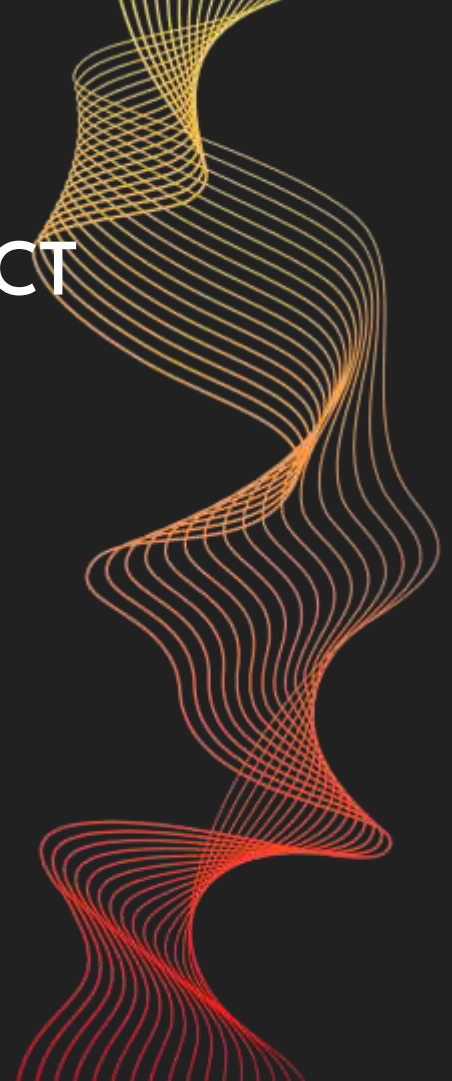# FOUNDATION OF ANALYTICS PROJECT

SURAJ HONDAPPANAVAR
RA2111003010270
D1

Exploratory Data Analysis of Store Data

This presentation is an in-depth analysis of store data. It covers a range of aspects of the data set and provides meaningful conclusions about the data.

This project underscores the importance of data-driven decision-making in achieving business success and provides a blueprint for leveraging data to optimize sales and customer engagement.
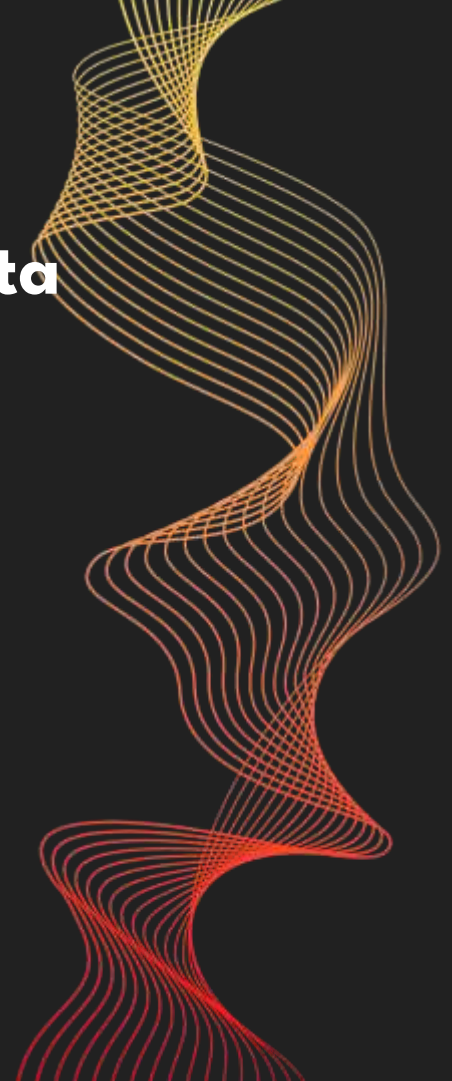
Abstract

Focuses on providing a comprehensive annual sales report for a retail store.

The primary objective is to equip the store with insights that can help them better understand their customer base and formulate strategies to enhance sales in the upcoming year.

Through the analysis of a dataset containing valuable information, we aim to answer critical questions, including comparing sales and orders, pinpointing the highest sales month, evaluating gender-based purchasing trends, and identifying the most impactful sales channels and product categories.
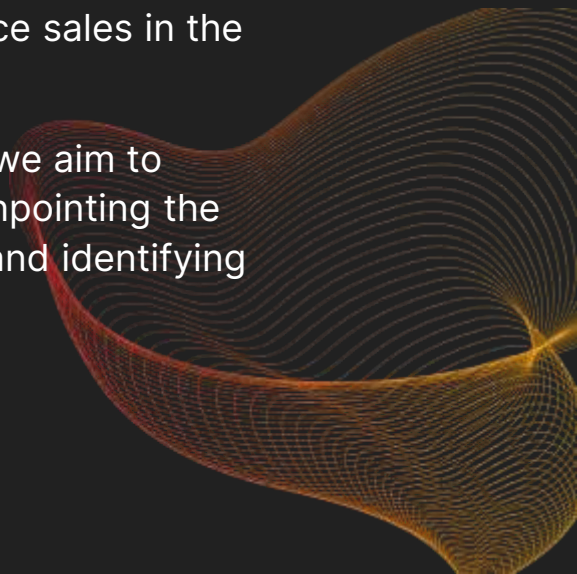
Introduction

This project seeks to address a series of pivotal questions.

We will compare sales and orders to understand their relationship, determine which month experienced the highest sales and orders, analyze the gender-based purchasing habits of customers in the year 2022, investigate the various order statuses for the same year, identify the top states contributing to sales, and explore the relationship between customer age and gender.
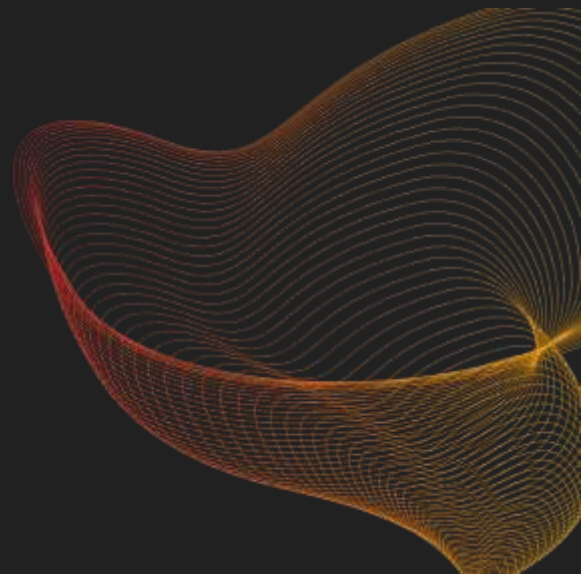
Additionally, we will assess the contribution of different sales channels and unveil the highest-selling product categories.

Dataset Description

- Order ID
- Gender
- Age
- Date
- Month
- Status
- Channel (sites name)

- Category (type of dress)
- Size
- Quantity
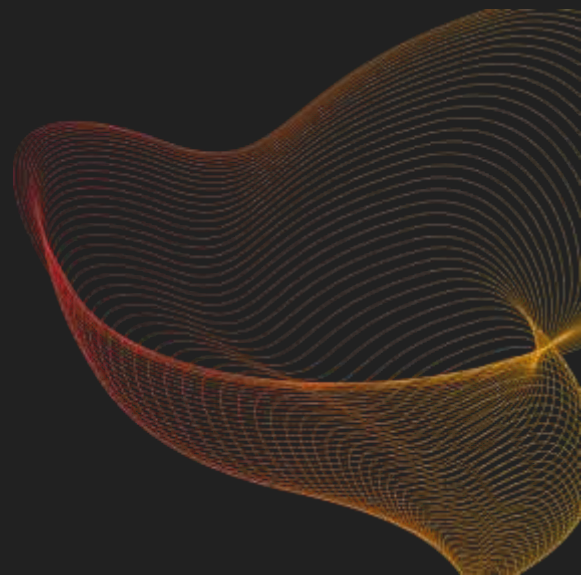- Amount
- Shipping city state
- Shipping postal code

Loading necessary Libraries

Import **numpy** as np

import **pandas** as pd

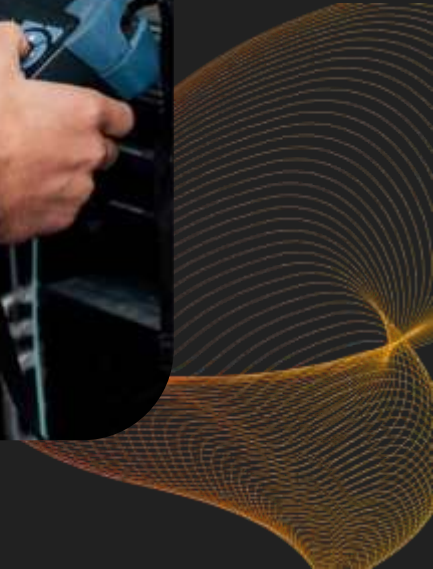import **matplotlib.pyplot** as plt

import **seaborn** as sns

Loading Dataset

```python
# Loading Dataset

df = pd.read_csv('store_sales_data.csv')


# Display the first few rows of the dataset

df.head()
```
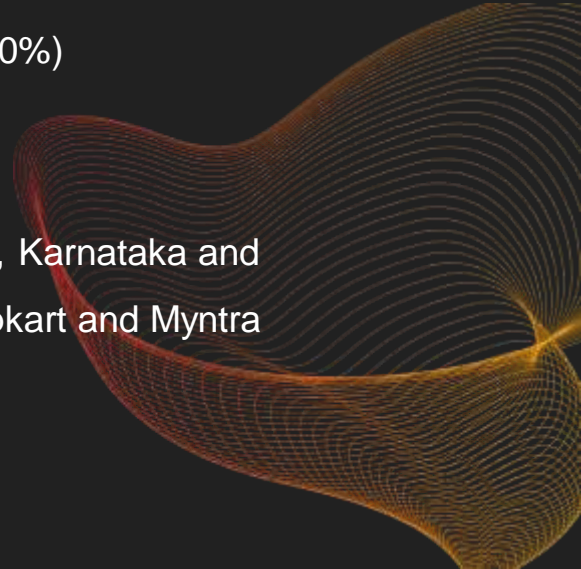
Detailed Analysis

Sample Insights:

- Women are more likely to buy compared to men (approx. 65%)

- Maharashtra, Karnataka and Uttar Pradesh are the top 3 states (approx. 35%)

- Adult age group (30-49 yrs) is max contributing (approx. 50%)

- Amazon, Flipkart and Myntra channels are max contributing (approx. 80%)

Final Conclusion to improve Store Sales:

Target women customers of age group (30-49 yrs) living in Maharashtra, Karnataka and Uttar Pradesh by showing ads/offers/coupons available on Amazon, Flipkart and Myntra

Thank you for your time ☺