Capstone - Bike

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Load packages

```
#install.packages("tidyverse") - Already installed on the machine
library(tidyverse)
```

```
## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
## ✔ dplyr     1.1.3     ✔ readr     2.1.4
## ✔ forcats   1.0.0     ✔ stringr   1.5.0
## ✔ ggplot2   3.4.3     ✔ tibble    3.2.1
## ✔ lubridate 1.9.3     ✔ tidyr     1.3.0
## ✔ purrr     1.0.2
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✖ dplyr::filter() masks stats::filter()
## ✖ dplyr::lag()    masks stats::lag()
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts
to become errors
```

```
# install.packages("readr") - Already installed on the machine
library(readr)
library(ggplot2)
```

Read in data

```
Clean_Bike_Data <- read.csv("NEWcase1.csv")
#head(Clean_Bike_Data)
```

Coverting the time to minutes on how many times a member was riding.

```
Member_Trip_Sum <- sum(Clean_Bike_Data %>%
                         filter(member_casual == "member")%>%
                         select(Trip_Duration_Minutes))
print(Member_Trip_Sum)
```

```
## [1] 927533
```

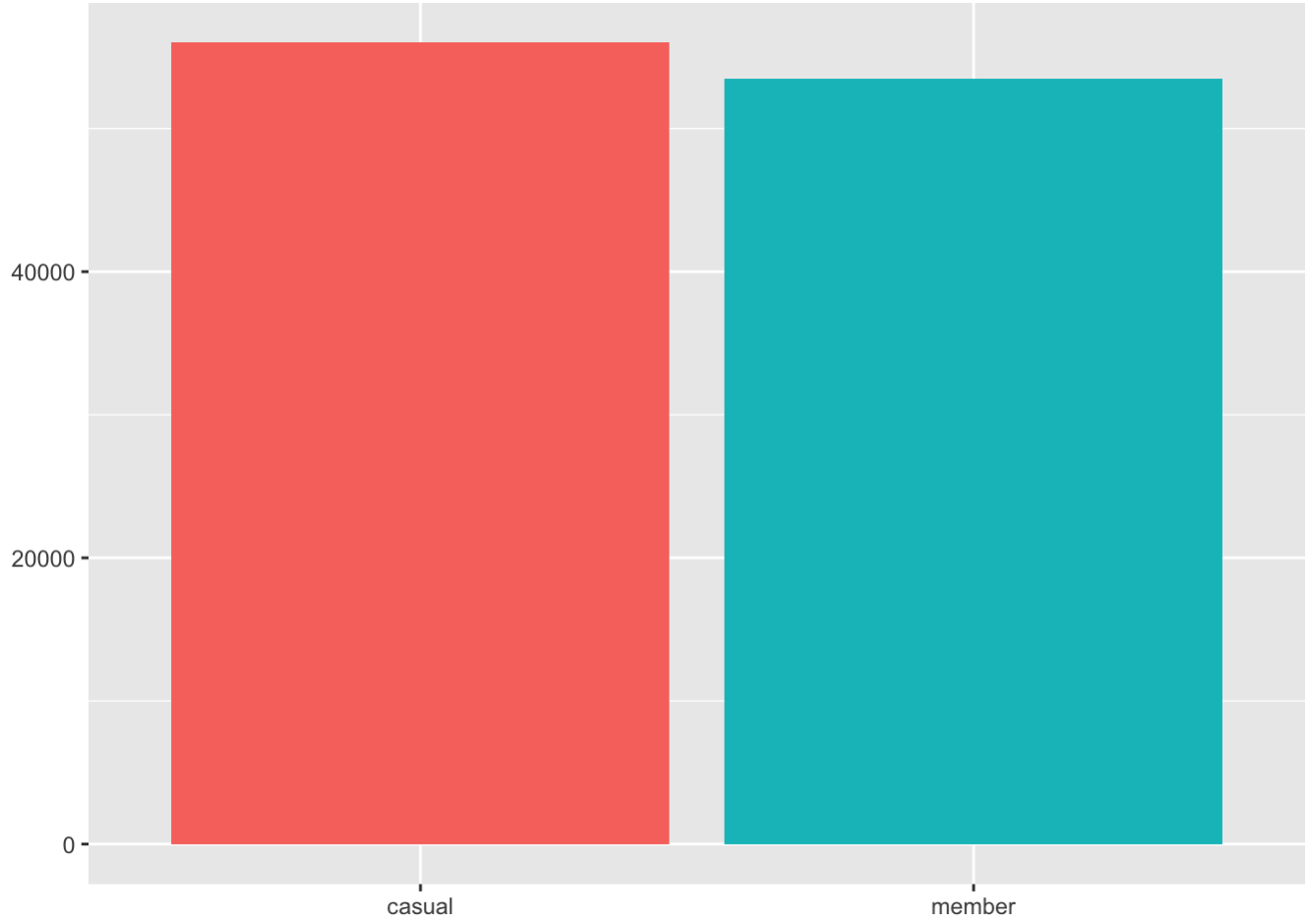
Coverting the time to minutes on how many times a casual was riding.

```
Casual_Trip_Sum <- sum(Clean_Bike_Data %>%
                          filter(member_casual =="casual")%>%
                          select(Trip_Duration_Minutes))
print(Casual_Trip_Sum)
```

```
## [1] 1790224
```

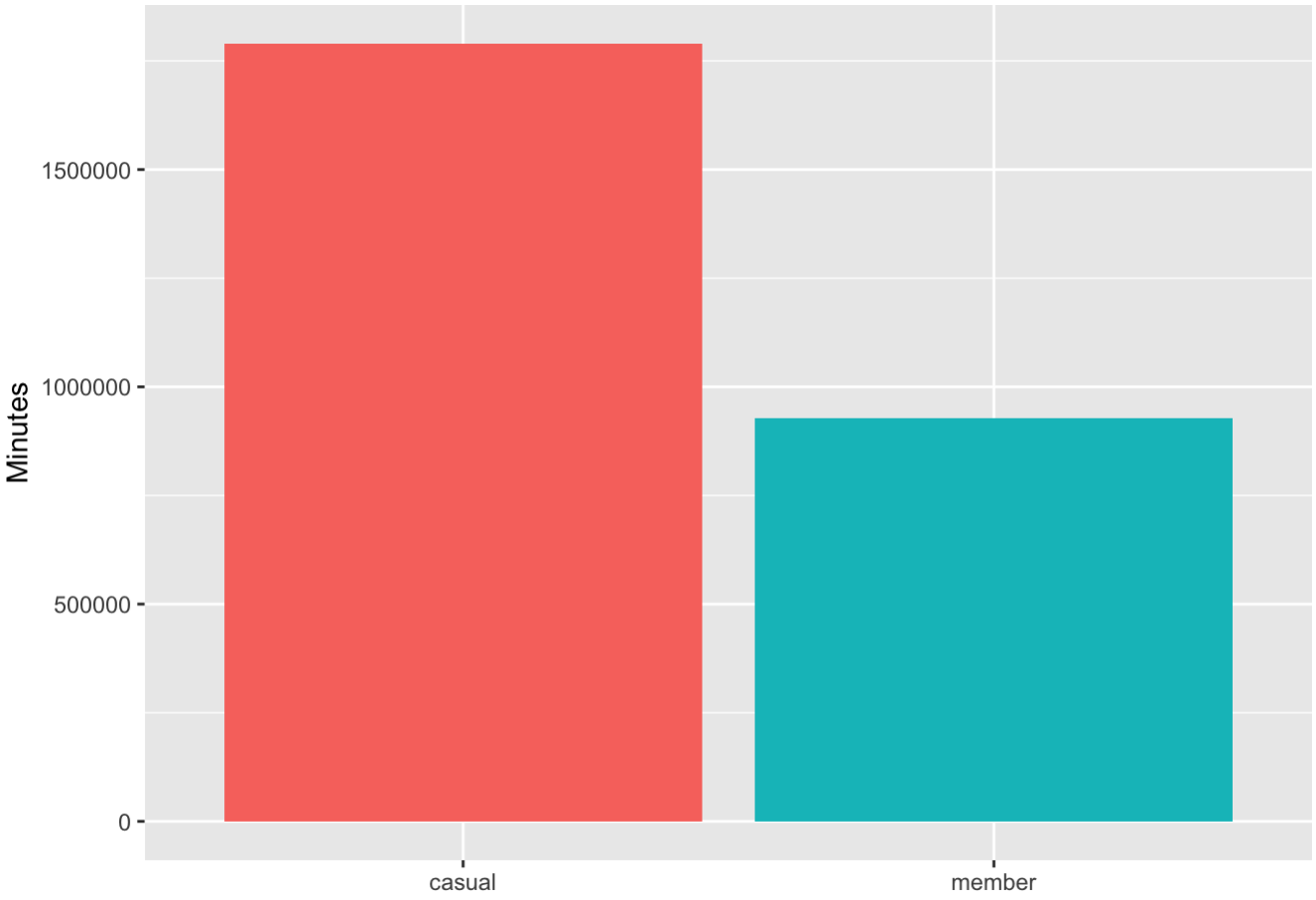
How many times a member and a casual rider used the bike.

```
ggplot(data = Clean_Bike_Data)+
  geom_bar(mapping = aes(x=member_casual, fill=member_casual))+
  theme(axis.title.x = element_blank(), axis.title.y = element_blank(), legend.position
= "none")
```



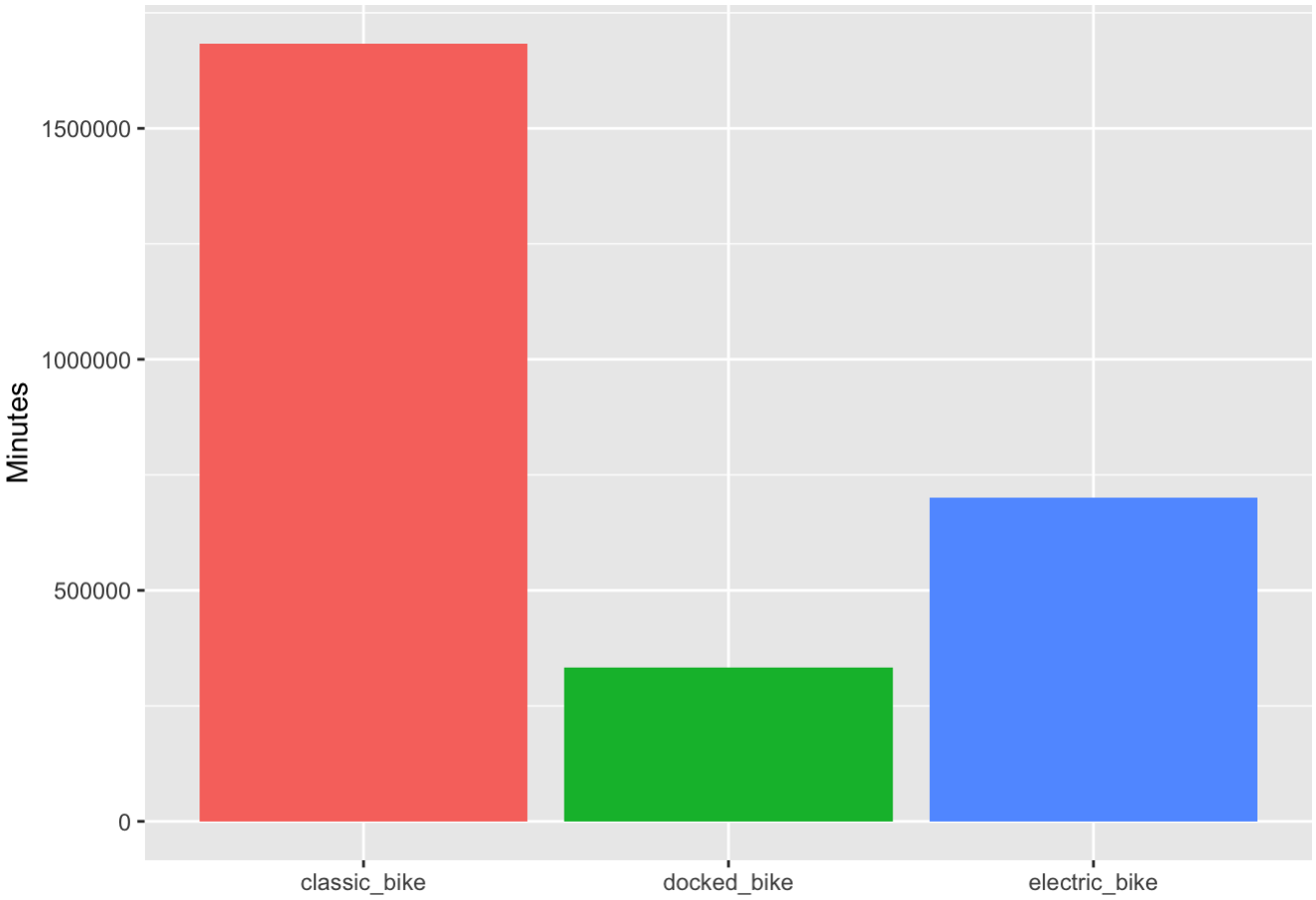
How many minutes a casual and a member ride.

```
ggplot(data = Clean_Bike_Data)+
  geom_bar(mapping = aes(x=member_casual, weight=Trip_Duration_Minutes, fill=member_casu
al))+
  labs(y = "Minutes", x=" ")+
  theme(legend.position = "none")
```



For how many minutes does each type of bike is being utuilized

```
ggplot(data = Clean_Bike_Data)+
  geom_bar(mapping = aes(x=rideable_type, weight=Trip_Duration_Minutes, fill=rideable_ty
pe))+
  labs(y = "Minutes", x=" ")+
  theme(legend.position = "none")
```



New table for the different bike types.

```
Bike_Types <-Clean_Bike_Data %>%
  group_by(rideable_type)%>%
  count(member_casual)

head(Bike_Types)
```

```
## # A tibble: 5 × 3
## # Groups:   rideable_type [3]
##   rideable_type member_casual     n
##   <chr>         <chr>         <int>
## 1 classic_bike  casual        31280
## 2 classic_bike  member        34061
## 3 docked_bike   casual         5690
## 4 electric_bike casual        19037
## 5 electric_bike member        19445
```

Changes the column name from n.

```
colnames(Bike_Types)[colnames(Bike_Types)=="n"] <- "Count"

head(Bike_Types)
```

```
## # A tibble: 5 × 3
## # Groups:   rideable_type [3]
##   rideable_type member_casual Count
##   <chr>         <chr>         <int>
## 1 classic_bike  casual        31280
## 2 classic_bike  member        34061
## 3 docked_bike   casual         5690
## 4 electric_bike casual        19037
## 5 electric_bike member        19445
```

Number of times member and casula used different bikes

```
ggplot(data = Bike_Types)+
  geom_col(mapping = aes(x=rideable_type, y=Count, fill=rideable_type))+
  facet_wrap(~member_casual)+
  labs(y = " ", x=" ", fill=" ")+
  theme(axis.text.x = element_blank())
```