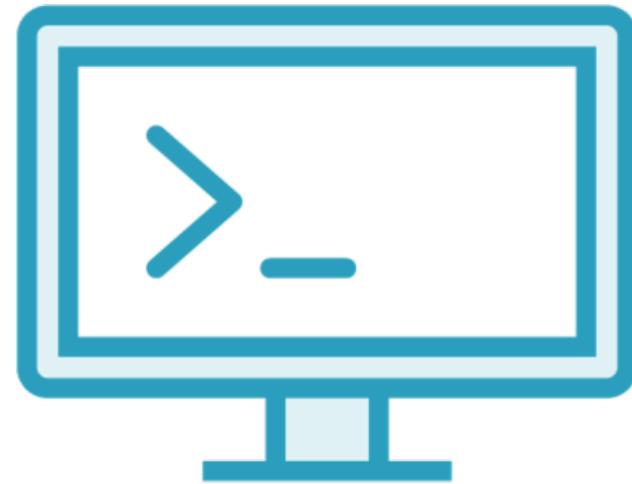


# Installing R and RStudio

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# Software Required to Use R



**R**

**Run R code**



**RStudio IDE**

**Efficiently work with code,  
files and results**



# R



# RStudio



# Demo

- 1. Install R**

<https://www.r-project.org/>

- 2. Install RStudio Desktop IDE**

<https://rstudio.com>

- 3. Open RStudio to check install**



# Working with Code in RStudio

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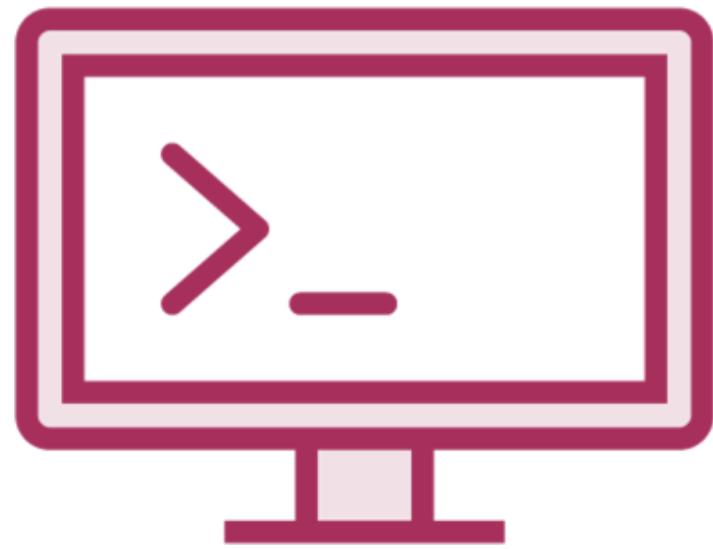
# Demo

## **Running R code in RStudio**

- On the console
- From an R script



# Two Panes in RStudio



## Console

Run R code  
immediately



## Source Editor

View and edit files  
Run line: Ctrl/Cmd + Enter



# Demo

**What does the code in a script file do?**

- Opening an R script file
- Running code line by line



# Two Components of Communication

**Code comment**

**Will not be evaluated**

**Error message**

**R couldn't run your code**

**Input**

# generate some fake data...

**Output**

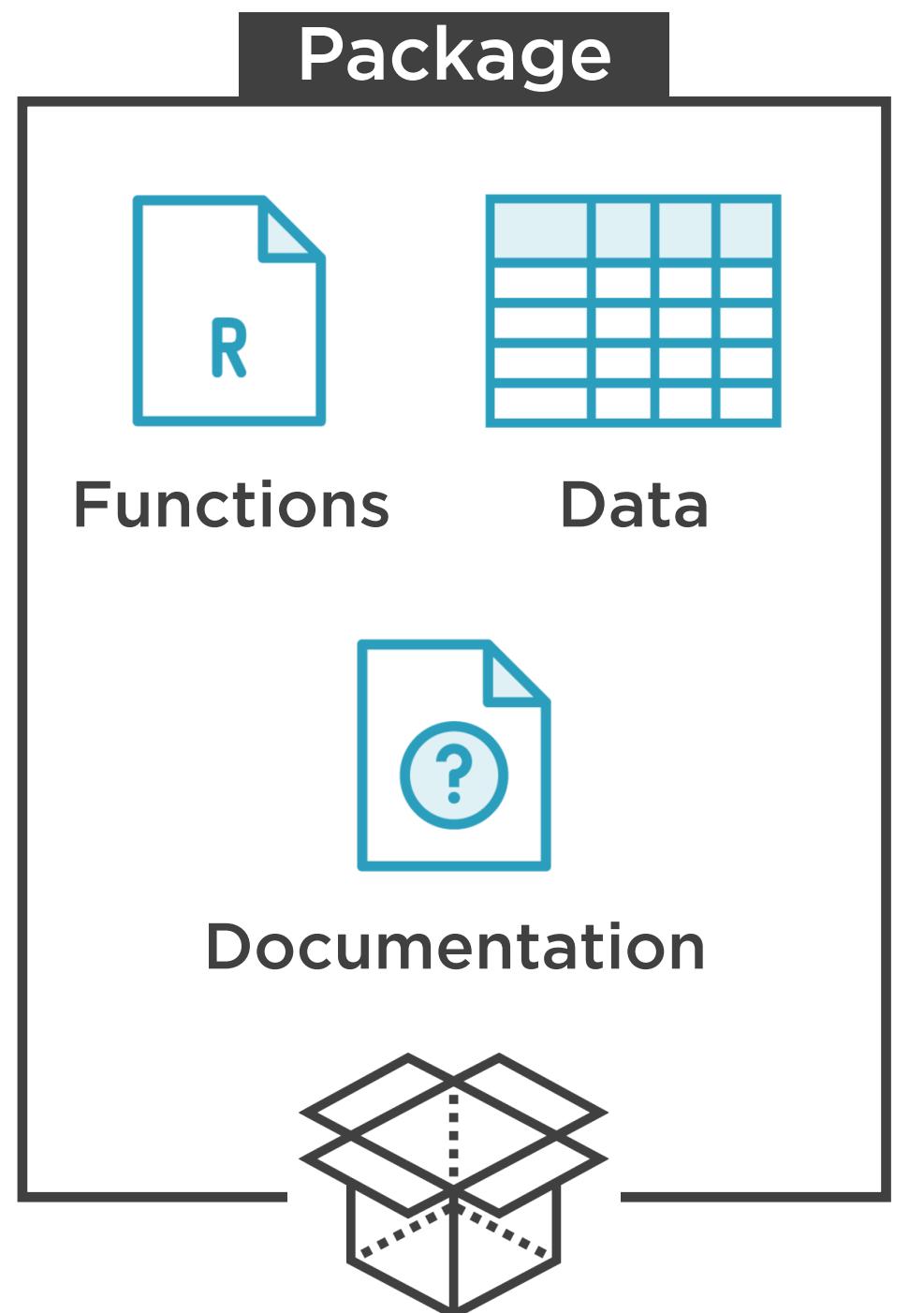
Error in ...

# R Packages

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# R Packages Add Functionality to R



**To use a package:**

1. Install the package
2. Load the package



**library(tidyverse)**

```
#> Error in library(tidyverse): there is no  
#> package called 'tidyverse'
```

Load a Package

**Error: if you don't have the package installed**



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

Install a Package



# Install Once; Load Every Session

Install on the Console; Load in Your Script

summarize\_sales.R

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

```
library(tidyverse)
```



summarize\_sales.R

R Code Provided  
by a Colleague

What does the code do?

Run the code line by  
line to **see**



# Summary

**Code does required calculations,  
but need to:**

- Use data from CSV file
- Combine results into report

**Up next:  
Working with R Code in RStudio**

