

# Pretty tables with kableExtra

Emily Malcolm-White



```
#LOAD PACKAGES
library(tidyverse)

#LOAD DATA
library(palmerpenguins)
data(penguins)

#CLEAN UP DATA
penguins <- penguins %>%
  drop_na()
#sometimes this is appropriate. It's questionable here...
```

## default printing style of a table

Let's consider our table from last class:

```
penguins %>%
  group_by(species) %>%
  summarise(average_bill_lenth = mean(bill_length_mm),
            average_bill_depth = mean(bill_depth_mm))
```

```
# A tibble: 3 x 3
  species average_bill_lenth average_bill_depth
  <fct>         <dbl>         <dbl>
1 Adelie         38.8         18.3
2 Chinstrap      48.8         18.4
3 Gentoo         47.6         15.0
```

When we knit this up it looks like of ugly...

## Using kable to get pretty tables

```
library(kableExtra)
```

```
penguins %>%
  group_by(species) %>%
  summarise(average_bill_length = mean(bill_length_mm),
            average_bill_depth = mean(bill_depth_mm)) %>%
  kbl()
```

| species   | average_bill_length | average_bill_depth |
|-----------|---------------------|--------------------|
| Adelie    | 38.82397            | 18.34726           |
| Chinstrap | 48.83382            | 18.42059           |
| Gentoo    | 47.56807            | 14.99664           |

#OR

```
table1 <- penguins %>%
  group_by(species) %>%
  summarise(average_bill_length = mean(bill_length_mm),
            average_bill_depth = mean(bill_depth_mm))

kbl(table1)
```

Table 1: Average Bill Characteristics by Species

| Species   | Average Bill Length | Average Bill Depth |
|-----------|---------------------|--------------------|
| Adelie    | 38.82               | 18.35              |
| Chinstrap | 48.83               | 18.42              |
| Gentoo    | 47.57               | 15.00              |

Table 2: Average Bill Characteristics by Species

| Species   | Average Bill Length | Average Bill Depth |
|-----------|---------------------|--------------------|
| Adelie    | 38.82               | 18.35              |
| Chinstrap | 48.83               | 18.42              |
| Gentoo    | 47.57               | 15.00              |

| species   | average_bill_length | average_bill_depth |
|-----------|---------------------|--------------------|
| Adelie    | 38.82397            | 18.34726           |
| Chinstrap | 48.83382            | 18.42059           |
| Gentoo    | 47.56807            | 14.99664           |

## Options in kable

We customize the content so it's displaying the information more clearly.

```
table1 %>%
  kbl(col.names = c("Species", "Average Bill Length", "Average Bill Depth"),
      caption = "Average Bill Characteristics by Species",
      digits = 2)
```

Better...

## pretty styling

```
table1 %>%
  kbl(col.names = c("Species", "Average Bill Length", "Average Bill Depth"),
      caption = "Average Bill Characteristics by Species",
      digits = 2) %>%
  kable_styling()
```

Table 3: Average Bill Characteristics by Species

| Species   | Average Bill Length | Average Bill Depth |
|-----------|---------------------|--------------------|
| Adelie    | 38.82               | 18.35              |
| Chinstrap | 48.83               | 18.42              |
| Gentoo    | 47.57               | 15.00              |

Many options for customizing the look of the tables – more here: [https://cran.r-project.org/web/packages/kableExtra/vignettes/awesome\\_table\\_in\\_html.html](https://cran.r-project.org/web/packages/kableExtra/vignettes/awesome_table_in_html.html)

Let's try one...

Let's make each row's color correspond to

```
table1 %>%
  kbl(col.names = c("Species", "Average Bill Length", "Average Bill Depth"),
      caption = "Average Bill Characteristics by Species",
      digits = 2) %>%
  kable_paper() %>%
  column_spec(1, bold=T) %>%
  row_spec(2, color = "#c85bcc") %>%
  row_spec(3, color = "#067176") %>%
  row_spec(1, color = "#ff7501")
```

RStudio hosts a table contest every year!

- Here is a link to this year's contest <https://www.rstudio.com/blog/rstudio-table-contest-2022/>
- Here is a link to previous year's entries and winners to explore what is possible! <https://community.rstudio.com/c/table-gallery/64>

#### Tip

As a general rule, you should have the content of the table as you'd like it (the exact columns and rows you want) first and *then* you can make it pretty using the **kableExtra** package.