## Introduction | Business Understanding

The purpose of this Capstone Project is to help people to get awareness of accidents occurrences and causes of it every year in a city and helps to reduce the frequency of car collisions in a community, an algorithm must be developed to predict the severity of an accident given the current weather, road and visibility conditions. When conditions are bad, this model will alert drivers to remind them to be more careful.

According to preliminary estimates from National Highway Traffic Safety Administration (NHTSA), 36,120 people died in motor vehicle crashes in [2019](https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812946), down 1.2 percent from 36,560 in 2018. Reducing traffic accidents is an important public safety challenge around the world. Accident prediction is important for optimizing public transportation, enabling safer routes, and cost-effectively improving the transportation infrastructure, all in order to make the roads safer. It will help people making smart and efficient decision on selecting safe road routes to avoid accidents and be cautious.

The goal of ‘how to deal with the accidents data’- accident prediction is usually to provide a measure of the risk of accidents at different points in time and space. The severity of an accident is the label used to train the model which describes the fatality of an accident, and the proposed model can be used to identify where and when the risk of accident is significantly higher than average in order to take actions to reduce that risk.

This Capstone Project aim to analyse accident forecast basing on fatality of an accident. The severity of an accident is the label used to train the model which describes the fatality of an accident, and the proposed model can be used to identify where and when the risk of accident is significantly higher than average in order to take actions to reduce that risk.