

# Track 1 Bikes Case Study- October

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## Cyclistic Bike Data

### October

```
Oct <- read_csv("202110-divvy-tripdata.csv")
Oct <- Oct %>%
  mutate(trip_duration10 = as.duration(ended_at - started_at))
Oct_filtered <- Oct %>%
  select(ride_id, rideable_type, started_at, ended_at, member_casual,
  trip_duration10) %>%
  filter(trip_duration10 > 5)
```

In October, there were 630022 trips.

### Trips

```
Oct_members <- Oct_filtered %>%
  filter(member_casual == "member")
Oct_casual <- Oct_filtered %>%
  filter(member_casual == "casual")
```

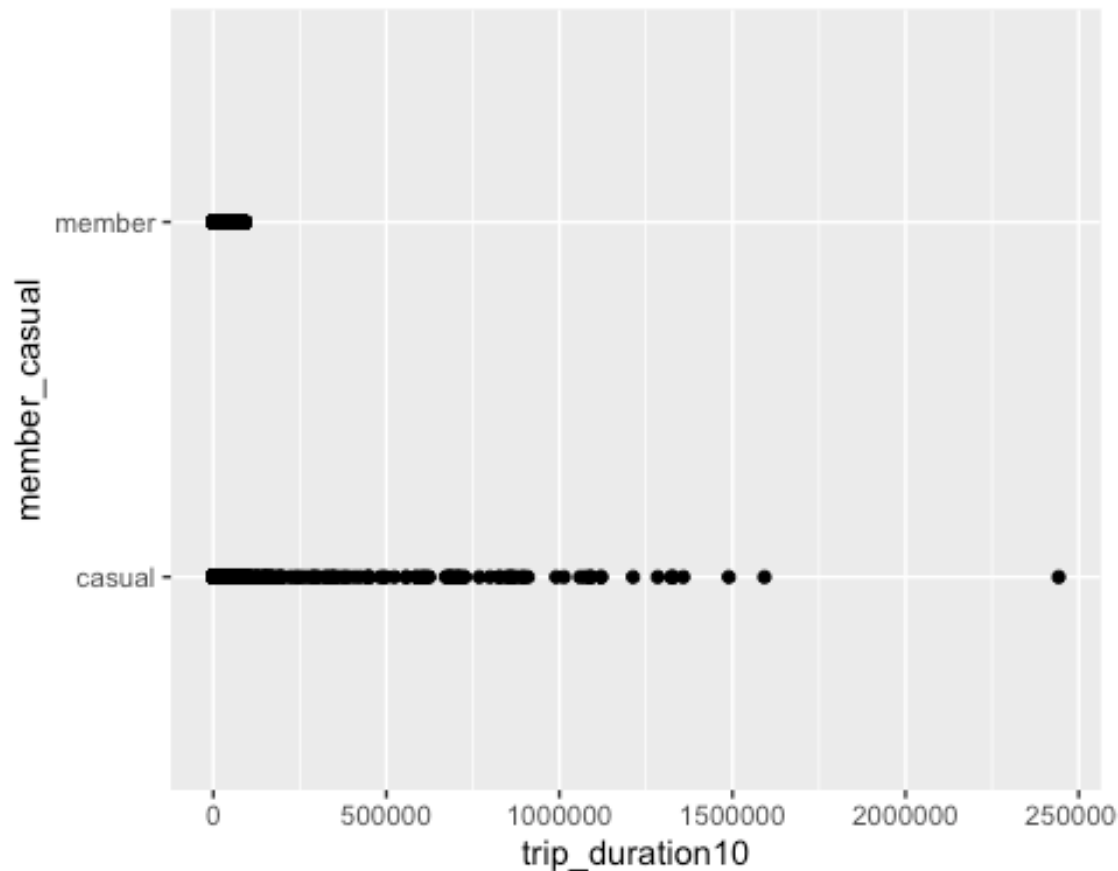
In October, 256935 trips were by casual users and 373087 were by annual members.

### Trip Length

```
Oct_trip_avg <- (mean(Oct_filtered$trip_duration10))
Oct_m_trip_avg <- (mean(Oct_members$trip_duration10))
Oct_c_trip_avg <- (mean(Oct_casual$trip_duration10))
```

The average trip in October was 1147 seconds (19 minutes). For casual riders, the average ride was 1722 seconds (28 minutes). For members, the average ride was 751 seconds (12.5 minutes).

```
ggplot(data = Oct_filtered, aes(x = trip_duration10, y = member_casual)) +
  geom_point()
```



### Max Trip and Min Trip

Before filtering, the shortest trip by members was 0 seconds.

For casual riders, the shortest trip was 0 seconds.

The longest trip for members was 89997 seconds. The longest trip for casual riders is 2442301 seconds about 4.04 weeks.

```
Oct_c_trip_max <- (max(Oct_casual$trip_duration10))
Oct_m_trip_max <- (max(Oct_members$trip_duration10))
Oct_c_trip_min <- (min(Oct_casual$trip_duration10))
Oct_m_trip_min <- (min(Oct_members$trip_duration10))
```

### Bike Type

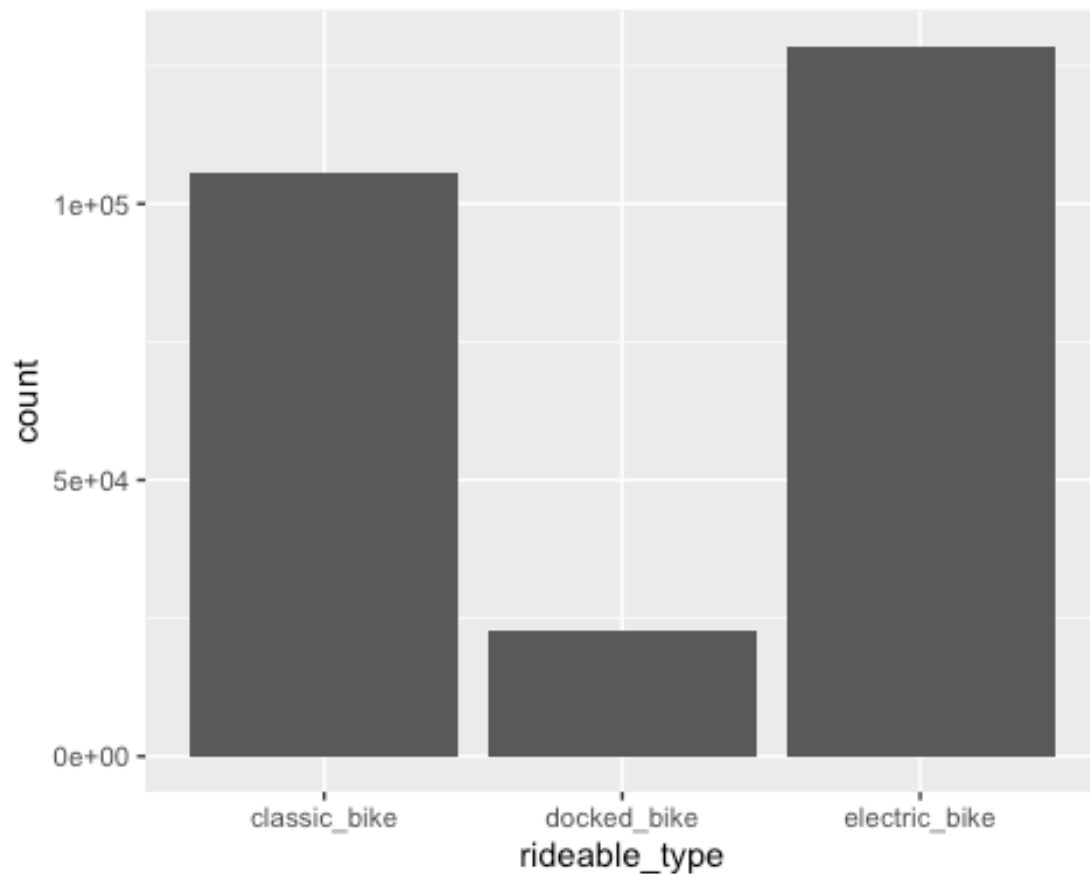
```
Oct_c_elec <- length(which(Oct_casual$rideable_type == "electric_bike"))
Oct_c_classic <- length(which(Oct_casual$rideable_type == "classic_bike"))
Oct_c_docked <- length(which(Oct_casual$rideable_type == "docked_bike"))
```

Casual riders took 105465 trips on classic bikes, 128612 trips on electric bikes, and 22858 trips on docked bikes.

```
Oct_m_elec <- length(which(Oct_members$rideable_type == "electric_bike"))
Oct_m_classic <- length(which(Oct_members$rideable_type == "classic_bike"))
Oct_m_docked <- length(which(Oct_members$rideable_type == "docked_bike"))
```

Annual members took 209968 trips on classic bikes, 163119 on electric bikes, and 0 on docked bikes.

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



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

