**Exploratory Data Analysis on Supermarket Sales Dataset**

**What is an EDA?**

Exploratory Data Analysis (EDA) is a critical process in data analysis and statistics. It involves examining and visualizing data to understand its key characteristics, patterns, and trends.

**Introduction**

This document provides a walkthrough of the exploratory data analysis conducted on the Supermarket Sales Dataset. The dataset contains information about sales transactions in a supermarket, including details such as product categories, sales amounts, customer names, and shipping modes.

**Dataset Information**

**Dataset:** Supermarket Sales Dataset

**Purpose:** To analyse sales data and gain insights into product categories, customer behaviour, and sales trends.

**Size:** 10,000+ rows, 17 columns

**Key Questions Addressed**

**Categories with the Most Sales:**

* + Identify the category that sells the most.
  + Analyse how sales are distributed across different categories (e.g., Office Supplies, Furniture, Technology).

**Subcategory Contributions:**

* Determine which subcategory contributes the most to the overall sales of the category with the highest sales.

**Top Customers in the Technology Category:**

* Identify the top 5 customers in the technology category based on their total sales.

**Shipping Mode Analysis:**

* Determine the most commonly used shipping mode.
* Explore whether shipping mode usage varies by product category.

**Sales Trends by Month:**

* Identify the month with the highest total sales.
* Analyse how sales vary across different months.

**Top 10 States by Sales:**

* Identify the top 10 states with the highest sales.
* Analyse how sales are distributed across product categories within each state.

**Conclusion**

The exploratory data analysis provides valuable insights into the Supermarket Sales Dataset, highlighting key trends and patterns in sales data. By analysing categories, subcategories, customer behaviour, and shipping patterns, we gain a better understanding of the factors influencing sales in the supermarket.