**Diwali Sales Analysis Using Python**

**Objective:**

The objective of the 'Diwali Sales Analysis' project is to perform exploratory data analysis (EDA) on the Diwali Sales dataset obtained from Kaggle. The goal is to gain insights into customer behaviour and devise effective business strategies based on the analysis.

**Components:**

1. Data Cleaning and Manipulation: Thorough cleaning and manipulation of the dataset ensure data quality and integrity for further analysis.

2. Exploratory Data Analysis (EDA): EDA techniques utilizing Python libraries such as Pandas, NumPy, Matplotlib, and Seaborn are employed to uncover patterns, trends, and relationships within the data.

3. Customer Segmentation: By analysing customer attributes like state, occupation, gender, and age groups, potential customer segments are identified to improve targeted marketing and enhance customer experiences.

4. Sales Improvement Strategies: Through analysis, the highest selling product categories and individual products are identified, aiding inventory planning and meeting customer demands effectively.

**Key Insights:**

1. Married women aged 26-35 from Uttar Pradesh, Maharashtra, and Karnataka, working in IT, healthcare, and aviation sectors, are more likely to purchase products from the food, clothing, and electronics categories.

2. These findings enable tailoring marketing strategies, optimizing inventory, and enhancing customer satisfaction.

**Conclusion:**

The analysis highlights that married women aged 26-35 from Uttar Pradesh, Maharashtra, and Karnataka, working in the IT, healthcare, and aviation sectors, prefer purchasing products from the food, clothing, and electronics categories.