Use Cases and User Roles

1. Analyze crash vehicle factors: Use the year, make, and type of vehicle in the crash dataset to analyze which types of vehicles are more likely to crash and identify potential safety issues related to vehicle design and maintenance.

2. Identify high-risk areas: By analyzing the location attributes in the ticket and crash datasets, we can identify datasets with a high frequency of violations and crashes to enhance enforcement efforts in those areas, as well as implement safety improvements in those areas.

3. Combine the ticket and crash datasets to analyze whether there is a correlation between violations (e.g., cell phone use, failure to wear a seat belt) and the occurrence of crashes.

4. Analyze the age and gender of crash drivers for more targeted safety interventions.

The data we have collected and analyzed is useful for many use cases and potential users interested in automobile and road safety. The list includes government safety officials and police departments interested in identifying areas where they could increase spending/manpower in policing, increased signage to help keep drivers alert, and design of roadways to help reduce incidents. The data is also relevant for automobile manufacturers, as they can analyze crash and ticket data in order to help develop hardware and software to keep drivers more alert and to increase overall car safety. Finally, automobile insurance companies would find the data extremely useful in their analysis of automobile crashes and incidents to help calculate trends in insurance costs and payouts.