Style Guide

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```
# Most of contents here are adapted from https://style.tidyverse.org
```

Five rules

- Write code as if you're writing a paper.
- Organize files.
- Comment religiously.
- Reuse functions.
- Do version control.

Files

```
# Good
fit_models.R

# Bad
fit models.R
```

- When naming files:
  - Don't use speccial characters.
  - Don't capitalize.
  - Numbering them if files should be run in an order.

Syntax

Objects

```
# Good
day_one

# Bad
DayOne
```

- When naming objects:
  - Don't use speccial characters.
  - Don't capitalize.
  - Numbering them if files should be run in an order.

Functions

```
# Good
run_rdd

# Bad
rdd
```

- When naming objects:
  - Don’t use speccial characters.
  - Don’t capitalize.
  - Use verbs instead of nouns.

Spacing

```
# Good
x[, 1]

mean(x, na.rm = TRUE)

if (debug) show(x)

function(x) {}

height <- (feet * 12) + inches

sqrt(x^2 + y^2)

# Bad
x[,1]

mean (x, na.rm = TRUE)

if(debug) show(x)

function(x){}

height <- (feet*12) + inches

sqrt(x ^ 2 + y ^ 2)
```

Indenting

```
# Good
if (y < 0 && debug) {
  message("y is negative")
}

# Bad
if (y < 0 && debug)
message("Y is negative")
```

Long lines

```
# Good
do_something_very_complicated(
  something = "that",
  requires = many,
  arguments = "some of which may be long"
)

# Bad
do_something_very_complicated("that", requires, many, arguments,
                              "some of which may be long"
                              )
```

Comments

- Use comments for findings and analysis decisions.
- Show your code; Do not try to explain your code by comments.

Functions

```
# Good
add_row()

# Bad
row_adder()
```

Comments

- Inside functions, use comments to explain **why**

Pipes

```
# Good
iris %>%
  group_by(Species) %>%
  summarize_if(is.numeric, mean) %>%
  ungroup() %>%
  gather(measure, value, -Species) %>%
  arrange(value)

# Bad
iris %>% group_by(Species) %>% summarize_all(mean) %>%
ungroup %>% gather(measure, value, -Species) %>%
arrange(value)
```

Additional tips

- Use styler package in R to learn how to format your code to according to the style guide above