



# Capstone Deliverable

Simon Park



# **Business Task**

Increase annual membership through conversion of casual riders to annual members



# Stakeholders

- Cyclistic
- Customers
- City of Chicago



# Data

## 2019 Quarter 1 Data

Structure:

- "trip\_id"
- "start\_time"
- "end\_time"
- "bikeid"
- "tripduration"
- "from\_station\_id"
- "from\_station\_name"
- "to\_station\_id"
- "to\_station\_name"
- "usertype"
- "gender"
- "birthyear"

## 2020 Quarter 1 Data

Structure:

- "ride\_id"
- "rideable\_type"
- "started\_at"
- "ended\_at"
- "start\_station\_name"
- "start\_station\_id"
- "end\_station\_name"
- "end\_station\_id"
- "start\_lat"
- "start\_lng"
- "end\_lat"
- "end\_lng"
- "member\_casual"



# Data Cleaning

- See attached R script file
- Trimmed Whitespace
- Deleted empty rows
- Synchronized column names
- Trimmed entries with very long trip durations



## Analysis

- Average ride\_length of all trips is 18 min 36 sec (no trimming)
- Max ride\_length of all trips is 108 days, 14 hours, 30 min, 24 sec
- Many customers forget to dock bikes after use

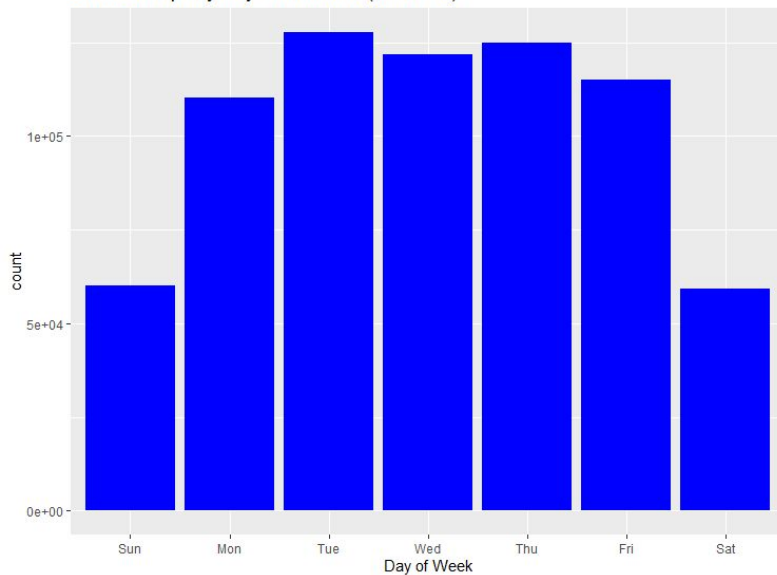


## Analysis Pt2

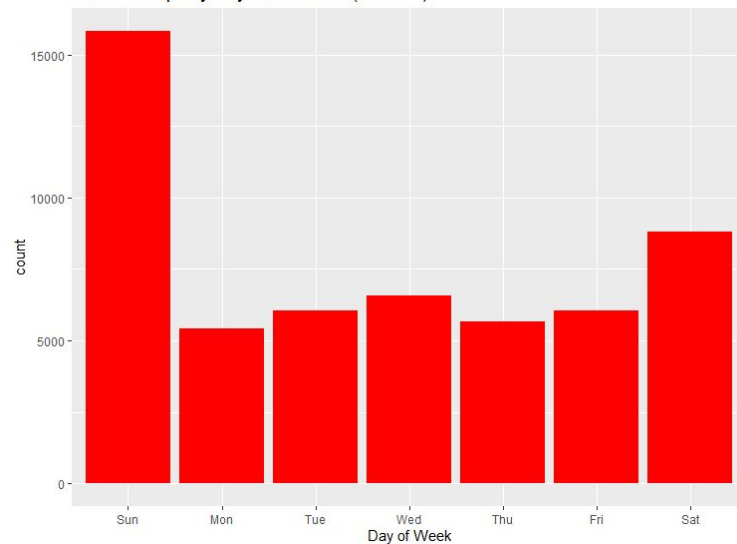
- Most members ride on weekdays
- Members on average ride ~11 min
- Members ride length slightly increase on weekends
- Most casual riders ride on weekends
- Casual riders on average ride ~40 min
- Casual riders' ride length peak on weekends and plunge on Mondays

# Customer Activity by Day

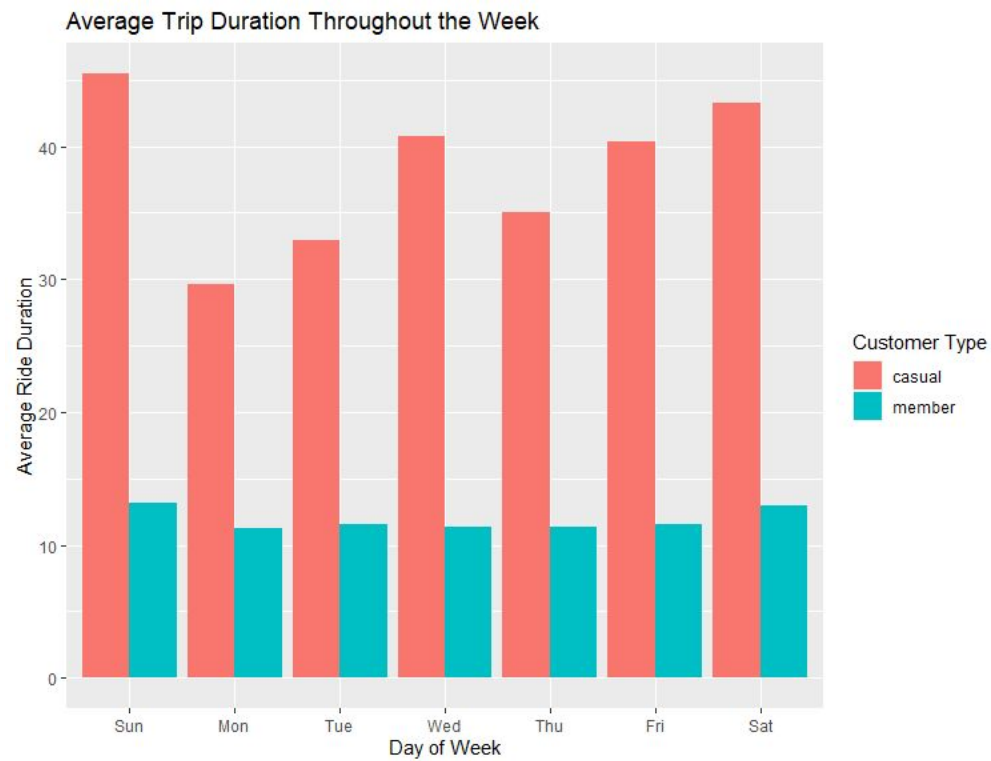
Count of Trips by Day of the Week (Members)



Count of Trips by Day of the Week (Casuals)







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# Recommendations



## Look Further Into Repeating Casual Riders

- Casual Riders are likely residents that commute on some other transportation (car, train, etc)
  - Need data to prove
- Start a marketing campaign to repeating customers to convert to members



## Make Commuting On Bike More Appealing

- If Casual Riders are proven to be commute in different ways, persuade them to commute by bike
- Start a marketing campaign to increase bike use in the city
  - Health benefits
  - Good for environment
  - etc.



## Build More Bike Infrastructure

- Similar to previous recommendation
- Instead of marketing to people, market to government
- Persuade local government to fund more biking infrastructure
- More infrastructure will make biking more viable and more people will commute by bike