For this project, I will be working as a data scientist for XYZ Company, which is currently in the process of planning its annual budget for the upcoming fiscal year. My primary objective is to evaluate various aspects of the business by analyzing their sales report. This analysis aims to identify key areas where the company should allocate resources to drive growth, improve customer retention, enhance customer satisfaction, and ultimately boost overall profitability.

Using the insights gained from the analysis, I will make data-driven recommendations for investments. These recommendations may include strategies such as targeted marketing campaigns tailored to specific age groups or genders, promotional offers based on customer purchase history, or operational improvements designed to address customer feedback and satisfaction. By focusing on these areas, the company can optimize its operations and make informed decisions that align with its goals.

To achieve this, the exploratory data analysis (EDA) phase will commence with rigorous data cleaning to ensure accuracy and reliability. Clean data is essential for uncovering meaningful patterns and relationships within the dataset. Following this, I will visualize key variables individually and in combination to gain a deeper understanding of the data. This step will highlight trends, correlations, and insights that might otherwise remain hidden in raw figures.

The project will follow an iterative approach, with each milestone building upon the findings of the previous phase. This methodology allows for flexibility and adjustments as new discoveries emerge during the analysis process. I anticipate making modifications to my approach and recommendations based on these findings, ensuring the final insights are comprehensive and actionable.

This project will serve as a strategic guide to help XYZ Company prioritize investments that maximize returns while enhancing customer experiences and business efficiency.