REPORT ON SNITCH FASHION SALES

Project Objective:
- To evaluate overall sales trends of Snitch Fashion by analyzing total sales, monthly/yearly growth, and product-wise performance, helping to identify high-performing and low-performing products.
- To study sales distribution across regions, categories, and customer segments in order to understand buying patterns and customer preferences, supporting better marketing and inventory decisions.
- To analyze discounts, and revenue contribution of each product/category, enabling management to optimize pricing strategies, reduce losses, and increase overall profitability.

Dataset Description:
     I have done analysis on snitch fashion sales data set for my coding challenge. The type of data is structured data. The data is organized in rows and columns in a tabular format. Each column has a predefined meaning such as sales, profit, and product category.

What i explore : The data set contains 2,500 sales records with product, sales, and profit details in a structured format. Important columns such as Units Sold, Unit Price, and Discount (%) have many missing values, affecting data accuracy. Dresses and T-Shirts appear most frequently in orders, showing higher customer demand compared to other categories.

Column Description

Column Name	Description
Order_ID	Unique identifier for each sales order.
Customer_Name	Name of the customer who placed the order
Product_Category	Category to which the product belongs
Product_Name	Name of the product Sold
Product_ID	Unique identifier assigned to each product.
Unit_Sold	No of units sold in a particular order
Unit_Price	Price per unit of the product
Discount%	Discount percentage applied to the product.
Revenue	Total revenue from the sale after discount.

Order_Date	Date on which the order was placed.
City	Unique identifier for the city where the sale occurred.
Segment	Customer segment (B2B or B2C).
Profit	Profit earned from the transaction.

Data cleaning & transformation:

1. Data Import :
- The data set was imported into Microsoft Excel.
- All tables were converted into Excel Tables using Ctrl +T for better structure and analysis.

2. Remove Duplicates :

- Duplicate records were identified using Data - Remove Duplicate
- Duplicates were removed based on key columns such as Order Id and product Name.

3. Handle Missing Values

- Missing Unit Price values were imputed using the average price of the same product (Product_Name) to maintain pricing consistency and avoid distortion in sales analysis. This formula is used to handle missing values in the Unit Price column by imputing them with the average price of the same product, while keeping existing prices unchanged
  =IF(ISBLANK([@[Unit_Price]]),AVERAGEIF([Product_Name],[@[Product_Name]],$F$2:$F$2392),[@[Unit_Price]])
- Missing Discount values were replaced with 0 because a blank discount implies no discount was applied. This ensures accurate calculation of sales and profit without inflating or deflating revenue. For Unit Sold
- =IF(ISBLANK([@[Units_Sold]]),MEDIAN(E:E),IF([@[Units_Sold]]=0,MEDIAN(E:E),[@[Units_Sold]]))

4. Data Types
Order date column was formatted as Short Date, unit price, unit sold were formatted as numeric values. Currency format was applied sales related column (Total Revenue).

5. Create Calculated Columns
- Customer_name, product category, product name and city column trim and cleaned using =proper() and for space =TRIM(Substitute(B2,char(160),"")).

- City Column bangalorere and hyderabaddd replaced to Hyderabad and Bangalore using find and replace.
- Segment column =PROPER(TRIM(J2)) Segment values were cleaned to ensure consistent categorization for accurate aggregation and analysis.
- Sales Amount Unit Price × Units Sold × (1 − Discount) "Sales Amount was calculated by multiplying Unit Price and Units Sold, adjusted for Discount. This ensures net revenue is captured accurately"=F2*E2*(1-G2)
- Profit Since Cost Price was not available, Profit analysis was limited or derived based on assumptions where applicable. Negative profit indicates loss, so I did not change it in the original data. Changing raw values would misrepresent business performance.

6. Formulas Used

Total Sales - sum of sales amount =SUM(H2:H2392)

Total Profit - sum of profit =SUM(M2:M2392)

Average Profit - average of profit =Average(M2:M2392)

Count of Total Order - order count =COUNT(A2:A2392)

Conditional formula Profit Status (Profit / Loss) =IF(L2>0,"Profit","Loss").
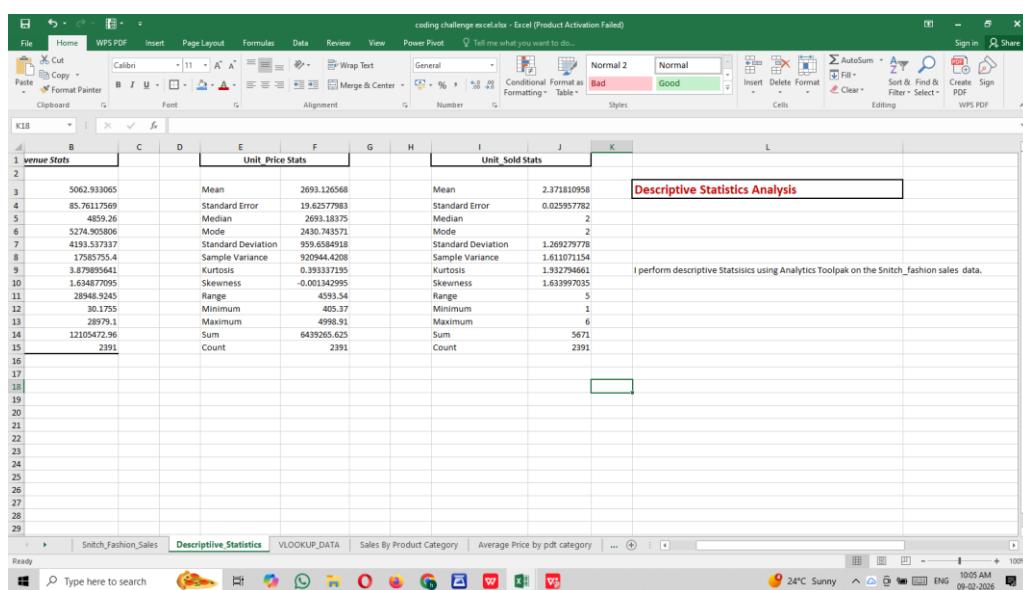
Total sales for B2B segment Calculates total Sales_Amount for B2B customers only.
=SUMIF([Segment],"B2B",H2:H2392)

7. Conditional Formatting

Conditional formatting applied to total revenue and profit using data bars and for profit icon set were used to highlight which value is high.

8. Descriptive Statistics

I perform descriptive Statsisics using Analytics Toolpak on the Snitch_fashion sales data. Descriptive statistics were used to summarize sales data using measures such as mean, minimum, maximum, and standard deviation. These measures helped in understanding the overall distribution, variability, and performance trends of Snitch Fashion sales.

9. Look Up and reference function

Data is vertical (columns like Order ID, Product, Sales, Profit),Lookup value is in the first column. I duplicated the data set using the VLOOKUP function by taking Order_ID as the lookup value. Product Name, Sales Amount, and Profit were fetched using their respective column index numbers =VLOOKUP(A2,'[Snitch_Fashion_Sale]Snitch Fashion_Sales'!A:O,4,FALSE)

Visualization and Insights Arrived with screenshot of visualization

Sales By Product Category

This summarizes total sales for each product category such as Jeans, T-Shirts, Shoes, and Accessories. It helps identify which product category generates the highest revenue and supports category-level sales analysis.

The column chart visually compares sales across product categories. Taller bars indicate higher sales, making it easy to identify top-performing and low-performing categories at a glance.

Average Price By Product Category
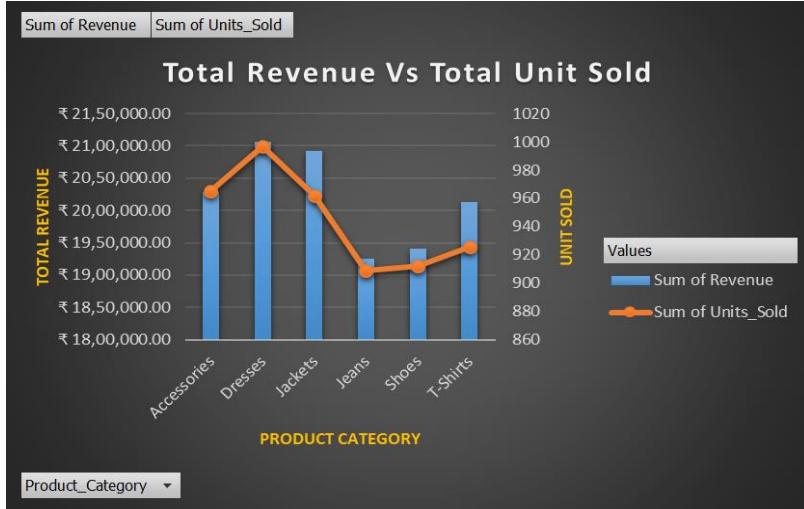
This calculates the average selling price for each product category by grouping products into categories and applying the average function on the price field. It helps compare how product pricing differs across categories in Snitch Fashion.

This chart displays the average selling price of products within each category, helping to compare pricing levels among categories.

Total Revenue Vs Total Unit Sold

This summarizes total revenue and total units sold by aggregating sales amount and quantity from the Snitch Fashion sales data. It helps compare how sales volume relates to revenue generation across products, categories, or time periods.

This chart compares total revenue with total units sold, helping to understand how sales volume relates to revenue generation.

Sales By City
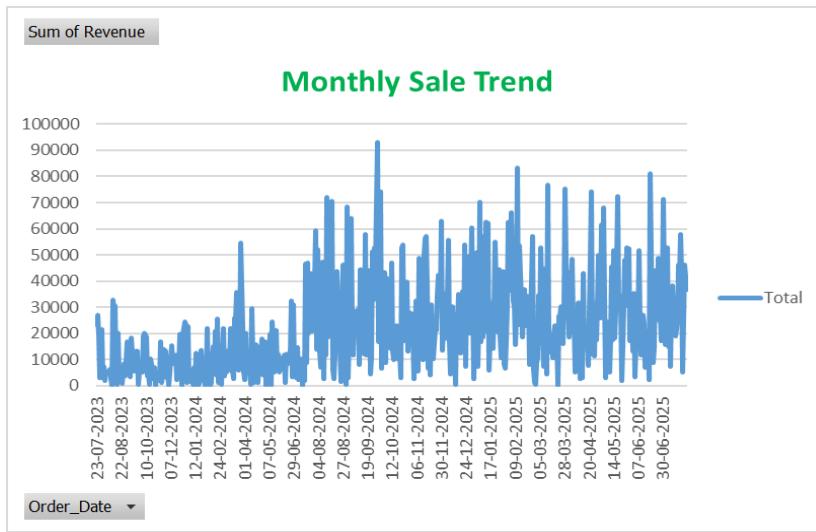
This compares sales performance across different cities. It helps understand geographical demand patterns and identifies high-performing and low-performing markets.

This chart displays sales contribution from different cities, highlighting geographical performance.

Monthly Sales Trend
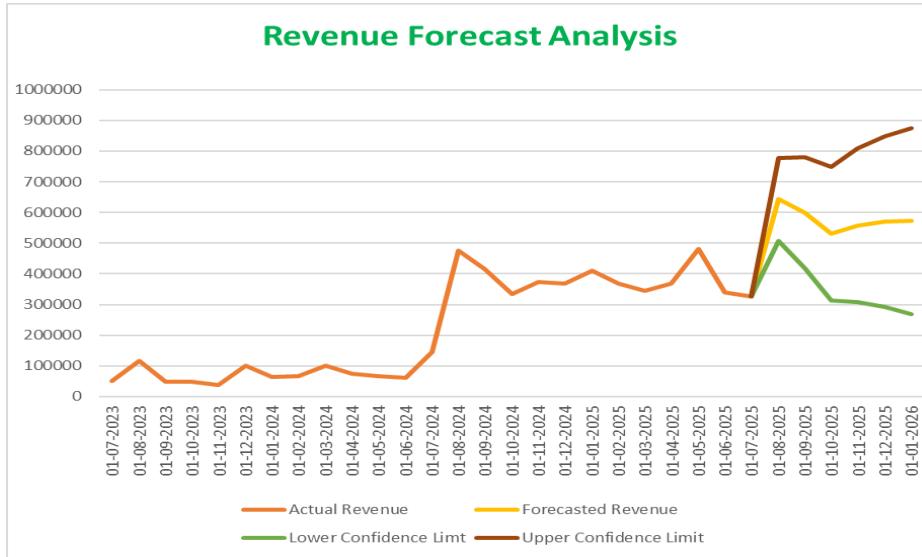
This groups sales data by order date at the monthly level and calculates total sales for each month, helping to visualize how Snitch Fashion sales change over time.

This chart shows how Snitch Fashion sales vary over different months, helping to identify growth patterns, declines, and seasonality in sales performance.

Revenue Forecast

This Table was created by grouping sales data by **Order Date (Month and Year)** and calculating **Total Revenue** for each period. This Pivot Table summarizes historical monthly revenue and serves as the base data set for trend analysis and forecasting.

Actual Revenue This line represents the actual monthly revenue generated by Snitch Fashion based on historical sales data. It shows past performance, fluctuations, and growth patterns over time.

Forecast-ed Revenue This line shows the expected future revenue calculated using Excel's forecasting method based on historical trends. It provides an estimate of how revenue is likely to behave in upcoming months.
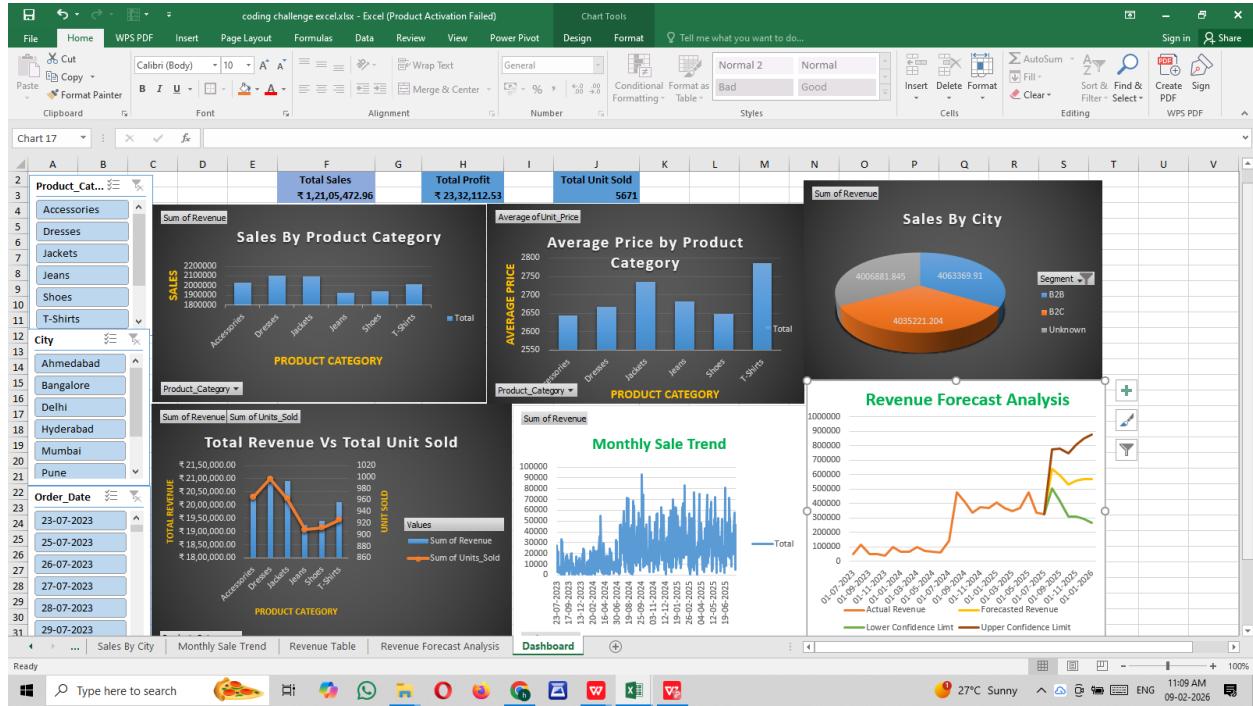
Lower Confidence Limit This line represents the minimum expected revenue range, indicating the worst-case scenario if sales decline below the forecast.

Upper Confidence Limit This line represents the maximum expected revenue range, indicating the best-case scenario if sales perform better than expected.

Dashboard Creation

This dashboard presents a comprehensive view of **Snitch Fashion's sales performance** across product categories, cities, customer segments, and time periods. It converts raw sales data into meaningful insights to support informed business decisions. **Key performance indicators** such as Total Sales, Total Profit, and Total Units Sold provide a quick snapshot of overall business performance. Product Category–wise Sales analysis highlights the contribution of each product category, helping identify top- and low-performing categories. The **Average Price by Product Category** analysis explains pricing differences

across categories and supports pricing strategy evaluation. The **City-wise Sales** analysis shows geographical revenue distribution, enabling better understanding of regional performance.

Product Category–wise Sales analysis highlights the contribution of each product category, helping identify top- and low-performing categories. The **Average Price by Product Category** analysis explains pricing differences across categories and supports pricing strategy evaluation. The **City-wise Sales** analysis shows geographical revenue distribution, enabling better understanding of regional performance. The **Total Revenue vs Total Units Sold** comparison helps analyze the relationship between sales volume and revenue generation. The **Monthly Sales Trend** analysis presents how sales evolve over time, identifying growth patterns and seasonal variations.

Additionally, the **Revenue Forecast Analysis** estimates future revenue using historical data and confidence limits, supporting planning and forecasting. Slicers for Product Category, City, Segment, and Order Date allow users to analyze Snitch Fashion sales for specific products, locations, and time periods.Using slicers updates all charts instantly, making it easy to compare sales performance and identify trends across different business dimensions. This dashboard primarily uses **descriptive analysis** to summarize historical sales performance. My dashboard focuses on what has already happened in sales, such as total revenue, average price, and monthly trends. It does not predict or recommend actions, so it falls under descriptive analysis. while revenue forecasting applies predictive analysis to estimate future trends.

 Business Interpretation

Product Insight: A few product categories generate most of the revenue, showing clear top performers.

Price vs Volume: Revenue is influenced by both higher prices and higher sales volume across categories.

Regional Performance: Certain cities contribute more to sales, indicating strong regional demand.

Trend & Forecast: Sales trends show steady growth, and forecasting supports future planning.

Conclusion:

The Snitch Fashion Sales Dashboard summarizes historical sales performance using descriptive analysis and supports future planning through revenue forecasting. It provides clear insights into product performance, regional sales, and trends, enabling data-driven business decisions.