Car Accident Severity Analysis : Seattle , USA

IBM Data Science Capstone Project

Salah Elhamaky

Agenda

1- **Introduction: Business Undertanding**

2- Data

3- Modelling and Evaluation

4- Results

1- **Introduction: Business Undertanding**

- The Open Data Program makes the data generated by the City of Seattle has been openly available to the public for the purpose of increasing the quality of life for the residents, increasing transparency, accountability and comparability, promoting economic development and research, and improving internal performance management.

- The Traffic Records Group, Traffic Management Division, Seattle Department of Transportation, provides data for all collisions and crashes that have occured in the state from 2004 to the present day. The data is updated weekly and can be found at the Seattle Open GeoData Portal.

- The objective is to exploit this data to extract vital features that would enable us to end up with a good model that would enable the prediction of the severity of future accidents that take place in the state. This would further enable the Department of Transportation to prioritise their SOPs and channel their energy to ensure that fewer fatalities result in automobile collisions.
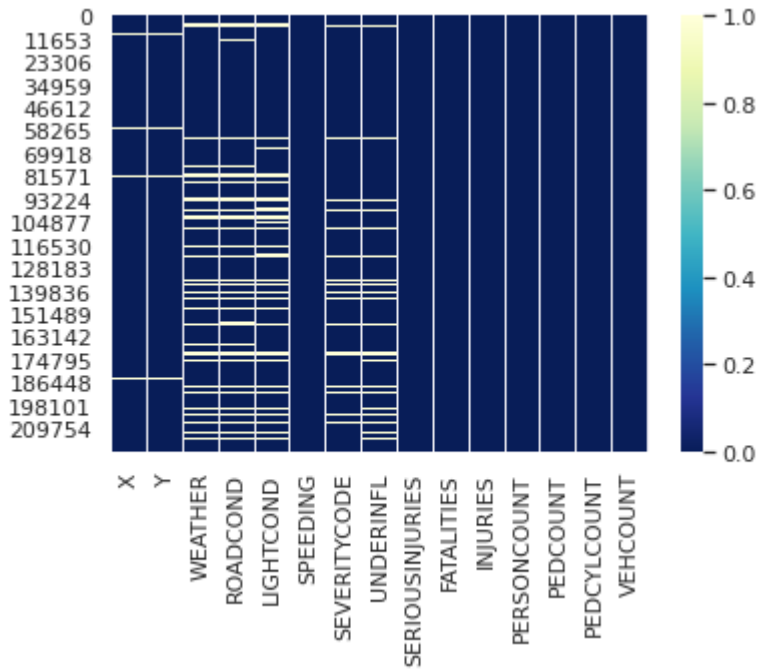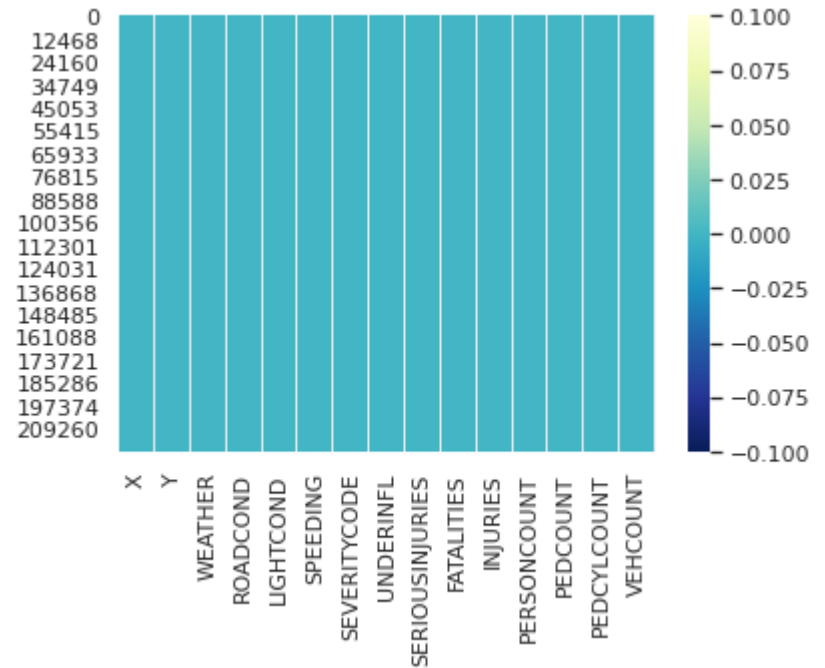
2- Data

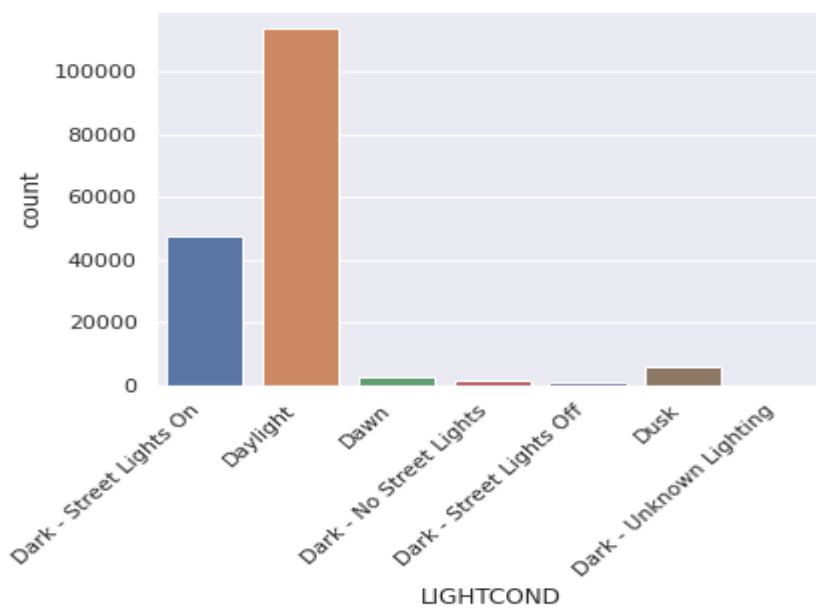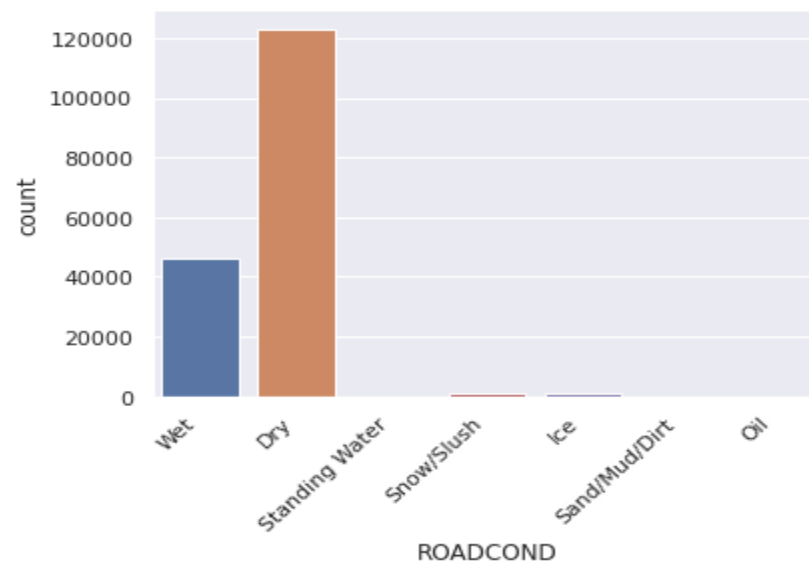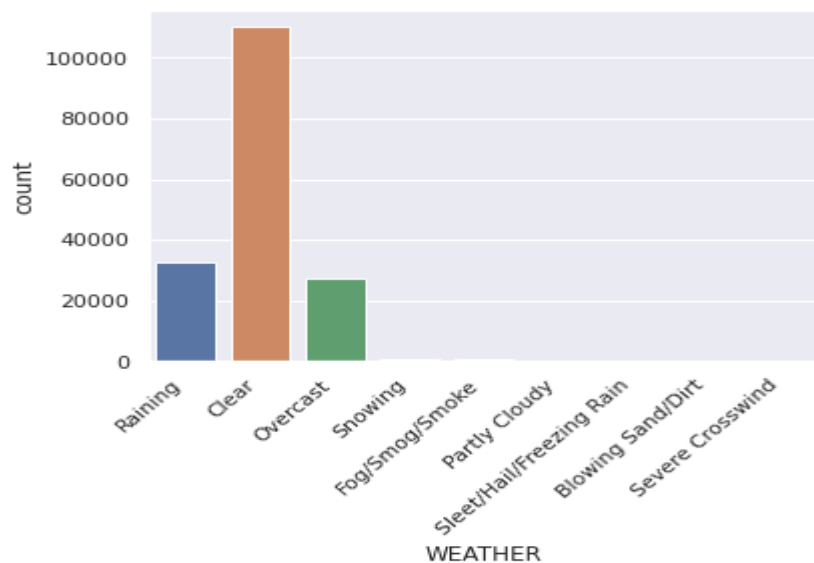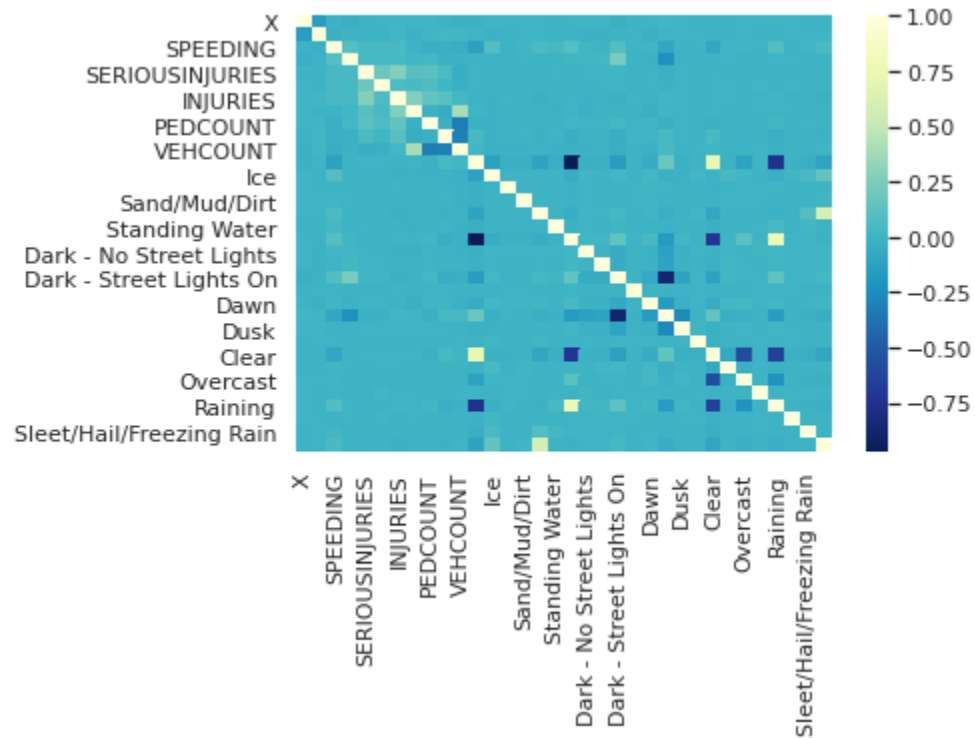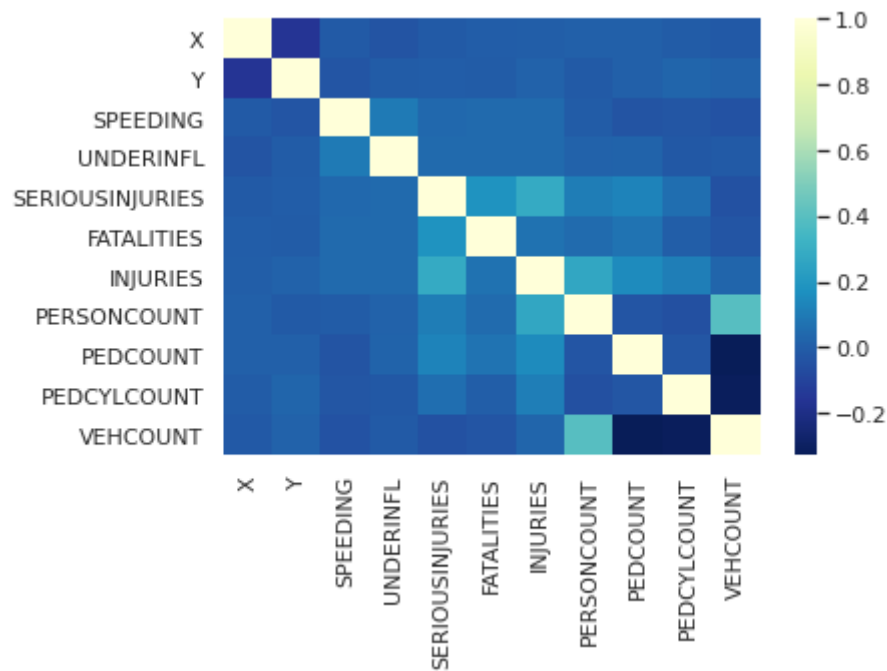| SEVERITYCODE Value	Meaning
1	Accidents resulting in property damage
2	Accidents resulting in injuries
2b	Accidents resulting in serious injuries
3	Accidents resulting in fatalities
0	Data Unavailable i.e. Blanks

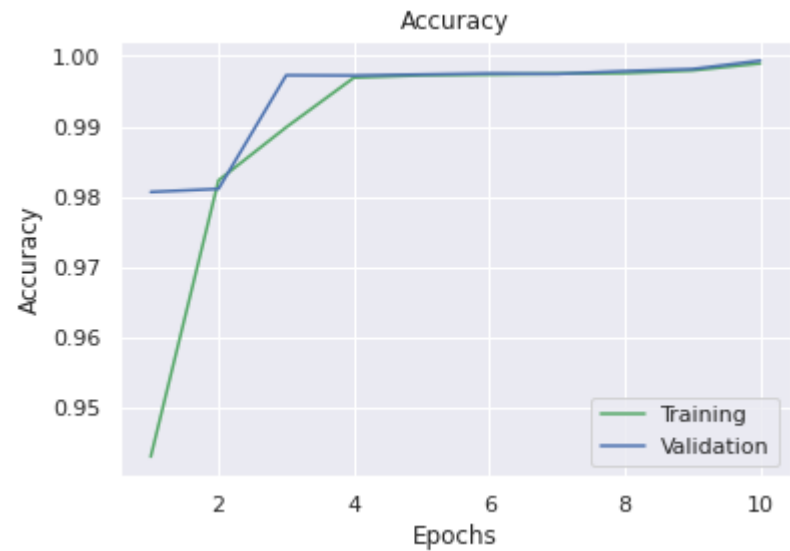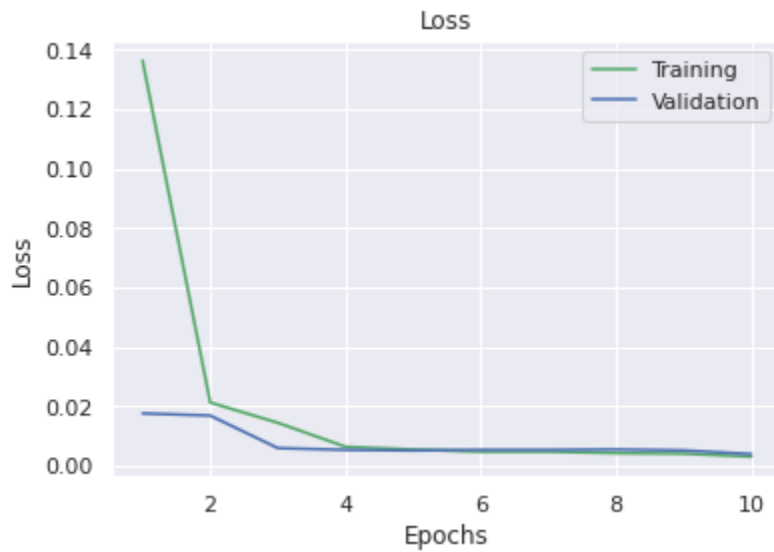## Data Cleaning

Dataset before pre-processing

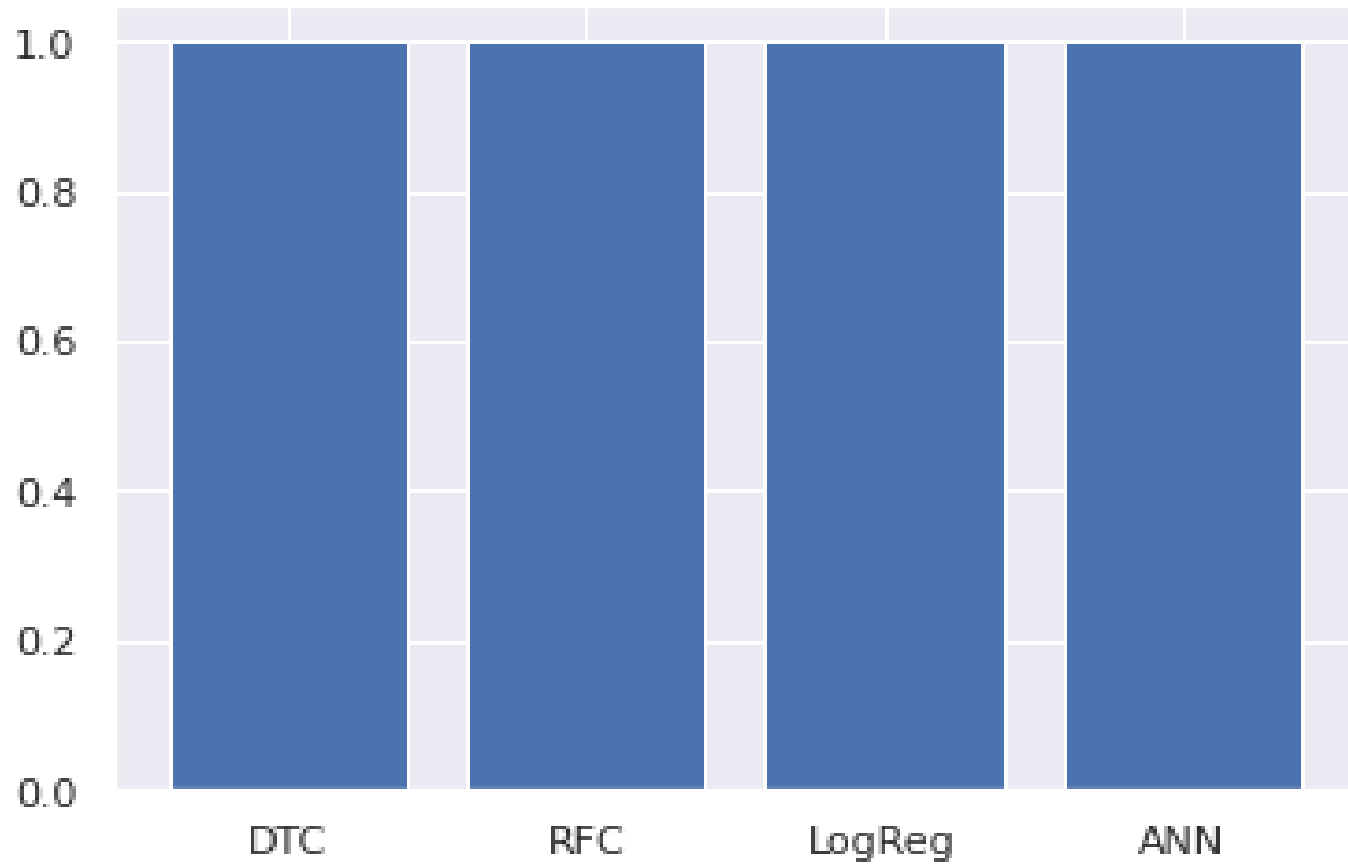Dataset after data cleaning

Data distrubtion

Data encoding

3- Modeling and Evaluation

3- Results

Conclusion and Discussion

Thank you so much