PYTHON DIWALI SALES ANALYSIS

A Python Project on Festival sales across India

Under the guidance of

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Sincerely,

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CHAPTER 1: INTRODUCTION

- Brief introduction to Diwali festival

Diwali, also known as the Festival of Lights, is a significant Hindu festival celebrated with much fervor and joy, symbolizing the victory of light over darkness and good over evil. During Diwali, families come together to exchange gifts, light oil lamps, and fireworks, creating a vibrant

- Importance of sales analysis during festive seasons

- Festive Sales Analysis
- Understanding Behavior
- Optimizing Strategies

CHAPTER 2: PROJECT OVERVIEW

Project Overview:

The objective of this project is to conduct Diwali Sales Analysis using Python. It involves analyzing sales data to discover trends, improve customer experience, and boost revenue through optimized marketing strategies during the festive season.

Brief overview of steps involved:

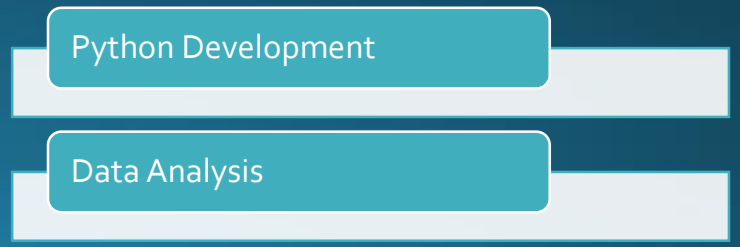
Objective of the project

Sales analysis boosts forecasting, inventory, promotions.

Analyze Diwali sales data.

Analyzing Diwali sales for trends, preferences, improvement.

Tools and technologies used:



CHAPTER 3: DATA COLLECTION

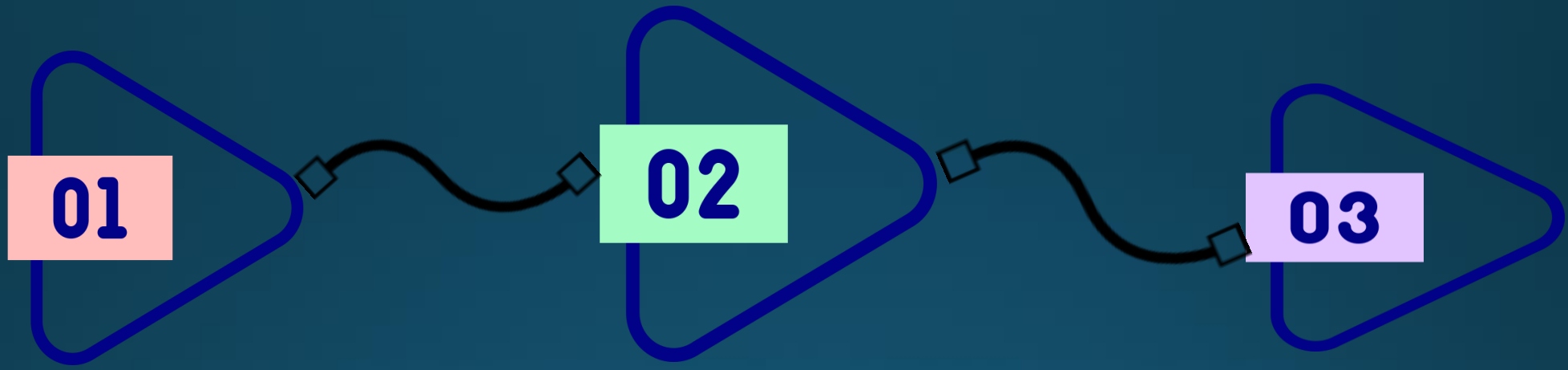
- Source of data (e.g., sales database, CSV file)

The datasets for this project are collected from GitHub and Kaggle, primarily sourced from a sales database. CSV files supplement the data, containing relevant information like date, product details, quantity sold, and price, crucial for analysis and insights.

- Explanation of data fields

- Challenges: Data quality.
- Concern: Data integrity.
- Strategy: Mitigation and resolution.

CHAPTER 4: DATA PRE-PROCESSING



Data Understanding

Transformation/Engineering
Analysis/Insights

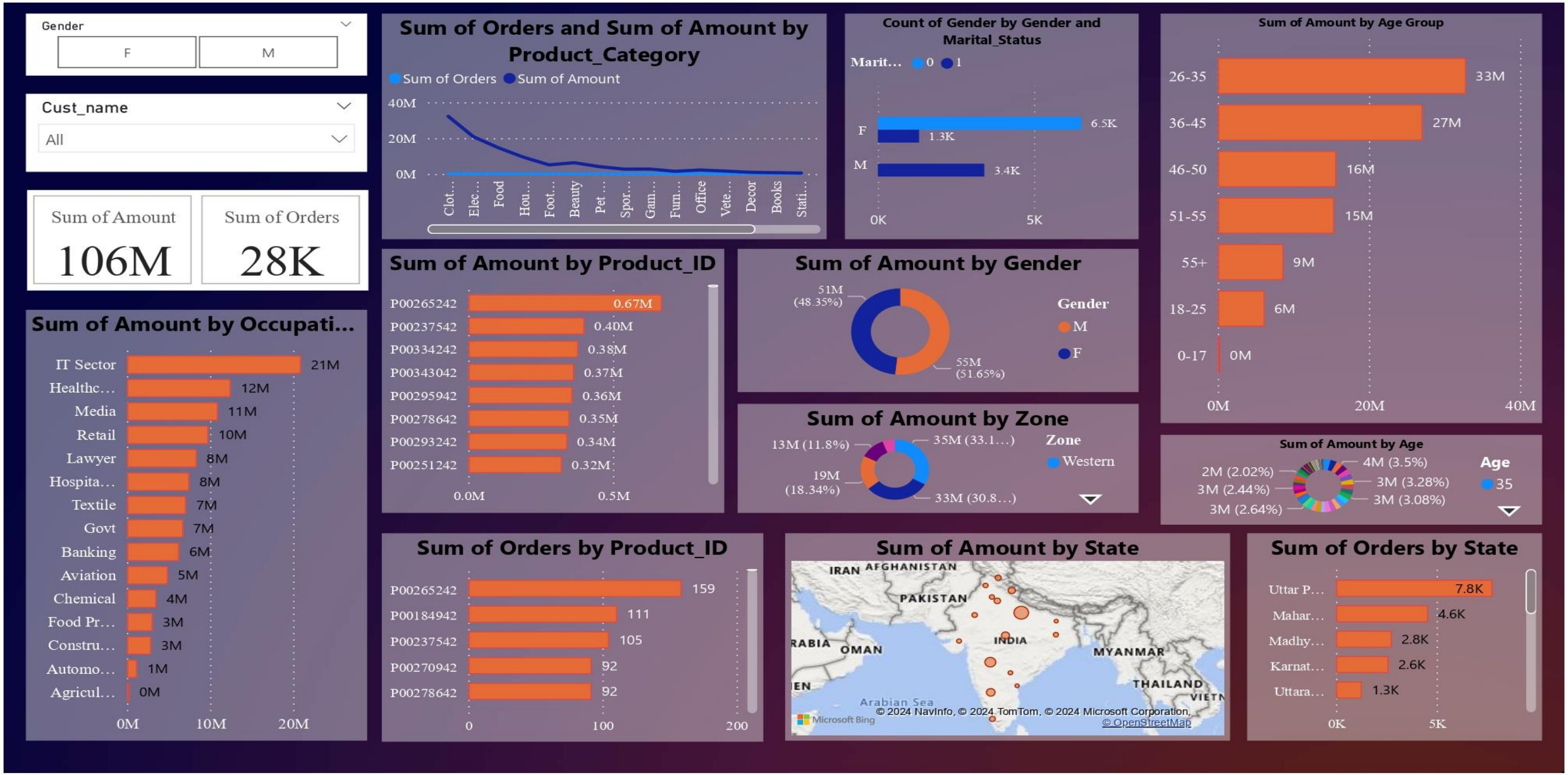
Data cleaning involves

Handling missing values.
Removing duplicates.

Formatting data types

Date string to datetime.
Standardize: Data types.
Enhance: Format for analysis.

CHAPTER 5: EXPLORATORY DATA ANALYSIS



CHAPTER 6:
CUSTOMER SEGMENTATIONS

AGE

SUM OF AMOUNT BY AGE GROUP
SUM OF AMOUNT BY AGE

GENDER

- COUNT OF GENDER AND MARITAL STATUS
- SUM OF AMOUNT BY GENDER

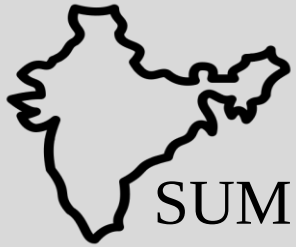
ZONE

SUM OF AMOUNT BY STATE

AMOUNT

SUM OF AMOUNT BY OCCUPATION

STATE



SUM OF ORDERS BY STATE
SUM OF AMOUNT BY STATE

PRODUCT CATEGORY

SUM OF AMOUNT BY PRODUCT CATEGORY & ID
SUM OF ORDERS BY PRODUCT CATEGORY & ID

CHAPTER 7
SALES PREDICTION

	GENGER & MARTIAL STATUS	AGE GROUP	AGE
HIGH	MALE - 55M (51.65%)	26 – 35	35
LOW	FEMALE - 51M (48.35%)	0 - 17	12

	OCCUPATION	PRODUCT ID	ORDERS
HIGH	IT SECTOR	P00265242	159
LOW	AGRICULTURE	P00312942	1

	SALES CATEGORY	AMOUNT	STATE
HIGH	CLOTHING [32199912]	21 M	UTTAR PRADESH
LOW	HAND & POWER TOOLS [133950]	0M	GUJRATH

CHAPTER 8: RECOMMENDATIONS

INVESTS

CATEGORIES

CLOTHING & APPERAL
FOOD
ELECTROICS

ZONE - WESTERN

STATE

MAHARASTHA
JHARKHAND
RAJASTAN

GENDER - UN-MARRIED MALE

OCCUPATION - IT

DISREGARD

CATEGORIES

AUTO
TUPPERWARE
HAND & POWER TOOLS

ZONE - NORTHERN

STATE

GUJARATH
BIHAR
TELANGANA

GENDER - MARRIED FEMALE

OCCUPATION - AGRICULTURE

CHAPTER 9: CONCLUSION

Married women age group 26-35 yrs. from UP, Maharashtra and Karnataka working in IT, Healthcare and Aviation are more likely to buy products from Food, Clothing and Electronics category

LINK
GitHub: https://github.com/rishabhnmishra/Python_Diwali_Sales_Analysis