Track 1 Bikes Case Study- Sept

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January 25, 2022 - January 27, 2022

Cyclistic Bike Data

September

```
Sep <- read_csv("202109-divvy-tripdata.csv")
Sep <- Sep %>%
  mutate(Sep, trip_duration9 = as.duration(ended_at - started_at))
Sep_filtered <- Sep %>%
    select(ride_id, rideable_type, started_at, ended_at, member_casual,
trip_duration9) %>%
    filter(trip_duration9 > 5)
```

In September, there were 754623 trips.

Trips

```
Sep_members <- Sep_filtered %>%
    filter(member_casual == "member")
Sep_casual <- Sep_filtered %>%
     filter(member_casual == "casual")
```

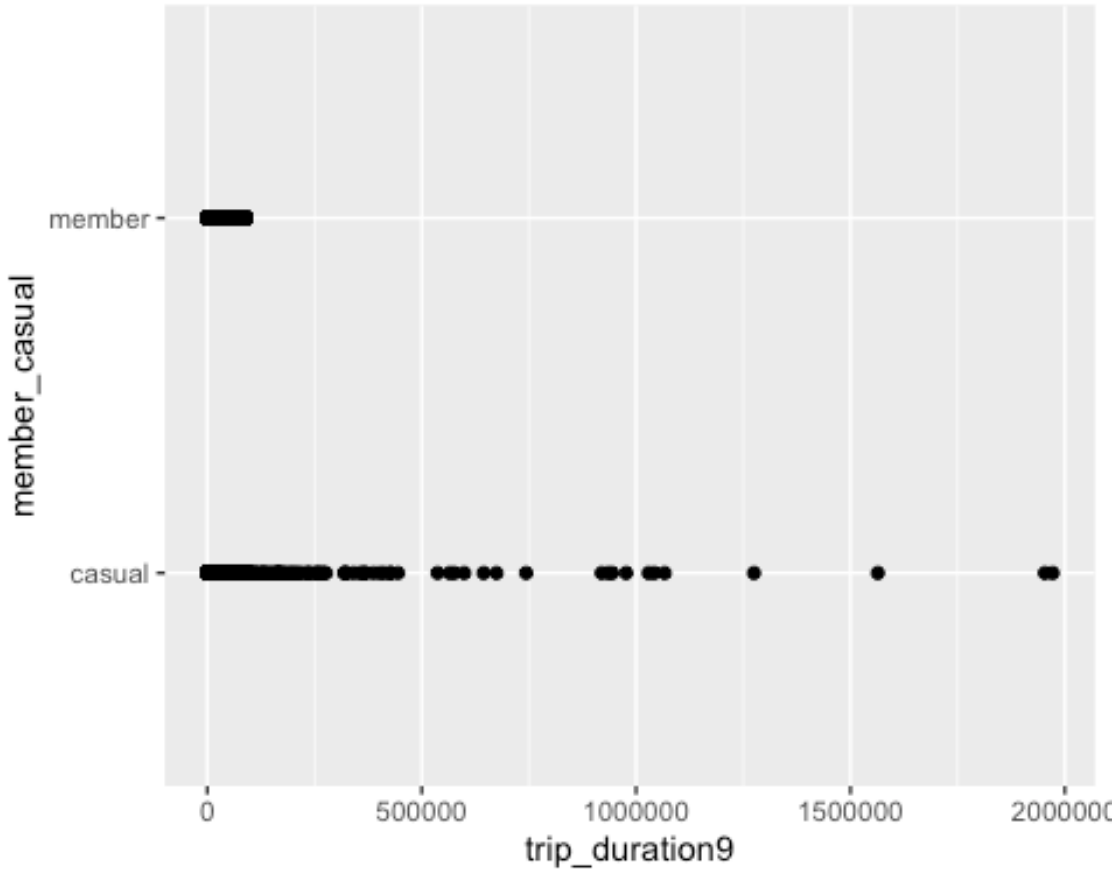
In September, 363379 trips were by casual users, and 391244 were by annual members.

Trip Length

```
Sep_trip_avg <- (mean(Sep_filtered$trip_duration9))
Sep_m_trip_avg <- (mean(Sep_members$trip_duration9))
Sep_c_trip_avg <- (mean(Sep_casual$trip_duration9))
```

The average trip in September was 1233 seconds (20 minutes). For casual riders, the average ride was 1671 seconds (27 minutes). For members, the average ride was 826 seconds (13.8 minutes).

```
ggplot(data = Sep_filtered, aes(x = trip_duration9, y = member_casual)) +
    geom_point()
```



Max Trip and Min Trip

Before filtering, the shortest trip by members was -423 seconds.

For casual riders, the shortest trip was -56 seconds.

The longest trip for members was 89998 seconds. The longest trip for casual riders is 1971512 seconds about 3.1 weeks.

```
Sep_c_trip_max <- (max(Sep_casual$trip_duration9))
Sep_m_trip_max <- (max(Sep_members$trip_duration9))
Sep_c_trip_min <- (min(Sep_casual$trip_duration9))
Sep_m_trip_min <- (min(Sep_members$trip_duration9))
```

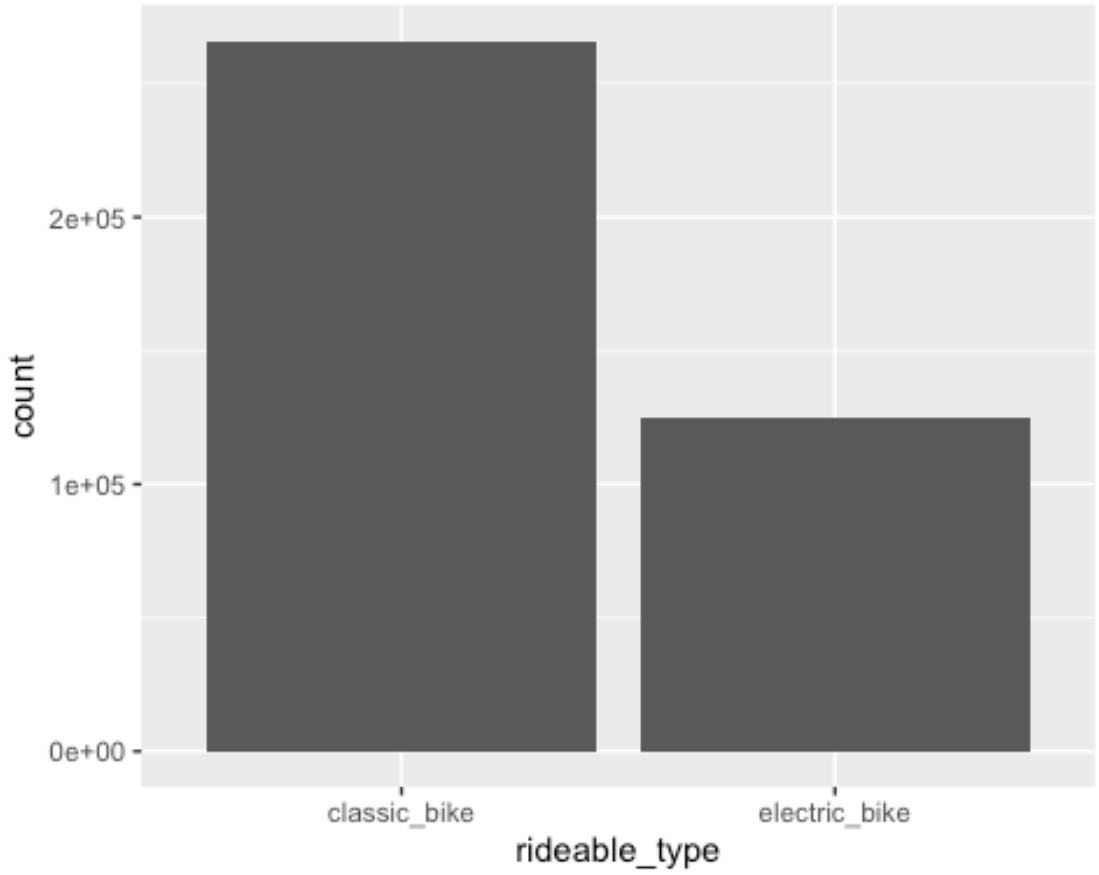
Bike Type

```
Sep_c_elec <- length(which(Sep_casual$rideable_type == "electric_bike"))
Sep_c_classic <- length(which(Sep_casual$rideable_type == "classic_bike"))
Sep_c_docked <- length(which(Sep_casual$rideable_type == "docked_bike"))
```

Casual riders took 195183 trips on classic bikes, 132902 trips on electric bikes, and 35294 trips on docked bikes.

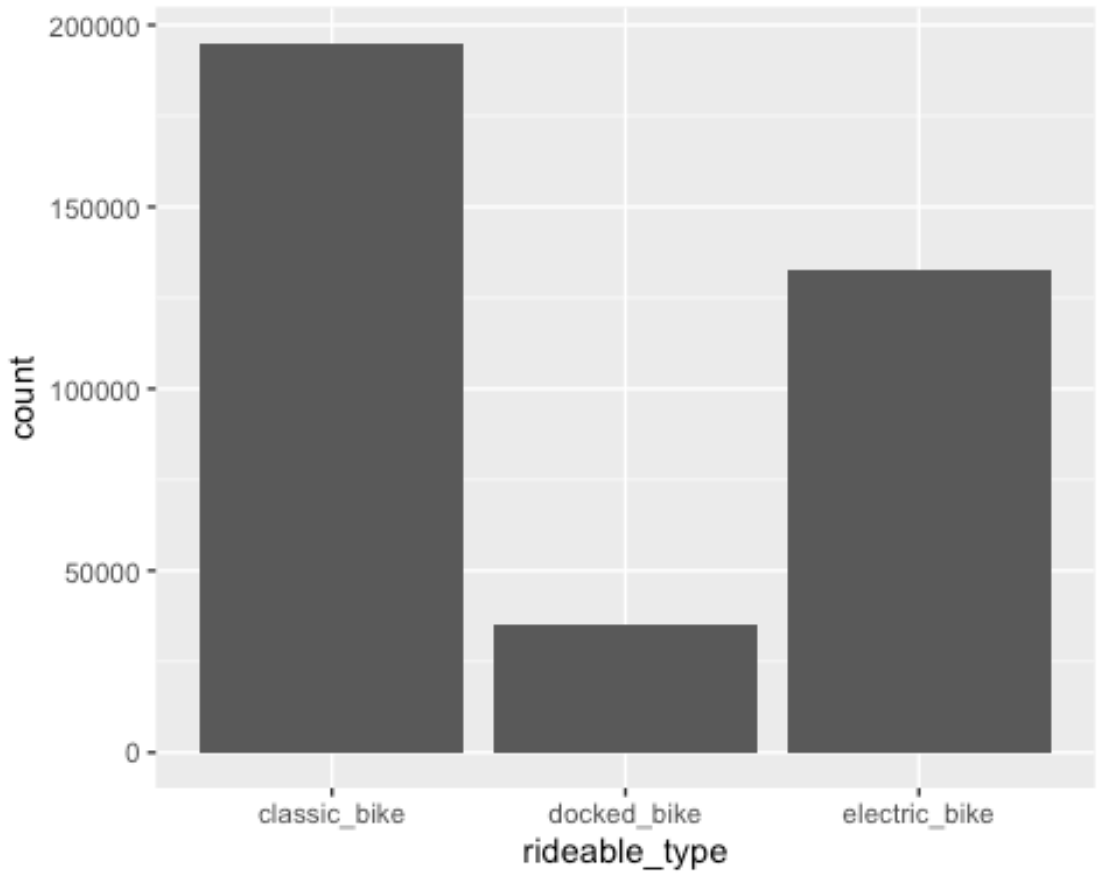
```
Sep_m_elec <- length(which(Sep_members$rideable_type == "electric_bike"))
Sep_m_classic <- length(which(Sep_members$rideable_type == "classic_bike"))
```

```
Sep_m_docked <- length(which(Sep_members$rideable_type == "docked_bike"))
ggplot(data = Sep_members, aes(x = rideable_type)) +
     geom_bar()
```



Annual members took 266086 trips on classic bikes, 125158 on electric bikes, and 0 on docked bikes.

```
ggplot(data = Sep_casual, aes(x = rideable_type)) +
     geom_bar()
```


200000
150000
100000
50000
0
count
classic_bike
docked_bike
electric_bike
rideable_type