Let's start with a few key analyses:

1. \*\*Summary Statistics\*\*: Get an overview of the dataset.

2. \*\*Trends Over Time\*\*: Analyze the number of rides over the month.

3. \*\*Ride Duration Analysis\*\*: Calculate the duration of each ride and analyze the distribution.

4. \*\*Member vs Casual Users\*\*: Compare statistics between members and casual users.

### Summary Statistics

Let's begin by calculating summary statistics for the numerical columns.

### Trends Over Time

We can analyze the number of rides per day to identify any patterns or trends.

### Ride Duration Analysis

We'll calculate the duration of each ride and analyze its distribution.

### Member vs Casual Users

We'll compare the ride statistics between members and casual users.

Let's start with the summary statistics and trends over time.

### Summary Statistics

For the latitude and longitude columns:

- \*\*start\_lat\*\* and \*\*end\_lat\*\* have similar ranges and averages, with a standard deviation indicating minor variation.

- \*\*start\_lng\*\* and \*\*end\_lng\*\* are also similar in statistics.

### Trends Over Time

The number of rides per day at the beginning of June 2023:

- June 1: 25,578 rides

- June 2: 28,575 rides

- June 3: 31,794 rides

- June 4: 25,664 rides

- June 5: 22,418 rides

### Next Steps

1. \*\*Ride Duration Analysis\*\*: Analyze the distribution of ride durations.

2. \*\*Member vs. Casual Users\*\*: Compare ride statistics between members and casual users.

Let's proceed with these analyses.

### Ride Duration Analysis

- \*\*Summary Statistics for Ride Duration (in minutes)\*\*:

- \*\*Mean\*\*: 19.98 minutes

- \*\*Standard Deviation\*\*: 166.15 minutes (indicating some very long rides)

- \*\*Minimum\*\*: -60.25 minutes (negative values likely indicate data errors)

- \*\*25th Percentile\*\*: 6.02 minutes

- \*\*Median (50th Percentile)\*\*: 10.62 minutes

- \*\*75th Percentile\*\*: 18.72 minutes

- \*\*Maximum\*\*: 29,465.97 minutes (likely an error)

- The histogram of ride durations shows a peak around 10-20 minutes, with most rides under 60 minutes. Some outliers exist with very high durations.

### Member vs Casual Users

- \*\*Casual Users\*\*:

- Mean Ride Duration: 29.41 minutes

- Standard Deviation: 254.06 minutes

- Median: 12.92 minutes

- 75th Percentile: 23.6 minutes

- \*\*Members\*\*:

- Mean Ride Duration: 13.20 minutes

- Standard Deviation: 30.01 minutes

- Median: 9.33 minutes

- 75th Percentile: 15.9 minutes

Casual users tend to have longer ride durations on average compared to members.

### Next Steps

- Investigate and handle negative and extreme outlier ride durations.

- Analyze ride patterns based on time of day and day of the week.

- Explore spatial patterns by visualizing start and end locations on a map.

What specific analysis or visualization would you like to focus on next?