Chicago Car Crash Analysis

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Speed thrills but kills, beware!!

Brief Introduction

My client is the Vehicle Safety Board, interested in reducing the accident cases in the city of Chicago. The board is looking into helping the car manufacturers and buyers to equally feel safer on the roads.

This software would be used to identify the leading causes of death in the city of Chicago and save the lives of the car occupants, including the driver.

The software would be able to recognize the prevailing situation at the time of accidents and compares it with the previous crashes, notifying the board of a possible fatality on a specific area. The classification model created in this case will predict the prime factors causing an accident and whether the accident is fatal.

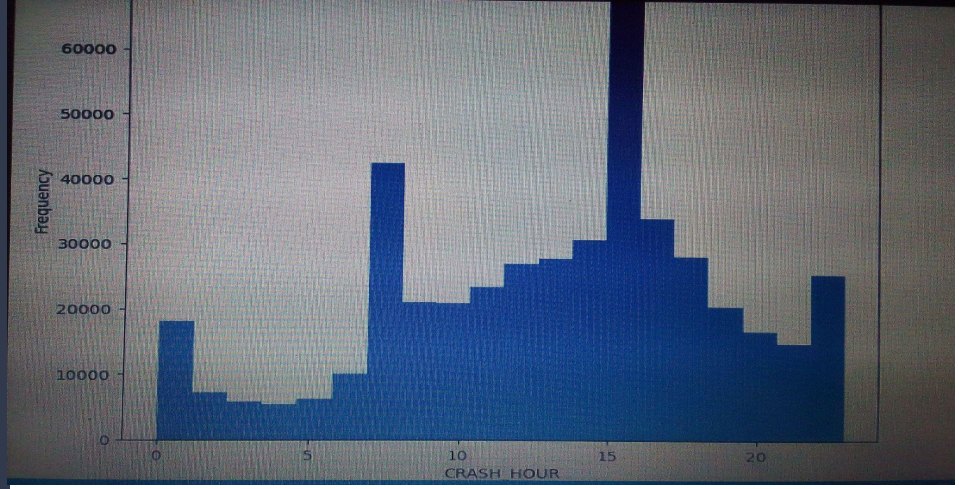
Business Objectives

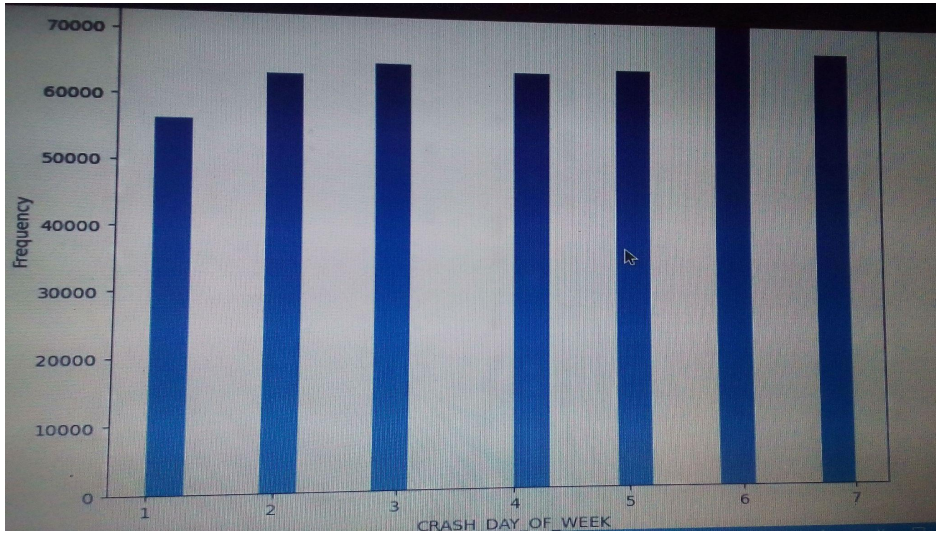
- To provide inferential statistics and visualisations based on this data.
- To build a classification predictive and supervised learning models from the data to predict causes of crash and how to prevent crashes on the roads

Causes of car crashes

- Failure to obey the traffic rules and regulations, including high speed and reckless driving
- Failure to give right of way by drivers
- Failure of the traffic control device
- The defect in the vehicle

Visualizations





Conclusions & Recommendations

- As can be seen, most crashes do not take place due to some bad weather or bad roads or high speed but are just due to the negligence of the road users, motorists and pedestrians in equal measure.
- There is need that drivers be on the lookout as they use the roads, particularly from thursday, through sunday.
- The hours which are accident prone should have the police officers being able to manage drivers and ensure that traffic rules are not broken.
- There should be a fixed speed limit between Thursday to Sunday as well as during the day time and early night as most of the car crashes happens within these periods.