**Capstone project- Seattle Accident Severity Data Capstone Project**

**Introduction to the Business Problem**

In today's time, in the light of modernized communities and the introduction of motorized vehicles with human lifestyle, land transportation has been at the edge of a great evolution. Increasing the number of cars, growing the traffic volume on the roads and the lack of safety have raised up the incidence and severity of traffic accidents. As per WHO reports, approximately 1.35 million people die each year as a result of road traffic crashes.

In 2015, a crash occurred in Washington state every 4.5 minutes. Seattle is the 8th most dangerous city for accidents in the US. In this data set, we are analyzing the accident severity cases in Seattle from 2004 till May 2020 so that the city officials can take steps to make roadways safer for citizens. We will analyzing factors that contributed to the collisions like weather, light, road conditions, speeding etc. and predict the severity of the cases based on them. This will help hospitals to anticipate the period during which the accidents increase and be prepared with the para medics, hospital staff and infrastructure for handling any crisis situation. Also, we could inform the Emergency services who can be well prepared.

The WHO sets the economic impact of road accidents in a developed country is at 2 to 3% of GDP, a significant figure for any country. Collaboration to reduce these losses has become an important issue of general interest, hence the it is important to analyze the data

This is the background to the business problem which we will try to solve with the help of machine learning algorithms