Capstone Project - Car accident severity

Introduction

Road safety is one of the main concerns for every government in the world. Approximately 1.35 million people die in road crashes each year, on average 3,700 people lose their lives every day on the roads, while 20-50 million people suffer non-fatal injuries (resulting in long-term disabilities). For United States, the road crash is also a security risk for drivers and pedestrian. More than 38,000 people die every year in crashes on U.S. roadways. The traffic fatality rate is 12.4 deaths per 100,000 inhabitants and the terrible traffic security condition also cause 4.4 million people suffering from serious injure. The economic and societal damages of this single problem cost every citizen 871 billion dollars.

To ease the harsh traffic security issue and offer a solution for the relevant department in the U.S. government, a prediction for the severity of car accidents and a detailed data analysis is crucial for the policy maker.

Problems:

Q1. List and visualization the location of the car accidents, mark the areas with high incidence of car accidents;

Q2. Analyze which part of the roadway has the highest accident rate;

Q3. The main factor deciding the severity of a car accident;

Q4. The analysis of the location of the car accidents;

Q5. The analysis of collision type.