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**School of Business**

**OPIM-5501-Visual Analytics-SEC712-1245**

**Group Project 1 Proposal – Team 9**

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**Meteorite Landings**

**Project Description:**

This project aims to analyze a comprehensive dataset of meteorite landings compiled by The Meteoritical Society. The dataset contains crucial information about meteorites, including their name, ID, classification, mass, fall status, year of landing, and geographical coordinates. Through careful analysis, we intend to uncover patterns, trends, and insights regarding meteorite landings over time and across different regions. By leveraging this dataset, we seek to gain a deeper understanding of meteorite phenomena and their implications.

**Sample Data Description:**

The dataset comprises 34,513 meteorite entries, each with various attributes. Here's a brief description of the key fields:

Name: Name of the meteorite.

ID: Unique identifier for each meteorite.

Nametype: Type of name (e.g., official, provisional).

Recclass: Classification of the meteorite based on its composition and structure.

Mass (g): Mass of the meteorite in grams.

Fall: Indicates whether the meteorite was observed falling or found afterward.

Year: Year of the meteorite landing.

Reclat: Latitude of the landing location.

Reclong: Longitude of the landing location.

GeoLocation: Combined geographical location (latitude and longitude).

**What We Hope to Learn:**

* Temporal Patterns: We aim to identify temporal patterns in meteorite landings, such as variations in landing frequency over different decades or centuries.
* Geographical Distribution: By analyzing geographical coordinates, we seek to understand the distribution of meteorite landings across the globe and identify regions with higher meteorite activity.
* Mass and Classification Analysis: We intend to analyze the relationship between meteorite mass, classification, and landing frequency to discern any correlations or trends.
* Fall vs. Found Analysis: Exploring the differences between observed falls and found meteorites can provide insights into meteorite discovery and recovery processes.

**Conclusion:**

Through this project, we anticipate gaining valuable insights into the dynamics of meteorite landings worldwide. By analyzing the dataset's rich information, we aim to contribute to the scientific understanding of meteorites and their impact on Earth's history and geology. This analysis may also have implications for fields such as astronomy, planetary science, and even space exploration strategies. Ultimately, this project seeks to harness the power of data analytics to unravel the mysteries of meteorite phenomena and their significance for our planet and beyond.