

A nice report

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
##      speed      dist
## Min.   : 4.0    Min.   :  2.00
## 1st Qu.:12.0    1st Qu.: 26.00
## Median :15.0    Median : 36.00
## Mean   :15.4    Mean   : 42.98
## 3rd Qu.:19.0    3rd Qu.: 56.00
## Max.   :25.0    Max.   :120.00
```

Including Plots

You can also embed plots, for example:

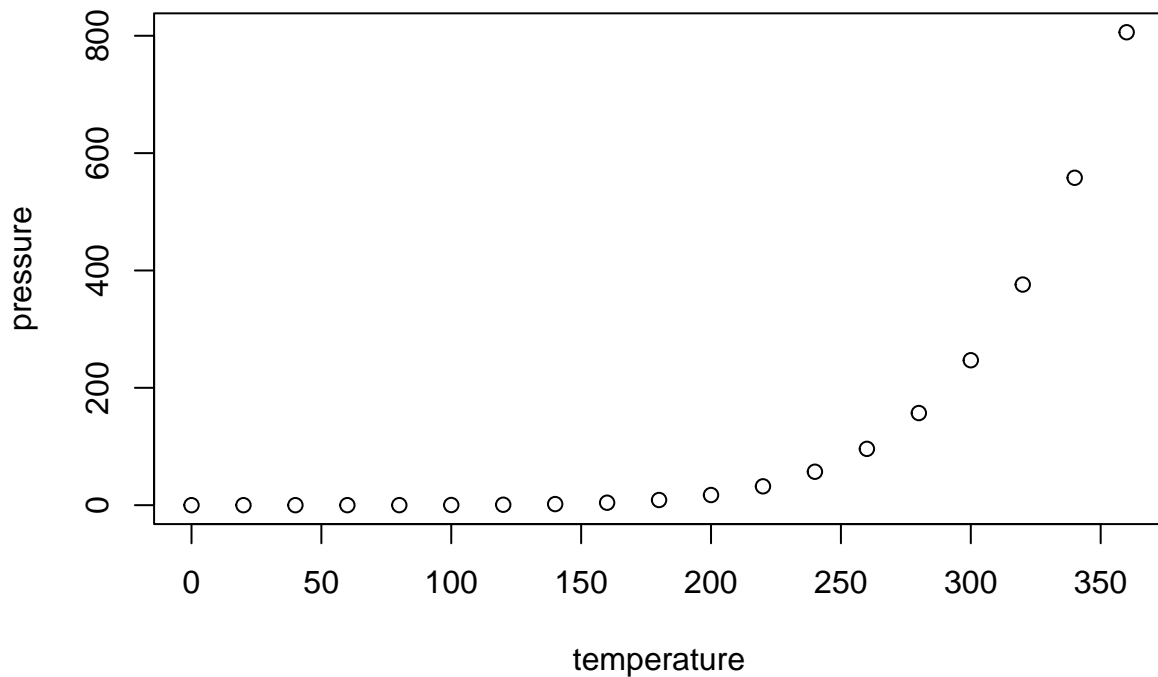


Figure 1: A plot of the tire pressure...?

Table 1: A table of some car data.

	mpg	cyl	disp	hp	drat	wt
Mazda RX4	21.0	6	160	110	3.90	2.620
Mazda RX4 Wag	21.0	6	160	110	3.90	2.875
Datsun 710	22.8	4	108	93	3.85	2.320
Hornet 4 Drive	21.4	6	258	110	3.08	3.215
Hornet Sportabout	18.7	8	360	175	3.15	3.440

Including equations

Here is an example of an equation over two lines.

$$\begin{aligned}
 &P(X_{n+1} = j \mid X_0 = i_0, \dots, X_{n-1} = i_{n-1}, X_n = i_n) \\
 &= P(X_{n+1} = j \mid X_n = i)
 \end{aligned}$$

Including tables

We can use `kable()` to generate tables from R output very easily. Here is a centered booktabs-style table with a caption.

Using ggplot2 in Rmarkdown

We make a simple figure from the penguin data. Notice that we use the option `warning = FALSE`, because `ggplot2` prints some warnings because there are some missing values in the data. This isn't a problem here, and the warnings look ugly in our report, so we remove them.

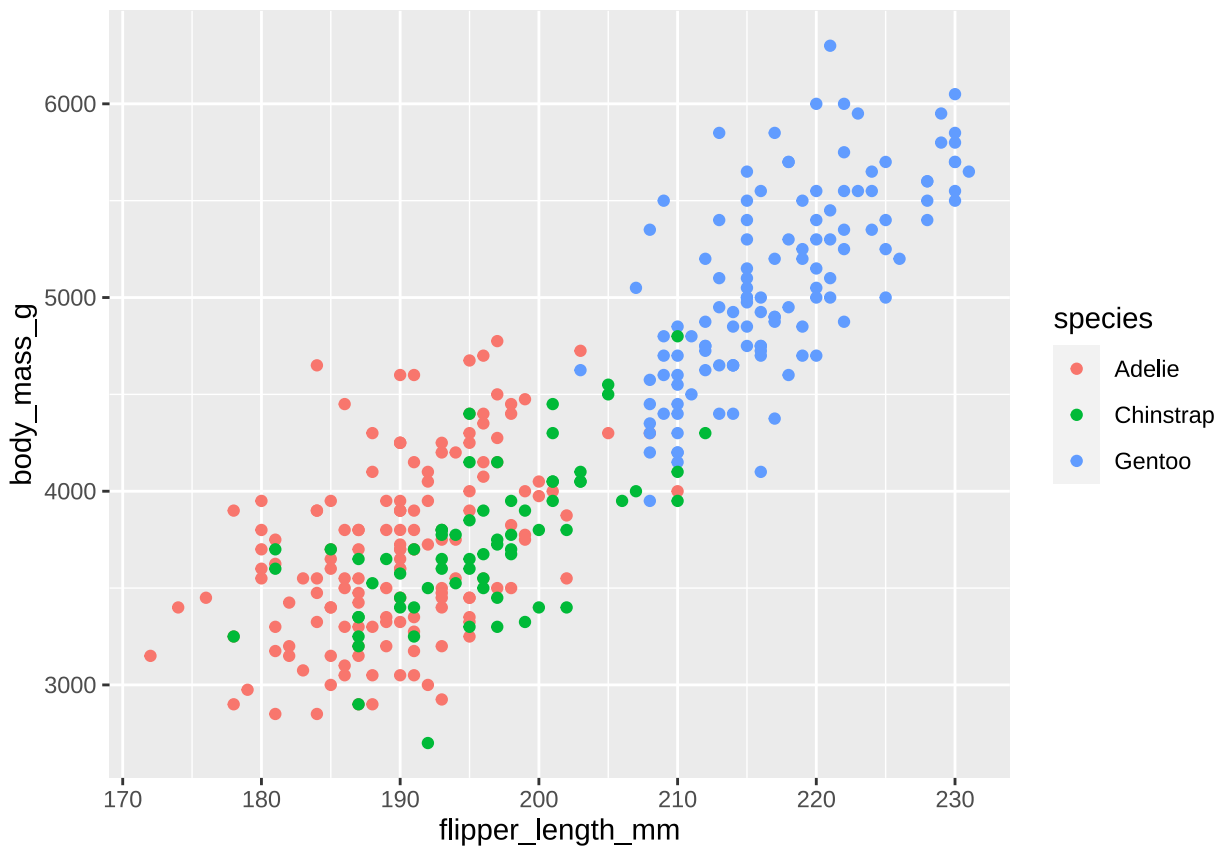


Figure 2: The Palmer penguin figure from the slides, an example of plotting in ggplot2. This version is the most simple version, using default themes and colors.

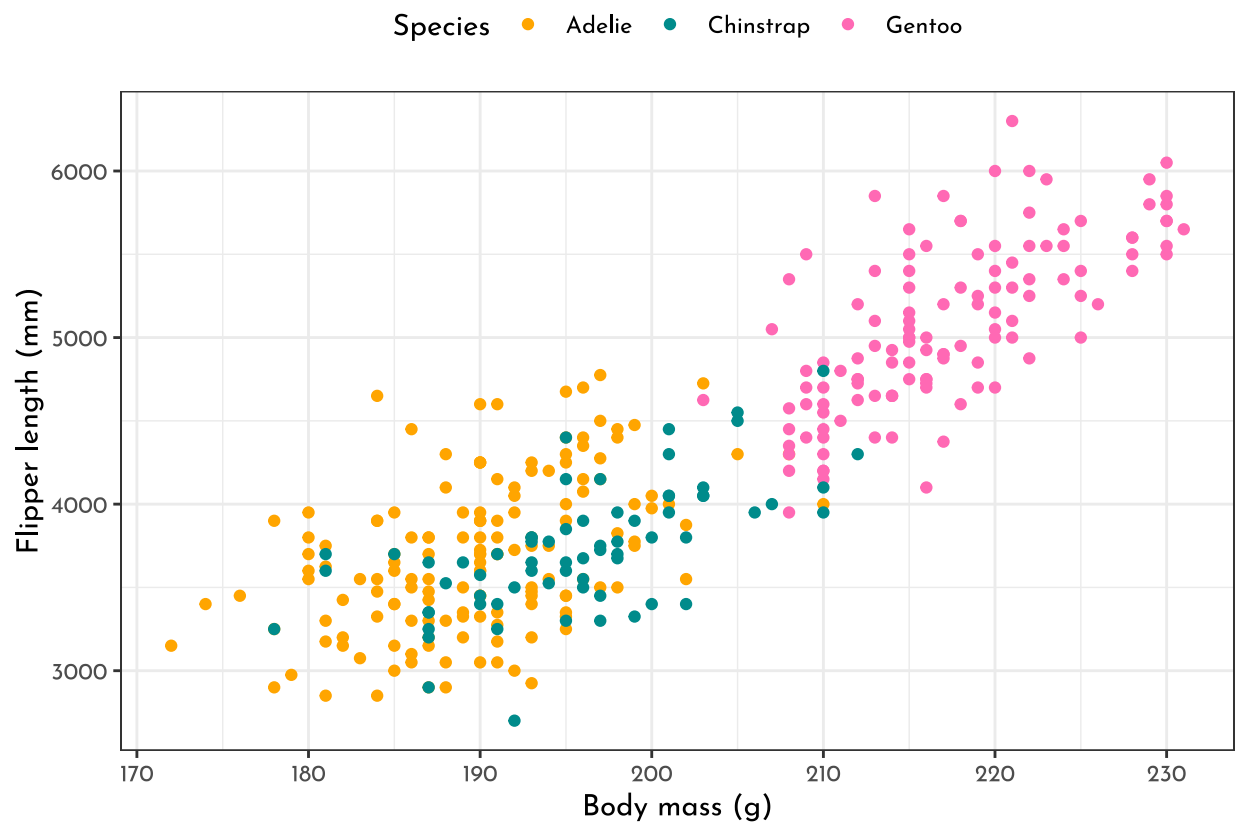


Figure 3: The Palmer penguin figure from the slides, an example of plotting in ggplot2. In this version we have changed the theme, colors and font, and moved the legend to the top.