Cyclistic Case Study

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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.

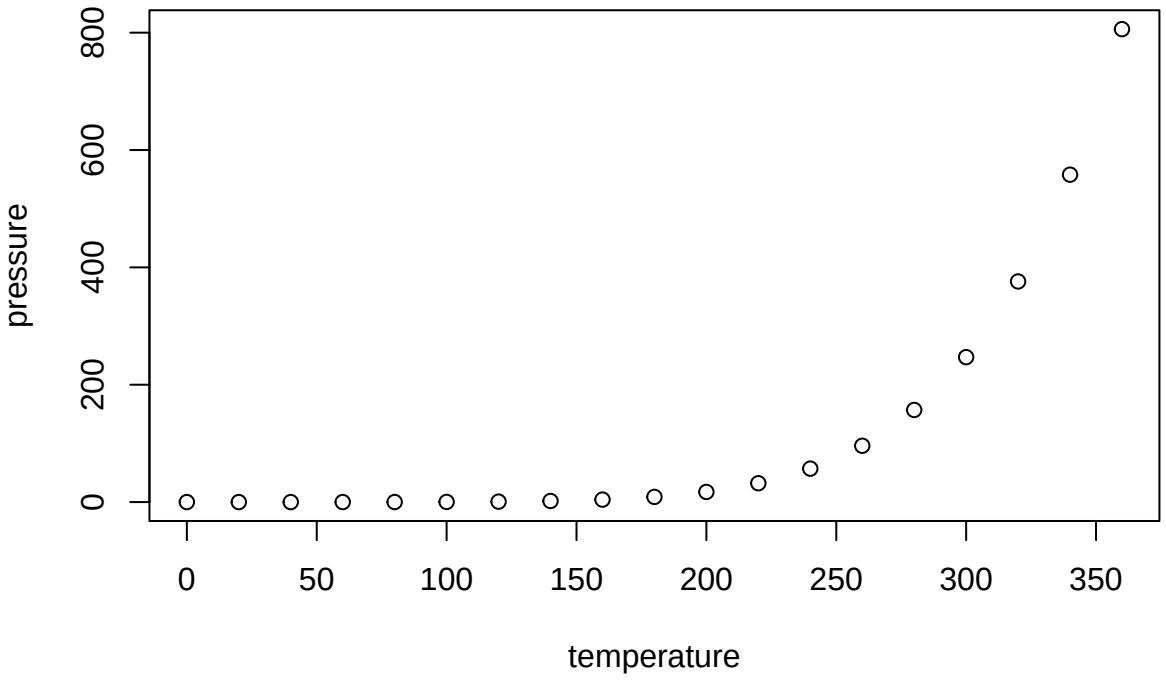
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
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.

library(tidyverse) cyclistic_data <- read_csv("cleaned_cyclistic_data.csv")

glimpse(cyclistic_data) summary(cyclistic_data) head(cyclistic_data)

cyclistic_data <- cyclistic_data %>% mutate(ride_length = difftime(ended_at, started_at, units = "mins"))

cyclistic_data <- cyclistic_data %>% filter(ride_length > 0)

cyclistic_data %>% group_by(member_casual) %>% summarise(average_ride_length = mean(ride_length, na.rm = TRUE))

cyclistic_data %>% count(rideable_type, member_casual)

ggplot(cyclistic_data, aes(x = member_casual)) + geom_bar(fill = "steelblue") + labs(title = "Ride Count by Member Type", x = "Member Type", y = "Ride Count")

cyclistic_data %>% mutate(weekday = wday(started_at, label = TRUE)) %>% group_by(member_casual, weekday) %>% summarise(average_ride_length = mean(ride_length, na.rm = TRUE)) %>% ggplot(aes(x = weekday, y = average_ride_length, fill = member_casual)) + geom_col(position = "dodge") + labs(title = "Average Ride Length by Weekday", y = "Average Ride Length (mins)", x = "Weekday")

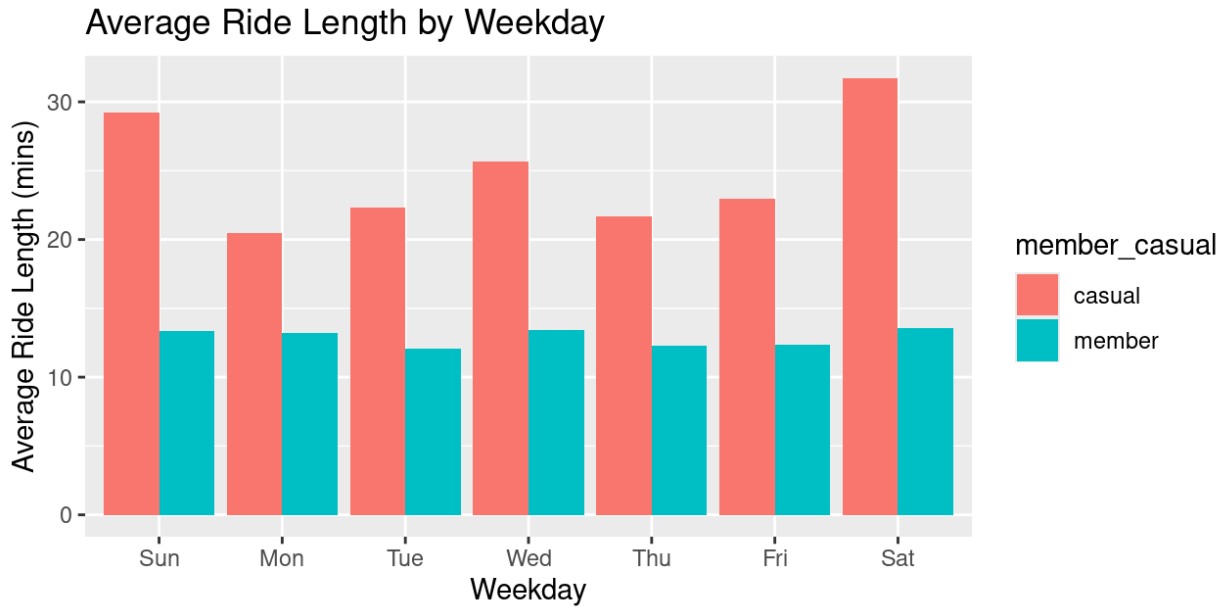


Figure 1: Average Ride Length