Project Proposal

Title: Geospatial Analysis of Global Superstore Sales

Description: This project aims to conduct a geospatial analysis of sales data from a global superstore. By leveraging location data, I intend to explore patterns, trends, and regional variations in sales, ultimately gaining insights to reform strategic decisions.

Problem Statement:

- **Problem:** The global superstore operates in diverse regions, each with its unique market characteristics. Understanding the spatial distribution of sales can uncover opportunities for targeted marketing, resource allocation, and expansion.
- **Question:** How do sales vary across different geographical locations, and what factors might influence these variations?

Data Collection:

- **Source:** The dataset will be collected from the Kaggle Global Superstore dataset, a comprehensive source of information about sales and orders.
- **Method:** The dataset has undergone transformation from its original txt format in CSV, with the help of the pandas library. The processed CSV file will be used for the analysis.

Analysis and Visualizations:

- **Descriptive Statistics:** Conduct a thorough analysis of key statistics such as mean, median, and standard deviation for sales and order-related metrics.
- **Geospatial Visualization:** Utilize geographic coordinates from the dataset to create a visual representation of the global distribution of superstore sales. This can be achieved through mapping libraries like Folium or Matplotlib.
- **Regional Sales Analysis:** Group data by regions to examine total sales, average order values, and profit. For instance, investigate if proximity to urban centers correlates with higher sales volumes,
- **Correlation Analysis:** Explore possible correlations between geographical locations and sales metrics.
- **Time Series Analysis:** Analyze sales trends over time to identify seasonal patterns or any evolving trends.
- **Market Expansion Insights:** Identify potential opportunities for market expansion by analyzing sales data in conjunction with demographic information. This could inform decisions on where to focus marketing efforts or consider opening new stores.
- **Customer Segmentation:** Explore the dataset for any discernible customer segments and analyze their purchasing behavior. This can guide targeted marketing strategies.
- **Comparison with Original Dataset:** Conduct a brief comparative analysis between the original dataset and the transformed CSV file, highlighting any notable changes or enhancements.

This comprehensive analysis aims to provide a holistic understanding of the global superstore's sales landscape, enabling data-driven decision-making for strategic improvements.