**I. INTRODUCTION/BUSINESS PROBLEM**

**1.1 Problem Statement**

Say you are driving to another city for work or to visit some friends. It is rainy and windy, and on the way, you come across a terrible traffic jam on the other side of the highway. Long lines of cars barely moving. As you keep driving, police car start appearing from afar shutting down the highway. Oh, it is an accident and there's a helicopter transporting the ones involved in the crash to the nearest hospital. They must be in critical condition for all of this to be happening. Now, wouldn't it be great if there is something in place that could warn you, given the weather and the road conditions about the possibility of you getting into a car accident and how severe it would be, so that you would drive more carefully or even change your travel if you are able to. This is exactly what we will try to address through this project and come up with an effective model that caters to this particular need.

**1.2 Target Audience**

Who will be benefitted from this particular solution? Residents of Seattle can use this model which could aid them in deciding whether or not they should travel along the route under pre-existing weather and road conditions. Police Department can also use this particular model to predict problem areas and have a immediate response team ready at these locations to lessen the damages to life and property. Few visualizations and data for the streets and blocks with maximum number of mishaps due to various uncontrollable forces during road travel namely weather, road condition and light conditions will also be made available to the users. Another far-fetched use could be Google Maps using the data to improve time estimations and suggest faster alternative routes for such trips. This can be done in addition to its report a/an jam/accident feature. Now users can report the existing weather and road conditions, and google maps can alert other uses about the risks of travelling along this route based on these aforementioned parameters.