Cyclist Bike Share

[geo_us_boundaries – BigQuery – Google Calendar API… – Google Cloud console](#)

[new_york_citibike – BigQuery – Google Calendar API… – Google Cloud console](#)

[GSOD – Marketplace – Google Calendar API… – Google Cloud console](#)

Cyclist is partnered with the City of New York to provide shared bikes. Rent bikes for customers.

Customer Growth Team needs a business plan for next year.

- how their customers are using their bikes
- Their top priority is identifying customer demand at different station locations.

Course challenge:

- Gather information from notes taken at the last Cyclistic executive meeting

- Identify relevant stakeholders for each task

- Organize tasks into milestones

- Complete project planning documents to align with stakeholders

Project Planning

- **Stakeholder Requirements Document**
- **Project Requirements Document**
- **Planning Document**

Cyclistic has captured data points for every trip taken by their customers, including:

- Trip start time and location (station number, and its latitude/longitude)

- Trip end time and location (station number, and its latitude/longitude)

- The rented bike's identification number

- The type of customer (either a one-time customer, or a subscriber)

Stakeholders: (access to all datasets)

- Sara Romero, VP, Marketing

- Ernest Cox, VP, Product Development

- Jamal Harris, Director, Customer Data

- Nina Locklear, Director, Procurement

Team members:

- Adhira Patel, API Strategist

- Megan Pirato, Data Warehousing Specialist

- Rick Andersson, Manager, Data Governance

- Tessa Blackwell, Data Analyst

- Brianne Sand, Director, IT

- Shareefah Hakimi, Project Manager

*Primary contacts are Adhira, Megan, Rick, and Tessa.

Per Sara: Dashboard needs to be accessible, with large print and text-to-speech alternatives.

Project goal: Grow Cyclistic's Customer Base

Details from Ms. Romero:

- Understand what **customers want**.

- what makes a successful product.

- how **new stations** might alleviate **demand in different geographical areas**.

- Understand how the **current line of bikes** is used.

- How can we apply **customer usage insights to inform new station growth**?

- Different users **(subscribers and non-subscribers)** use our bikes.

- Investigate a **large group of users to get a fair representation** of users across locations and with **low- to high-activity levels.**

- Users use Cyclistic less when the **weather is inclement**. This should be visible on the dashboard.

The deliverables and metrics:

- A table or **map** visualization **exploring starting and ending station locations**, aggregated by location. I can use any location identifier, such as station, zip code, neighborhood, and/or borough. This should show the number of trips at starting locations.

- A visualization showing which **destination (ending) locations** are popular based on the total trip minutes.

  - Tip: **Focus on peak months.**

- A visualization that focuses on trends from the **summer of 2015.**

- A visualization showing the percentage growth in the **number of trips year over year**.

- Gather insights about **congestion** at stations.

  - **Tip: For each day, use a table calculation to calculate the net of start and ending trips per station. This gives an approximation of whether there are more bikes coming in or out of a station.**

- Gather insights about **the number of trips across all starting and ending locations**.

- Gather insights **about peak usage by time of day, season, and the impact of weather**.

*Dashboard must be created in **6 weeks!**

Measure success:

Analyze data that spans at least one year to see how seasonality affects usage.

Exploring data that spans multiple months will capture peaks and valleys in usage.

Evaluate each trip on the number of rides per starting location and per day/month/year to understand trends.

For example, do customers use Cyclistic less when it rains? Or does bikeshare demand stay consistent? Does this vary by location and user types (subscribers vs. nonsubscribers)? Use these outcomes to find out more about **what impacts customer demand**.

Other considerations:

The dataset includes **latitude and longitude of stations but does not identify more geographic aggregation details, such as zip code, neighborhood name, or borough. The team will provide a separate database with this data.**

The weather data provided does not include what time precipitation occurred; it's possible that on some days, it precipitated during off-peak hours. However, for the purpose of this dashboard, I should **assume any amount of precipitation that occurred on the day of the trip could have an impact.**

Starting bike trips at a location will be impossible if there are no bikes available at a station, so we might need to consider other factors for demand.

Finally, the data must **not include any personal info** (name, email, phone, address). Personal info is not necessary for this project. Anonymize users to avoid bias and protect their privacy.

People with dashboard-viewing privileges:

Adhira, Brianne, Ernest, Jamal, Megan, Nina, Rick, Shareefah, Sara, Tessa

Roll-out:

- Week 1: Dataset assigned. Initial design for fields and BikeIDs validated to fit the requirements.

- Weeks 2–3: SQL and ETL development

- Weeks 3–4: Finalize SQL. Dashboard design. 1st draft review with peers.

- Weeks 5–6: Dashboard development and testing

Questions:

- How were bikes used by our customers?

- How can we apply insights from the data generated by trip data?