Diwali Sales Data Analysis

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Dataset Overview

- Dataset: 11,251 rows and 15 columns
- Cleaned in Python:
- Dropped null values
- Removed unnecessary columns
- Converted Amount column from float → integer

Analysis Approach (EDA)

- Conducted Exploratory Data Analysis (EDA) in Python
- Focused on customer spending patterns
- Used visualizations to compare groups

Age Group Analysis

- Spending trends across age groups
- Comparison between males and females
- Identified highest spending age group

State-wise Analysis

- Top states with the highest number of orders
- States contributing the most in terms of revenue

- Insights into regional purchasing behavior

Occupation Analysis

- Spending across different occupations
- IT, Healthcare, and Aviation professionals stand out
- Shows strong purchasing power in specific job sectors

Product Category Analysis

- Top product categories by sales:
- - Food
- - Clothing
- - Electronics
- Consumer preference trends

Product ID Analysis

- Most frequently purchased product IDs
- Products contributing maximum to overall sales

Key Findings

- Married women (26–35 years) spend the most
- Major spending states: Uttar Pradesh, Maharashtra, Karnataka
- Key occupations: IT, Healthcare, Aviation
- Preferred categories: Food, Clothes, Electronics

Business Conclusion

- Target Segment: Married women, age 26–35
- Key Markets: UP, Maharashtra, Karnataka
- Occupation Focus: IT, Healthcare, Aviation
- Product Strategy: Promote Food, Clothing, and Electronics
- Potential for tailored marketing campaigns

Power BI Visualization

- Connected Python-cleaned dataset to Power BI
- Built interactive dashboard using:
- Cards (KPIs overview)
- Line & Stacked Column Chart (Top order product id)
- Stacked Column Chart (state)
- Tree Map (product category analysis)
- 100% Clustered Chart (Top order by state)
- Donut Chart (gender)
- Slicers & Filters for interactivity
- Shapes & Icons (Freepik) for design

Thankyou