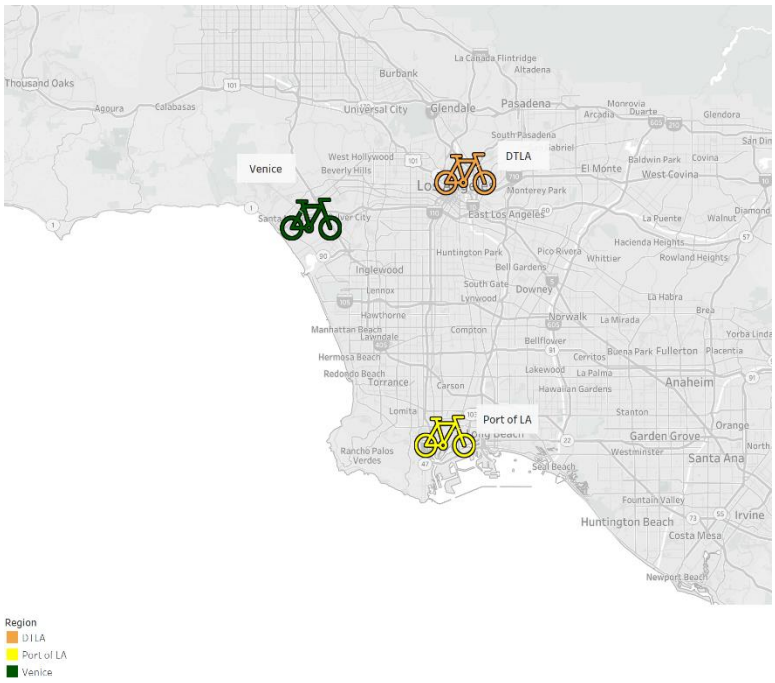
Metro Bike Share Analysis

I worked on analyzing why the metro bike share usage was not as expected even despite of Los Angeles being the second most populous city of United States.
I studied data on 639403 rides from Q3,2016 to Q4,2018 and analyzed the behavior of rides/trip in several thematic sections for bike station, regions, pass usage, traffic and price .
My Study is divided in four categories

1) Location service pattern
2) Weather based service pattern
3) Price analysis
4) Traffic analysis

For this project python was used for data pre-processing and tableau was used for data visualization. The data sources are US census, Metro Bike, ,National Highway Traffic Safety Administration and , National Centre of Environment Information.

Below are the individual visualizations used for the work



1 Shows Current Active Regions of Metro Bike Share

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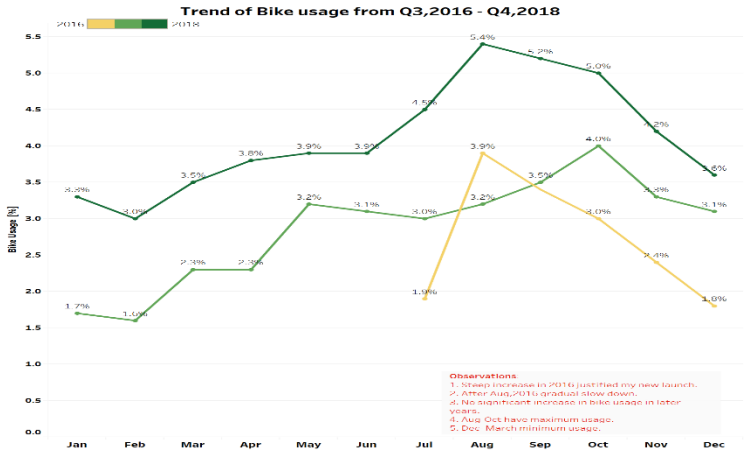
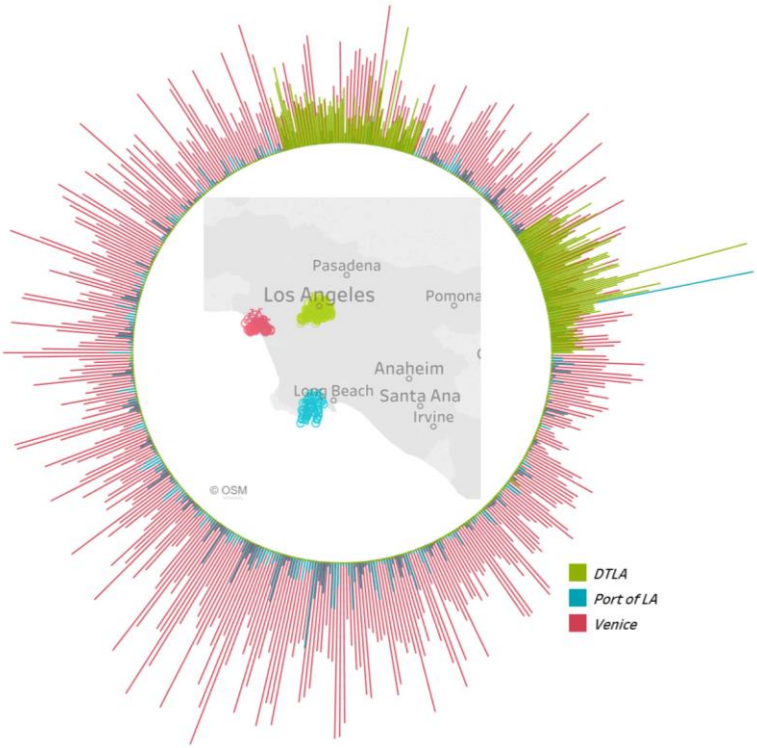
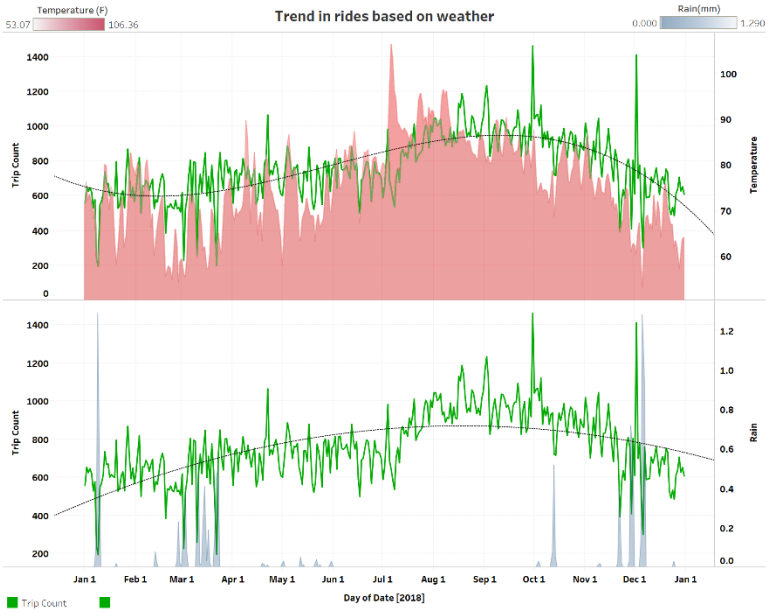


2 Trend in Bike Usage from 2016 to 2018

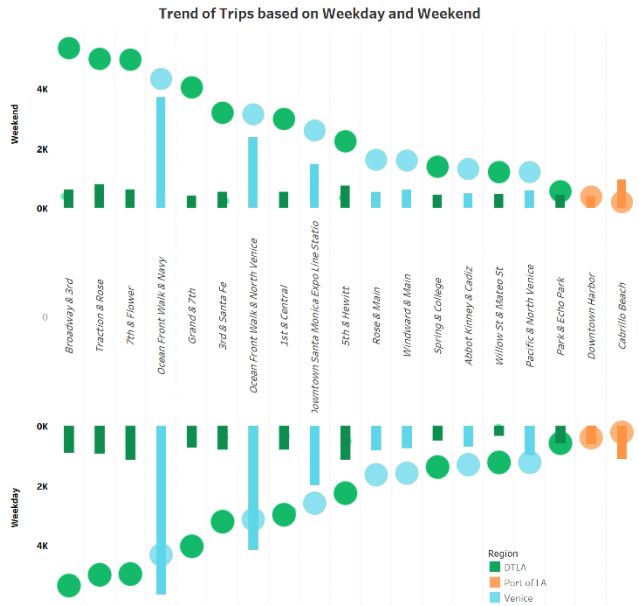


3 Shows the Active Regions and the duration of Usage

Metro Bike Share Analysis



4 Trend in bike Usage based on Weather



5 Trend in bike trips based on days
(Round trips are denoted by circle whereas bars represent one-way trips)

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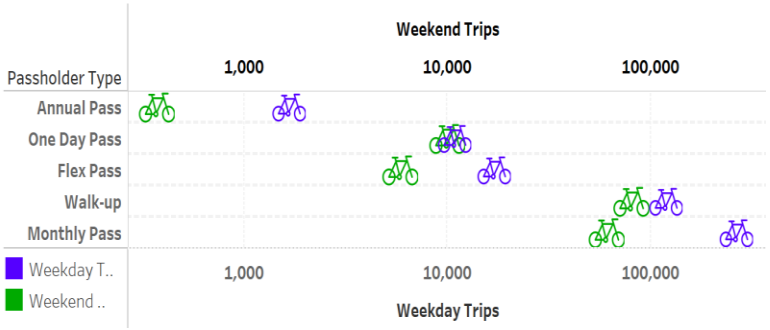
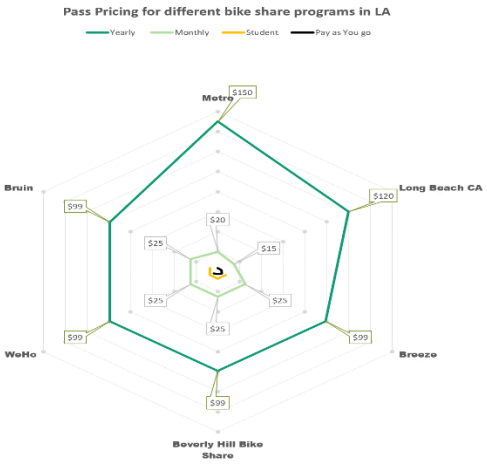
6 Top 5 round and one-way trips



7 Trend of usage of different types of passes



8 Price analysis of different bike shares in LA

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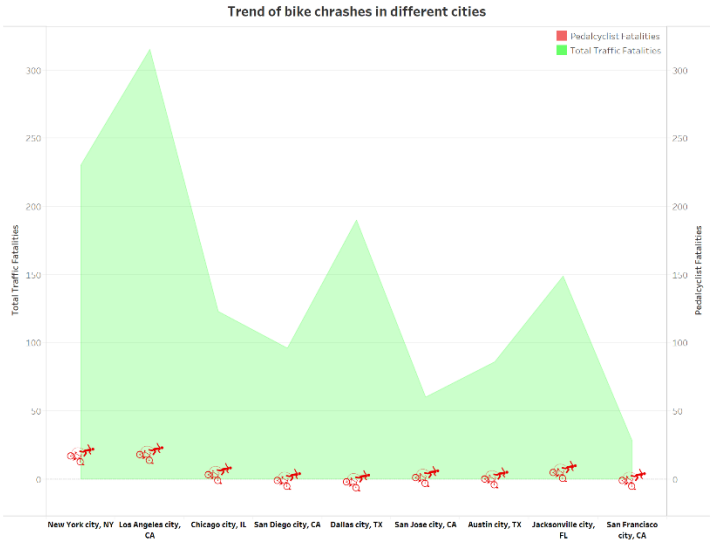

9 Traffic crash Analysis of major cities

The final poster presentation of the work is below