What is the problem you want to solve?

The company, a global e-commerce entity specializing in electronic products, seeks to deepen its understanding of customer behaviors and preferences to enhance its strategic marketing efforts, optimize its product offerings, and ultimately boost customer satisfaction and sales. Despite having access to a rich database of customer interactions and transactions, the company has yet to fully exploit this data to extract actionable insights.

Problem Statement:

Develop and implement data-driven methodologies to optimize inventory management and pricing strategies by identifying emerging trends in customer preferences. The goal is to increase the company's revenue by 20% within the next year.

Who is your client and why do they care about this problem? In other words, what will your client DO or DECIDE based on your analysis that they wouldn't have otherwise?

A global e-commerce company would decide which transportation to choose based on delivery time and identify distinct customer segments based on purchasing patterns, preferences, and demographic data. We would have data-driven decision making which will make everyone feel confident. They would invest in analysis to ensure resources are being used wisely.

What data are you going to use for this? How will you acquire this data?

I will use the dataset from Kaggle
https://www.kaggle.com/datasets/nayanack/shipping?resource=download

In brief, outline your approach to solving this problem (knowing that this might change later).

I will utilize a clustering algorithm to gain a holistic perspective of the dataset. Additionally, I will conduct numerous smaller comparisons between individual features within the dataset.

What are your deliverables? Typically, this would include code, along with a paper and/or a slide deck.

I will provide code for implementing the models, a comprehensive paper detailing the methodology, and an extensive analysis of the results. Additionally, a slide deck will be included to succinctly present the findings.