Google Data Analytics Capstone Project

CASE STUDY

CYCLISTIC

A BIKE-SHARE COMPANY

PROVIDING SOLUTION FOR A PROFITABLE MEMBERSHIP CONVERSION

Last Updated : July 2023

SUMMARY OF THE SCENARIO

You are part of the data analyst team in a fictional company Cyclistic, a bike-share company in Chicago. The company believes that it's future success depends on **maximizing the number of annual memberships.**

Your team has to understand how casual riders and annual members use Cyclistic bikes differently. From these insights, your team will design a new marketing strategy to convert casual riders into annual members.

Question 1: "How do annual members and casual riders use Cyclistic bikes differently?"

Question 2: Why casual riders would buy a membership?

Question 3: How digital media could affect their marketing tactics?

Here, the **business task** is to

"Analyze historical bike trip data to identify trends in how annual members and casual members use Cyclistic bikes differently"

DATA SOURCES

■ The data has been made available by Motivate International Inc. ([License](#)) and it satisfies the ROCCC standard which means that it is reliable, original, comprehensive, current and cited.

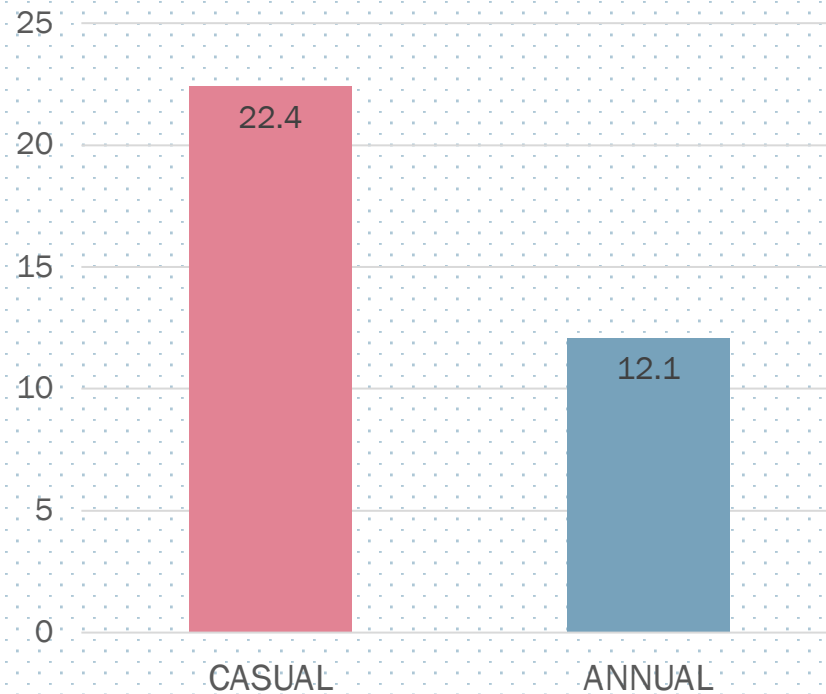■ For this analysis we have selected the data from August 2022 to July 2023.

Total Rides Aug 2022 – July 2023
4.3 M

Average Time Customers used Bike
15.9 mins

Busiest Time	**5 PM**
Busiest Weekday	**SATURDAY**
Busiest Month	**AUGUST**
Popular Membership Type	**ANNUAL**
Popular Bike Type	**CLASSIC BIKE**

ANALYSING THE DATA

Average usage time of Riders (mins)

Bar chart:
- CASUAL: 22.4
- ANNUAL: 12.1

Weekly Usage Of Riders

Stacked bar chart:
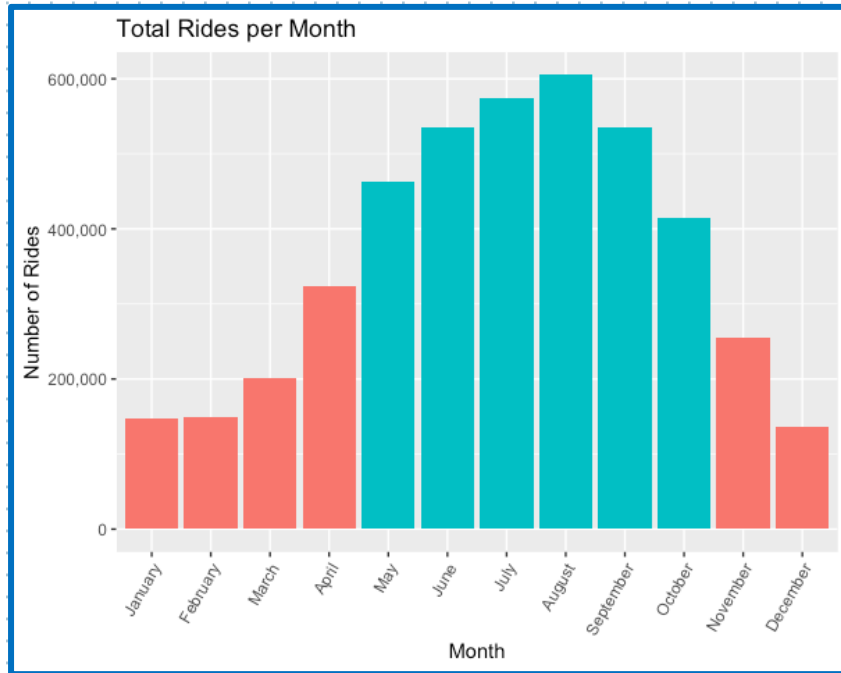- CASUAL: WEEKEND 35.99, WEEKDAY 64.01
- ANNUAL: WEEKEND 23.26, WEEKDAY 76.74

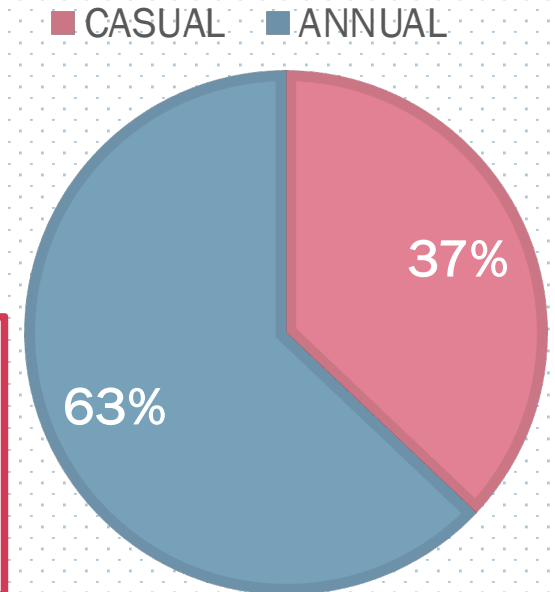Casual riders use bike almost twice longer than Annual riders. Tourists?
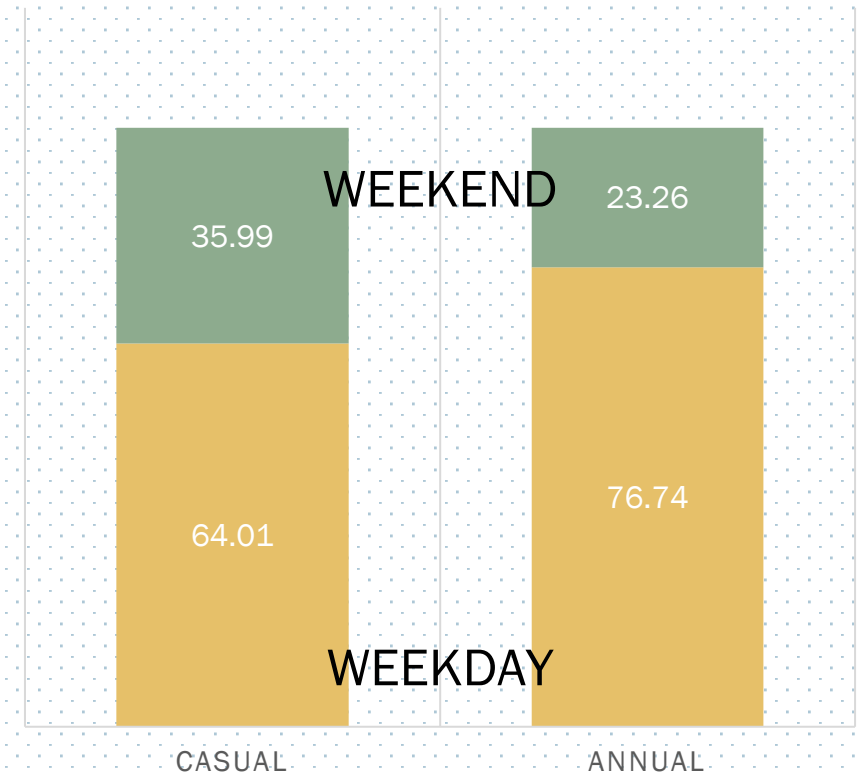
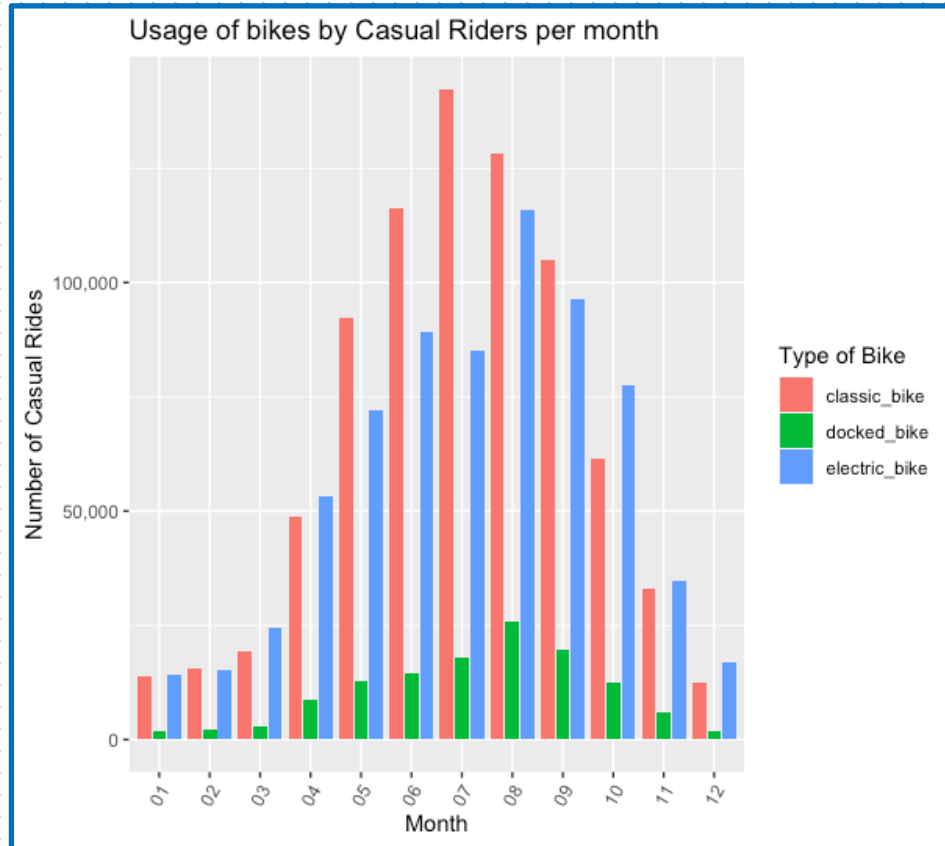Annual riders use bike more during weekdays. Commute to work?

ANALYSING THE DATA

Total Rides per Month

Bikes are used mostly during
May – October (Summer / Autumn)

CASUAL   ANNUAL

37%

63%

63% of the bike riders
are annual members

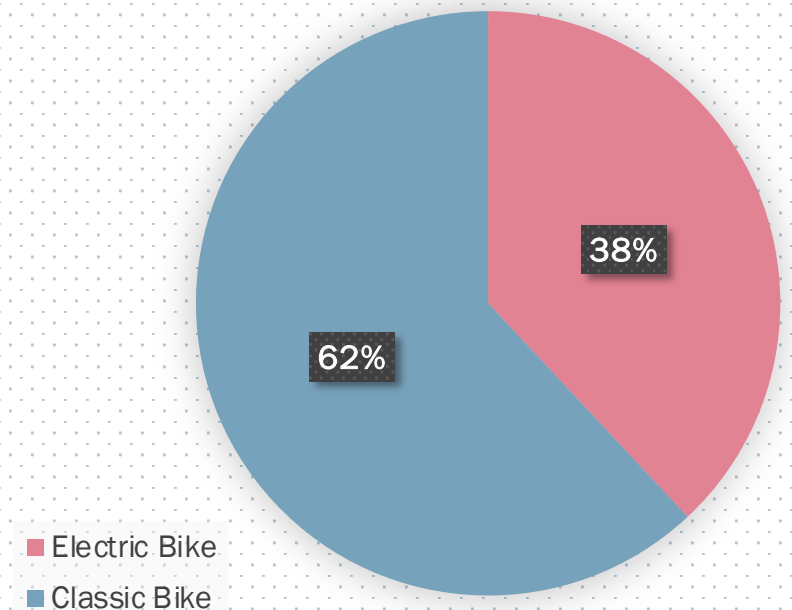# ANALYSING THE DATA – USAGE PER MONTH

Usage of bikes by Casual Riders per month

- **Casual riders** use docked bike less frequently. Tourists?

- Use of electric bike compared to other types increases during Autumn.

49%
43%
8%

- Classic Bike
- Electric Bike
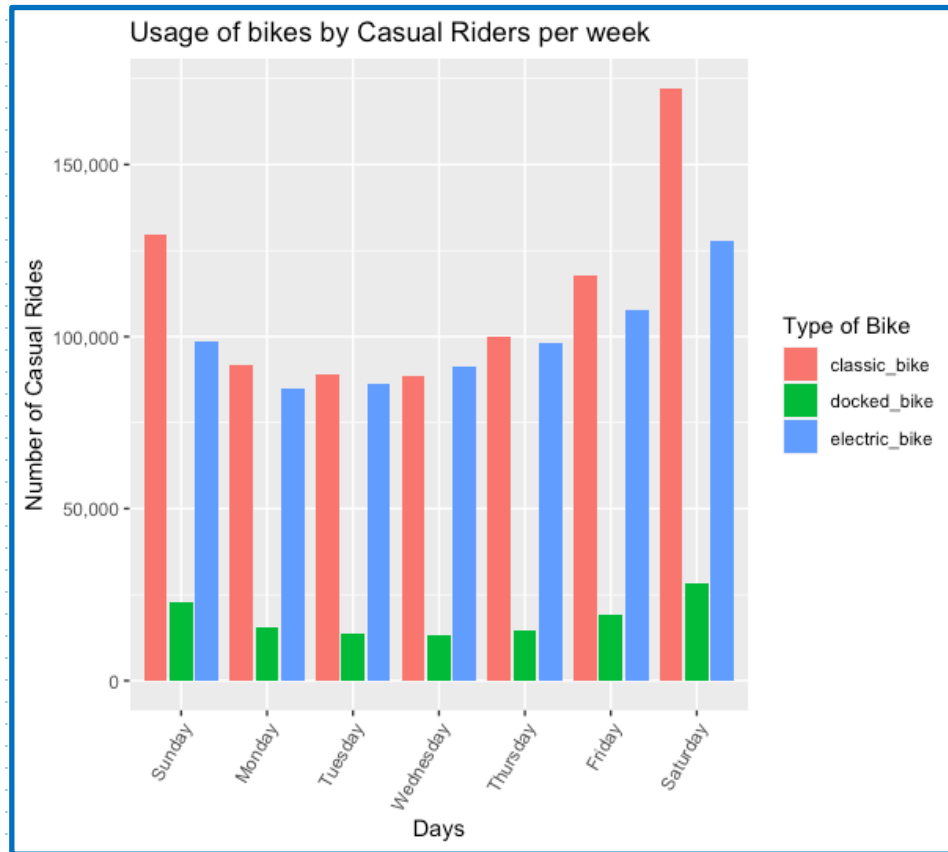- Docked Bike

ANALYSING THE DATA – USAGE PER MONTH
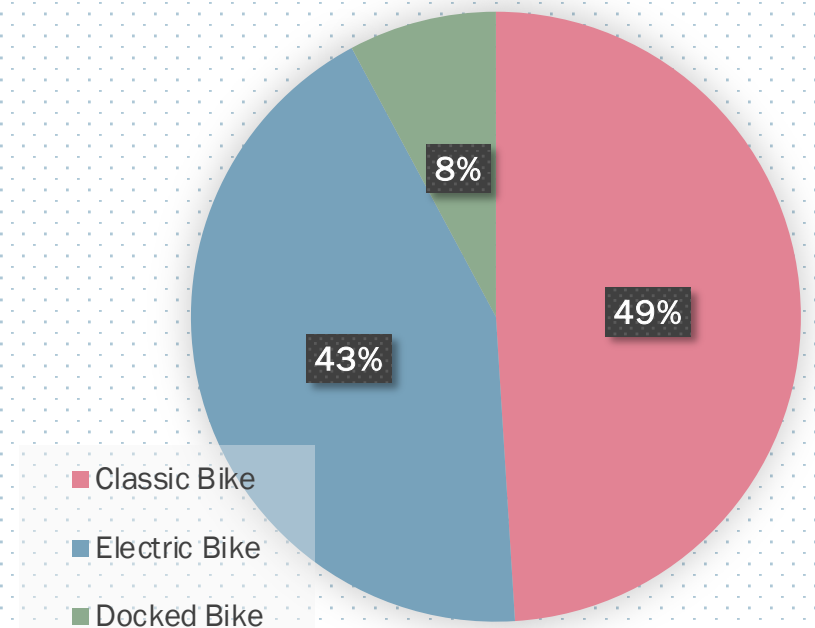
Usage of bikes by Member Riders per month

- **Annual riders** do not use docked bikes.

- Use mostly classic bike

38%

62%

Electric Bike
Classic Bike

ANALYSING THE DATA – USAGE PER WEEK

Usage of bikes by Casual Riders per week

Usage of bikes by Member Riders per week
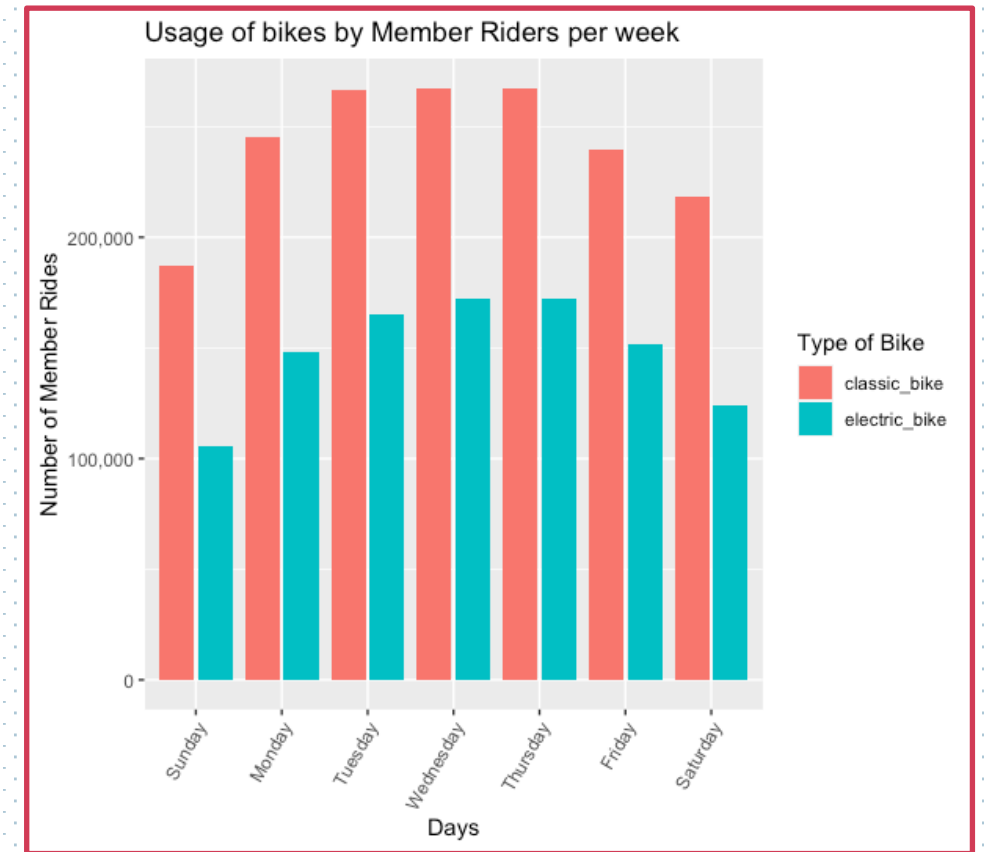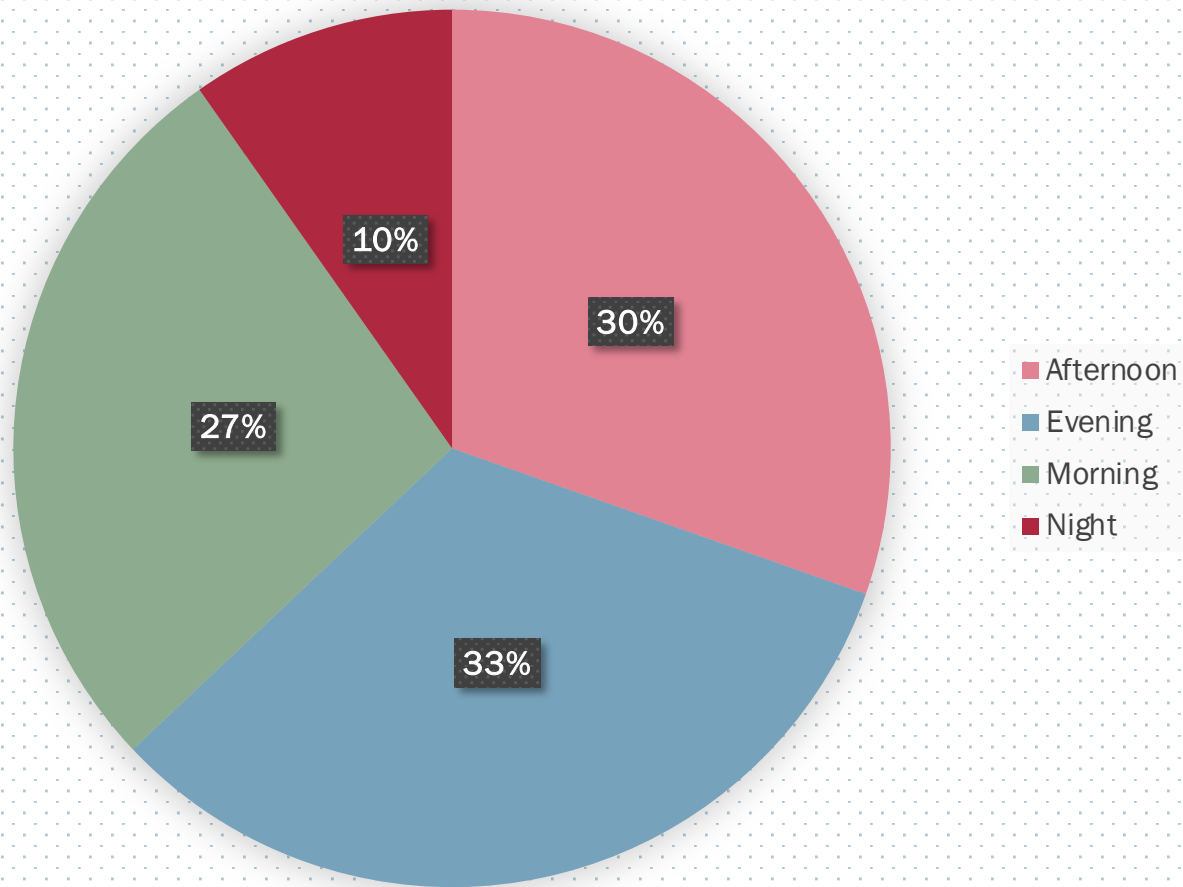
Classic bikes were favoured by casual riders more during weekends.
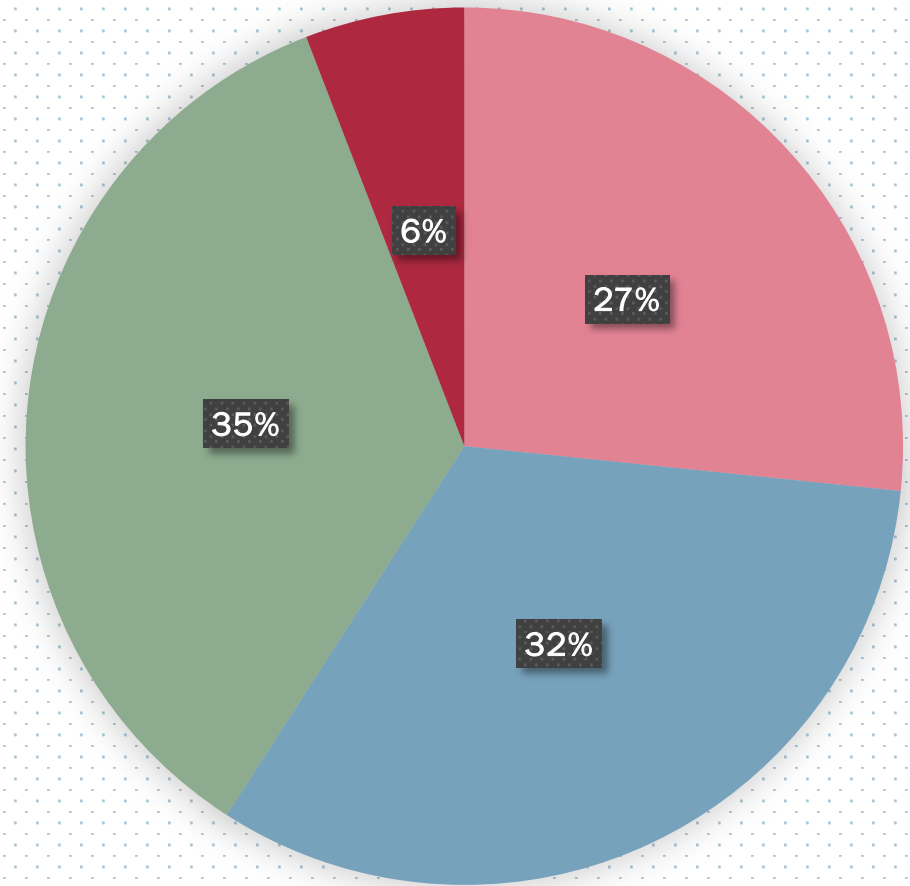
Annual riders use bikes more during weekdays compared to weekends.

ANALYSING THE DATA – USAGE PER DAY

Legend:
- Afternoon
- Evening
- Morning
- Night

Left pie chart (Casual riders):
- 30% Afternoon
- 33% Evening
- 27% Morning
- 10% Night

Right pie chart (Annual riders):
- 27% Afternoon
- 32% Evening
- 35% Morning
- 6% Night

Casual riders use bikes more in the Afternoon and Evening

Annual riders use bikes mostly in the Morning and Evening

SUMMARY OF THE ANALYSIS

1. The average trip duration of ~22 minutes for casual rider is around 2 times higher compared to that of an annual member of ~12 minutes.

2. Annual riders travel more during weekdays, nearly ~ 80% of their total rides, indicating that they may be commuting to work.

3. Bike rides increase during the months of May-October. Nearly 80% of the total rides by casual riders are during this season.

4. Casual riders use classic bikes more frequently and electric bikes are used more during Autumn.

5. The trip duration hits a peak during August and then drops down by December.

RECOMMENDATIONS

1. About 80% of the total casual riders use Cyclistic-bike-share during May to Oct. Marketing team should focus on the top 10 busiest stations and campaign for weekly, monthly and quarterly membership schemes.

2. Promote ads and provide special offers to weekend travelers, late-afternoon travelers and overnight travelers.

3. Special membership packages for weekday casual riders, to promote travelling during weekdays.

4. Design campaigns highlighting health benefits and carbon emission reduction by using bikes regularly.