PalmerPenguinsData

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.

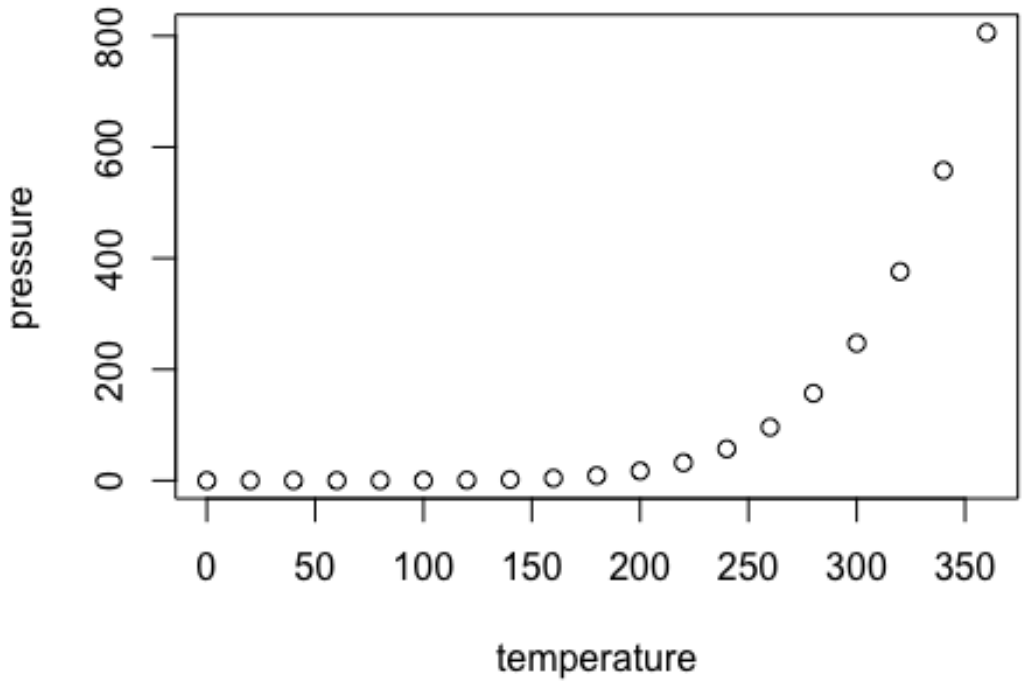
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      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:



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

#Data library(remotes) remotes::install_github("allisonhorst/palmerpenguins") library(palmerpenguins) library(tidyverse)

#Variable class class(penguins$sex)$class(penguins$body_mass_g)

#Variable levels levels(penguins$sex)

summary(penguins) summary(penguins$sex)$summary(penguins$body_mass_g)

#Missing Data is.na(penguins) is.na(penguins$flipper_length_mm)$is.na(penguins$sex)

#Analysis with NA value penguins %>% group_by(island) %>% summarise(mean(bill_length_mm))

#NA counts bar graph penguins %>% #group_by(species) %>% select(everything()) %>% summarise_all(funs(sum(is.na(.)))) %>% pivot_longer(cols = 1:7, names_to = 'columns', values_to = 'NA_count') %>% arrange(desc(NA_count)) %>% ggplot(aes(y = columns, x = NA_count)) + geom_col(fill = '#F0E442') + geom_label(aes(label = NA_count)) + # scale_fill_manual(values = c("darkorange","purple","cyan4")) + theme_minimal() + labs(title = "N/A Count for Palmer's Penguins")

#Bar Graph Counts penguins %>% count(species) %>% ggplot() + geom_col(aes(x = species, y = n, fill = species)) + geom_label(aes(x = species, y = n, label = n)) + scale_fill_manual(values = c("#009E73","#CC79A7","gray")) + theme_minimal() + labs(title = "Penguin Species Count")

#Class for all seven variables class(penguins$species)$class(penguins$island) class(penguins$bill_length_mm)$class(penguins$bill_depth_mm) class(penguins$flipper_length_mm)$class(penguins$body_mass_g) class(penguins$sex)

#Level for all seven variables levels(penguins$species)$levels(penguins$island) levels(penguins$bill_length_mm)$levels(penguins$bill_depth_mm) levels(penguins$flipper_length_mm)$levels(penguins$body_mass_g) levels(penguins$sex)

#Summary for all seven variables summary(penguins$sex)$summary(penguins$island) summary(penguins$species)$summary(penguins$bill_length_mm) summary(penguins$bill_depth_mm)$summary(penguins$flipper_length_mm) summary(penguins$body_mass_g)