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Bay Area Bike Share Rider Patterns

This project will be a study of the usage patterns in the Bay Area Bike Share network in and around San Francisco, California. In this project I will delve into the trends in trip patterns and station utilization by customers and subscribers to the program. Some data includes home zip codes for riders and that will be used to aide in identifying areas for expansion of the program.

The key client of this project is Bay Area Bike Share itself and will provided a basis of analysis techniques that can be applied to other cities and transit sharing companies in other cities as well. These clients and programs will gain important insight into their customer base and provide better quality service to current customers as well as identify potential growth areas to gain more customers.

Initial exploratory analysis will be to first find patterns in trip data. Key areas of investigation will be as follows

- Occurrences of trips that start and end in different landmark areas.
- Trip routes of subscribers vs customers
- Affect of weather patterns on trip frequency.
- Dock availability at key route terminals at different hours through out the day
- Identify commuter centric vs tourist centric stations
- Rider trip routes and times by home zip code

All of my analysis will be done using Python packages and delivered in a Jupiter Notebook hosted on my Github repository. The data which will be used in this project is publicly available through The Bay Area Bike Share Open Data site [1], supplemental weather data may be gathered from DarkSky [2].

References

[1] http://www.bayareabikeshare.com/open-data
[2] https://darksky.net/