## Reproducible penguins

library(tidyverse)
library(palmerpenguins)

### Meet Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see https://quarto.org.

## Meet the penguins

The penguins data from the palmerpenguins package contains size measurements for a bunch of penguins from three species observed on three islands in the Palmer Archipelago, Antarctica.



Figure 1: Artwork by @allison\_horst

#### Data

Let's take a peek at the data.

```
glimpse(penguins)
```

```
Rows: 344
Columns: 8
$ species
                                                                                       <fct> Adelie, 
$ island
                                                                                       <fct> Torgersen, Torgersen, Torgersen, Torgersen, Torgerse~
                                                                                       <dbl> 39.1, 39.5, 40.3, NA, 36.7, 39.3, 38.9, 39.2, 34.1, ~
$ bill_length_mm
$ bill_depth_mm
                                                                                        <dbl> 18.7, 17.4, 18.0, NA, 19.3, 20.6, 17.8, 19.6, 18.1, ~
$ flipper_length_mm <int> 181, 186, 195, NA, 193, 190, 181, 195, 193, 190, 186~
$ body_mass_g
                                                                                       <int> 3750, 3800, 3250, NA, 3450, 3650, 3625, 4675, 3475, ~
$ sex
                                                                                       <fct> male, female, female, NA, female, male, female, male~
                                                                                       <int> 2007, 2007, 2007, 2007, 2007, 2007, 2007, 2007, 2007
$ year
```

#### Visualization

Below is a visualization of the data.

```
ggplot(
  penguins,
  aes(x = flipper_length_mm, y = bill_length_mm)
) +
  geom_point(aes(color = species, shape = species)) +
  scale_color_manual(values = c("darkorange", "purple", "cyan4")) +
  labs(
    title = "Flipper and bill length",
    subtitle = "Dimensions for penguins at Palmer Station LTER",
    x = "Flipper length (mm)", y = "Bill length (mm)",
    color = "Penguin species", shape = "Penguin species"
) +
  theme_minimal()
```

# Flipper and bill length

