

Bike Share Data Analysis

Introduction

1. What is the problem?

Bike Share is a bike sharing system in Bay Area. By analyzing the data set from 2013 to 2017, I'd like to identify how Bike Share can further improve and expand its service and increase their operation efficiency. Following are the few areas that I will explore in order to find the potential solution to the question:

- a. Who are the users? Are there potential users that are not covered with the current service?
- b. How weather and terrain impact the usage of Bike Share?
- c. How can Bike Share maintain the availability of bike and empty dock to the users?

2. Who is my client?

Bike Share will be the potential client to my project. They will be able to get useful insights on how they can improve their operation and expand the scope of service.

3. What data are you going to use for this? How will you acquire this data?

- a. Data from Bike Share, including trip, member, and weather.

<http://www.bayareabikeshare.com/open-data>

- b. Data of terrain. This should be able to acquire from Google map or GIS system online.

<http://www.webgis.com/terraindata.html>

4. In brief, outline your approach to solving this problem (knowing that this might change later).

- a. First clean up data and combine necessary data for the analysis
- b. Visualize the initial data and look for trends and relations among the data
- c. Further extract and analyze data from the findings

5. Deliverables:

- a. Codes for the data cleaning, wrangling and visualizations.
- b. Slide decks to explain the analysis, conclusion and suggestions.
- c. A detailed paper to explain the findings and suggestions.