## DataVisualization

## 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:

## summary(cars)

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

## **Including Plots**

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

install.packages("tidyverse") library(tidyverse) #install remotes install.packages("remotes")

 $\label{lem:palmerpenguins} \begin{tabular}{ll} $\#$ install data remotes::install\_github("allisonhorst/palmerpenguins") library(palmerpenguins) glimpse(penguins) \\ \#$ exploring import unique(penguinsspecies) $unique(penguins)$ island) \\ \end{tabular}$ 

#Penguin size plot for each species ggplot(data = penguins, aes(x = flipper\_length\_mm, y = body\_mass\_g)) + geom\_point(aes(color = species, shape = species), size = 3, alpha = 0.8) + #theme\_minimal() + scale\_color\_manual(values = c("darkorange","purple","cyan4")) + labs(title = "Penguin Size", subtitle = "Flipper Length and Body mass for Antarctic Penguin Species", x = "Flipper Length (mm)", y = "Body Mass (g)", color = "Penguin Species", shape = "Penguin species") + theme minimal()

#Penguin size plot for each island and species ggplot(data = penguins, aes(x = flipper\_length\_mm, y = body\_mass\_g)) + geom\_point(aes(color = island, shape = species), size = 3, alpha = 0.8) + #theme\_minimal() + scale\_color\_manual(values = c("darkorange","purple","cyan4")) + labs(title = "Penguin Size", subtitle = "Flipper Length and Body mass for each Species and Island", x = "Flipper Length (mm)", y = "Body Mass (g)", color = "Penguin Island", shape = "Penguin species") + theme\_minimal()