**INTRODUCTION TO DATA SCIENCE**

**PROJECT PROPOSAL**

**Association Rule Mining in Sales Transaction Dataset**

1. **Overview**

We propose to conduct a project on association rule mining in a sales transaction dataset. The primary goal of this project is to analyze and discover hidden patterns within our sales transaction data. This exploration aims to identify relationships between products, purchasing trends, and effective advertising strategies.

Analyzing sales transaction data through association rule mining provides invaluable insights for businesses. It aids in understanding customer behavior, optimizing product placements, and enhancing marketing strategies, ultimately leading to increased revenue and customer satisfaction.

1. **Input & Output**

The project will utilize a sales transaction dataset comprising 500,000 records. The dataset includes essential information such as product IDs, descriptions, prices, customer details, and transaction timestamps. This dataset provides a rich source for exploring purchasing patterns and product associations.

The primary output of an association rule mining model is the discovered association rules. These rules reveal patterns and relationships among the products in the dataset.

1. **Approach**
2. **Conclustion**