# **FINAL PROJECT: Retail Performance & Profitability Analysis.**

### O INTRODUCTION:

In this project we can observe, Analyzing retail performance and profitability analysis using various tools, charts and insights. Which can be easily understandable the trends and sales by regions and quantity.

## O ABSTRACT:

Analyzes transactional retail data to uncover profit-draining categories, optimize inventory turnover, and identify seasonal product behavior. Can reduce business stakeholders time to analyze the profits of sales and other functionalities. By representing raw data into wonderful and attractive dashboard to analyze the data in form of graphical representation which can be easily explained and help stakeholders to prevent from loss and also predicts profit and growth of sales by region and quantity analysis.

## O TOOLS USED:

SQL (structured query language)

Python (Pandas, Numpy and Matplotlib)

Power Bi

#### O STEPS:

- 1. To begin with , opened kaggle and selected raw data set , downloaded it in csv format .
- 2. Later gone through the hints given in the project completion, and imported data into mysql workbench. Cleaned missing values and null values.

- 3. Used SQL to calculate profit margins by category and sub-category. By implementing order by and group by commands.
- 4. In addition to it, used python to run correlation between inventory and profitability after loading the whole data into jupyter notebook.
- 5. In conclusion, build attractive power bi dashboard with filters and slicers showing categories and sub-categories. Bar charts showing sales by quantity, Line chart representing sales by profit, Map visual for sales by region or country and Funnel visual for describing sales by segments.

#### CONCLUSION :

As after analyzing we can conclude with that the sales of appliances are high in the US and SOUTH AFRICA. Prices of common products should be increase as per having huge demand all over the map which tends to increase in profits further. Sales of heavy electrical appliances should be limited as many of them shows no intrest of purchasing it, which can lead to save time and investment in future.

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