**Project Proposal**

Project 3: UTA-VIRT-DATA-PT-04-2023-U-LOLC-MTTH Cohort

**Project Proposal:** Transportation and Traffic Safety Enhancement in Austin, Texas

**Project Overview:**

* **Project Team Members:**
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* **Project Scope and Objectives:**

This proposal aims to present a comprehensive plan for enhancing transportation and traffic safety in Austin, Texas, with the primary goal of mitigating the financial burden of traffic incidents. The project will focus on analyzing historical traffic data to identify trends, patterns, and correlations that will inform targeted improvements.

* **Key Objectives:**
* Analyze the per-capita trajectory of traffic incidents over a specified period.
* Evaluate the evolution of incident types over time.
* Investigate the relationship between incident frequency and time of day.
* Examine seasonal patterns to uncover incident correlations.
* Link to dataset: [Real Time Traffic Incident Reports](https://data.austintexas.gov/Transportation-and-Mobility/Real-Time-Traffic-Incident-Reports/dx9v-zd7x)

**Rationale for the Project:**

* **Project Advantages:**
* Economic Savings: The initiative seeks to significantly reduce the financial impact of traffic incidents on the city by implementing strategic enhancements.
* Enhanced Emergency Response: By optimizing traffic flow and incident management, emergency response times can be notably improved, potentially saving lives.
* Alleviated Congestion: The project aims to optimize traffic flow during peak congestion hours, contributing to a smoother and more efficient transportation system.
* **Performance Metrics:**

To gauge the success of the project, the following measures will be employed:

* Thorough Analysis: The project's effectiveness will be assessed based on the ability to establish meaningful relationships between incident trends, per-capita increases, and incident types. The identification of these connections will drive the formulation of cost-effective transportation improvements.
* Economic Impact: Success will be determined by quantifying the reduction in traffic incident-related costs as a direct result of the implemented enhancements.
* Traffic Flow Enhancement: The project's triumph will be evident through observable improvements in traffic flow during high-congestion periods.

By focusing on these metrics, the project endeavors to provide actionable insights into traffic management and safety, ultimately contributing to the betterment of transportation in Austin, Texas.