As the number of vehicles and transportation means are varying and increasing the number of road accidents are increased too, this project aims to use the data science and ML methodologies and algorithms to study the historical circumstances recorded during car accident, and then to improve a module that will participate in the effort to reduce the severity of car collisions in a community through alerting drivers and roads riders by police, media and local institutions to be more careful in certain bad circumstances (weather, road and visibility conditions).

A historical data for all types of collisions from 2004 until present will be used to train and test the developed model.

After performing a descriptive analysis to understand the data more, the irrelevant attributes will be dropped to decrease the computation cost and increase the models efficiency.

In the developed model the attribute 'SEVERITYCODE' will be the dependent (target) variable, because it is used measure the severity of an accident from 0 to 5 within the dataset, and the attributes 'WEATHER', 'ROADCOND' and 'LIGHTCOND' will be selected as the model's independent variables.

Results gained from Logistic Regression Decision Tree Classifier and KNN models will be evaluated using jaccard\_simularity\_score, f1\_score and log\_loss.