

# Your Turn 1: Consider

What do you do when you want to learn a new package?





# Learning new packages

1. Examples
2. Vignettes/pkgdown
3. README
4. Blog posts
5. Books



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1. **Examples**
2. Vignettes/pkgdown
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# Learning new packages

1. Examples
2. **Vignettes/pkgdown**
3. **README**
4. Blog posts
5. Books

# Guiding users

document	scope
Vignettes	User-friendly, deeper introductions and complex topics
README	Simple introduction, installation. Get users going
Documentation and examples	Granular, function-specific details and examples



# Examples revisited

If you don't want to run examples,  
wrap them in `\dontrun{ }` or  
`\dontrun{ }`

```
#' [other roxygen code]
#' @examples
#'
#' \dontrun{
#'   get_data("daily_active_users")
#' }
get_data <- function(x) {
  # code to get data
}
```



# Examples revisited

Don't mess around with the user's directory. Use `tempfile()` or `withr` if you need to.

```
withr::with_tempdir(...)
```



```
withr::with_tempdir(create_package("temp.package"))

## ✓ ✓ Creating 'temp.package/'

## ✓ ✓ Setting active project to '/private/var/folders/w7/8yv1...'

## ✓ ✓ Creating 'R/'

## ✓ ✓ Writing 'DESCRIPTION'

## Package: temp.package
## Title: What the Package Does (One Line, Title Case)
## Version: 0.0.0.9000
## Authors@R (parsed):
##   * Malcolm Barrett <malcolmbarrett@gmail.com> [aut, cre] (<https://orcid.org/0000-0001-9145-3043>)
## Description: What the package does (one paragraph).
## License: MIT + file LICENSE
## Encoding: UTF-8
## Roxygen: list(markdown = TRUE)
## RoxygenNote: 7.1.2

## ✓ ✓ Writing 'NAMESPACE'

## ✓ ✓ Writing 'temp.package.Rproj'

## ✓ ✓ Adding '^temp\\.package\\.Rproj$' to '.Rbuildignore'

## ✓ ✓ Adding '.Rproj.user' to '.gitignore'
```





# Vignettes

Long-form documentation, written  
in R Markdown: `use_vignette()`



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Great for general introductions  
and complex topics you don't want  
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Long-form documentation, written  
in R Markdown: `use_vignette()`

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Get rendered on pkgdown sites.  
See also `use_article()`



```
use_vignette("intro-to-shinRa")
```

```
shinRa
```

```
├── .Rbuildignore
```

```
├── .gitignore
```

```
├── DESCRIPTION
```

```
├── NAMESPACE
```

```
├── R/
```

```
│   ├── themes.R
```

```
├── man
```

```
│   ├── theme_mako.Rd
```

```
├── tests
```

```
│   ├── testthat
```

```
│       └── test-themes.R
```

```
│   └── testthat.R
```

```
└── vignettes
```

```
    └── intro-to-shinRa.Rmd
```

```
└── shinRa.Rproj
```



```
use_vignette("intro-to-shinRa")
```

```
---
```

```
title: "intro-to-shinRa"  
output: rmarkdown::html_vignette  
vignette: >
```

```
%\VignetteIndexEntry{intro-to-shinRa}  
  %\VignetteEngine{knitr::rmarkdown}  
  %\VignetteEncoding{UTF-8}
```

```
---
```



```
use_vignette("intro-to-shinRa")
```

```
---
```

```
title: "intro-to-shinRa"
```

```
output: rmarkdown::html_vignette
```

```
vignette: >
```

```
%\VignetteIndexEntry{intro-to-shinRa}
```

```
  %\VignetteEngine{knitr::rmarkdown}
```

```
  %\VignetteEncoding{UTF-8}
```

```
---
```



# lightweight R Markdown output

```
---  
title: "intro-to-shinRa"  
output: rmarkdown::html_vignette  
vignette: >  
  
%\VignetteIndexEntry{intro-to-shinRa}  
%\VignetteEngine{knitr::rmarkdown}  
%\VignetteEncoding{UTF-8}  
---
```



# Need a Markdown refresher?

Interactive, 10-20 min tutorial:

<https://commonmark.org/help/tutorial/>

The R Markdown [website](#) or [book](#)





# Your Turn 2

Open `vignettes/intro-to-avalanchr.Rmd`.

Let's add some more content before we knit this vignette. Lines 27-29 have an R Markdown code chunk. On line 28, fill in the blank with this code:

```
db_con("residents_per_sector")
```

Let's also add some examples of the summarizing and plotting functions. On line 57, fill in the blank with `count_donations()`. On line 62, use `plot_donations()`

Knit the vignette. If you're having trouble finding some of your functions, try re-loading or documenting and re-building.



# README

**A quick overview of your package**



# README

A quick overview of your package

**A good place for installation  
instructions**



# README

A quick overview of your package

A good place for installation  
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**Becomes the homepage for a  
pkgdown site**



# README

A quick overview of your package

A good place for installation instructions

Becomes the homepage for a pkgdown site

`use_readme_md()` **or**  
`use_readme_rmd()`






# What should I put in the README?


1. Badges (`?use_badge()`), where applicable.
2. Installation instructions
3. A few examples
4. Maybe: how to contribute (`use_tidy_contributing()`)

# R Packages: ggplot2's README

 README.md

## ggplot2

build passing build passing coverage 81% CRAN 3.2.1



### Overview

ggplot2 is a system for declaratively creating graphics, based on [The Grammar of Graphics](#). You provide the data, tell ggplot2 how to map variables to aesthetics, what graphical primitives to use, and it takes care of the details.


### Installation

```
# The easiest way to get ggplot2 is to install the whole tidyverse:
install.packages("tidyverse")

# Alternatively, install just ggplot2:
install.packages("ggplot2")

# Or the development version from GitHub:
# install.packages("devtools")
devtools::install_github("tidyverse/ggplot2")
```

### Cheatsheet



### Usage

It's hard to succinctly describe how ggplot2 works because it embodies a deep philosophy of visualisation. However, in most cases you start with `ggplot()`, supply a dataset and aesthetic mapping (with `aes()`). You then add on layers (like `geom_point()` or `geom_histogram()`), scales (like `scale_colour_brewer()`), faceting specifications (like `facet_wrap()`) and coordinate systems (like `coord_flip()`).



# Other READMEs: Zhi Yang's TidyTuesday repo

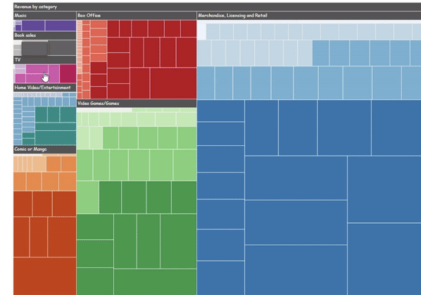
README.md

## Data Visualization Gallery

[Twitter](#) | [LinkedIn](#) | [GitHub](#) | [Website](#)

► [Table of Contents](#) (click to expand)

How to make an interactive treemap using **treemap** and **d3treeR**



Data: introduction of #TidyTuesday media franchise data [here](#)

Code: click [here](#)

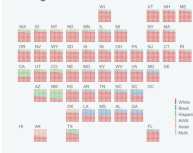
Note: to interact with the treemaps, please go to the [post](#)

How to make an geofacet waffle chart using **geofacet**

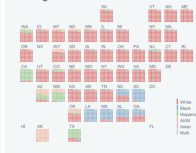
Population distribution by race/ethnicity among diverse school districts during 2016-2017



Population distribution by race/ethnicity among undiverse school districts during 2016-2017



Population distribution by race/ethnicity among extremely undiverse school districts during 2016-2017





# Other READMEs: Zhi Yang's TidyTuesday repo

## Check out "Building a Better README"

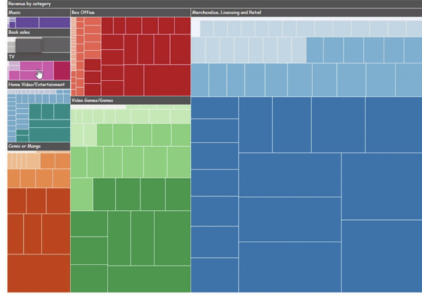
README.md

### Data Visualization Gallery

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#### How to make an interactive treemap using **treemap** and **d3treeR**

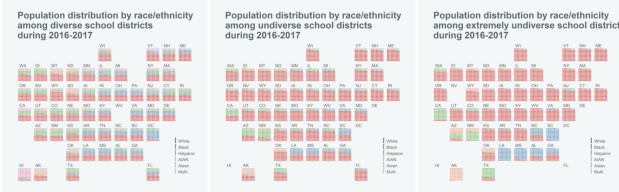


Data: introduction of #TidyTuesday media franchise data [here](#)

Code: click [here](#)

Note: to interact with the treemaps, please go to the [post](#)

#### How to make an geofacet waffle chart using **geofacet**



# Your Turn 3

Run `use_readme_rmd()` to setup a README. Knit the file and take a look.

Let's add some badges. Run `use_lifecycle_badge("experimental")` and `use_cran_badge()`. Then, re-knit.



# Spell check with the spelling package

```
use_spell_check()
```

