DATA CAPSTONE PROJECT

**Capstone Project - Predicting Car Accident Severity**

Introduction | Business Understanding

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.

Road traffic injuries are currently estimated to be the eighth leading cause of death across all age groups globally and are predicted to become the seventh leading cause of death by 2030.

Analysing a significant range of factors, including weather conditions, special events, roadworks, traffic jams among others, an accurate prediction of the severity of the accidents can be performed.

These insights, could allow law enforcement bodies to allocate their resources more effectively in advance of potential accidents, preventing when and where a severe accident can occur as well as saving both, time and money. In addition, this knowledge of a severe accident situation can be warned to drivers so that they would drive more carefully or even change their route if it is possible or to hospital which could have set everything ready for a severe intervention in advance.

Governments should be highly interested in accurate predictions of the severity of an accident, in order to reduce the time of arrival and thus save a significant amount of people each year. Others interested could be private companies investing in technologies aiming to improve road safeness.

**The Problem**

**Dat**a that might contribute to determining the likeliness of potential accidents occurring might include information on previous accidents such as road conditions, weather conditions, exact time and place of the accident, type of vehicles involved in the accident, information on the users involved in the accident and the severity. This project aims to forecast the severity of accidents with the previous information that could be given by a witness informing the emergency services.

**Why does the study matters?**

In this study, I would be analysing the relationship between the severity of an accident and some characteristics which describe the situation that involved in the accident. I would like to figure out how features such atmospheric conditions, holidays would be relevant when compared to obvious features such as day , time of the incident, the road category , type of collision etc