SYSTEM 7

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MAC INFORMATION SYSTEM   
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**DATA ANALYST**

**INTERNSHIP FINAL REPORT**

**CERTIFICATE**

**ACKNOWLEDGEMENT**

I WOULD LIKE TO EXPRESS MY GRATITUDE TO MY MENTOR MR. ,AND THE TEAM AT G-TEC FOR GUIDING ME THROUGH MY DATA ANALYTICS INTERNSHIP. I ALSO THANK MY COLLEGE AND FACULTY FOR THEIR CONSTANT MOTIVATION AND SUPPORT.I WOULD LIKE TO THANK ALL MY COLLEAGUES WHO WORKED ALONG WITH ME IN THIS INTERNSHIP.

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**INTRODUCTION**

**WHAT IS DATA ANALYTICS ?**

Data analytics is a process of “converting raw data into actionable insights”. It includes a range of tools, technologies, and processes used to find trends and solve problems by using data. Data analytics can shape business processes, improve decision-making, and foster business growth.

**WHAT WAS MY INTERNSHIP ABOUT?**

**INTERNSHIP TITLE: DATA ANALYST**

**COMPANY: MAC INFORMATION SYSTEM**

**INTERN DESCRIPTION**:

I was responsible for working with business datasets and applying analytical techniques to extract insights and present data visually. The internship focused on practical skills like cleaning data, performing analysis and building dashboards.

**PROJECT**

**PROJECT NAME: SALES DASHBOARD (SWIGGY)**

**ROLE: PROJECT HEAD**

* Cleaned raw data using Excel functions **(IF, VLOOKUP, ISBLANK, etc.).**
* Performed data analysis such as trend identification and summary statistics.
* Created interactive dashboards in **Power BI to visualize KPIs.**
* Used **Power Query** for data transformation.
* Built calculated columns and measures using **DAX**.
* Presented insights to mentors and received feedback.

**KEY ACHIEVEMENTS:**

* Successfully built a **sales dashboard** that showed **regional performance, profit trends, and sales category-wise breakdown.**
* Identified that more than 80% of high-profit sales occurred in 3 key regions, helping with strategic decisions.
* **Category-Wise Sales Insight**:

Through detailed category-wise analysis, I discovered that the “Technology” category had the highest profit margin, while “Office Supplies” had high sales but lower profitability, guiding future discount and pricing strategies.

* **Built an Interactive Sales Trend Tracker:**

Created a monthly sales and profit trend line chart that allowed users to filter by region or product category, helping stakeholders monitor performance over time and identify seasonal trends.

**TOOLS USED**

**EXCEL**

**Purpose:**

Excel was used extensively during the initial stages of data analysis. It helped with data preprocessing , cleaning, and preliminary exploration.

**Key Functions and Features Used:**

• Data Cleaning: Removed duplicates, handled missing values using IF, ISBLANK, and IFERROR.

• Data Transformation: Used VLOOKUP, TEXT, LEFT, RIGHT, LEN, and DATE functions to standardize and manipulate data formats.

• Pivot Tables: Summarized large datasets to identify trends and patterns quickly.

• Charts: Created basic bar charts and pie charts for preliminary visualization.

**Why Excel?**

Excel offers a user-friendly interface and flexible formulas, making it ideal for quick exploration and manipulation of data before importing it into a visualization tool.

**POWERBI**

**Purpose:**

Power BI was used to create dynamic dashboards and perform in-depth data analysis. It allowed me to transform raw data into meaningful business insights using interactive visualizations.

**Key Features and Functions Used:**

* **Power Query:** For advanced data transformation (merging, filtering, and shaping data).
* **DAX (Data Analysis Expressions):** Created calculated columns and measures like Profit Margin, Total Sales, and Monthly Trends.
* **Visualizations:** Used a variety of charts such as bar graphs, pie charts, line charts, maps, and KPI cards.
* **Slicers & Filters:** Enabled interactivity, allowing users to filter data by category, region, and time.
* **Relationships & Model View:** Created relationships between multiple tables for accurate data modeling.

**Why Power BI?**

Power BI is ideal for presenting insights in a visually appealing and interactive way. It handles large datasets efficiently and supports advanced business intelligence techniques.

**DATASET DESCRIPTION**

**SOURCE OF DATASET:**

The dataset was provided as part of the internship project. It is a **real-world sample business dataset,** commonly used for sales and performance analysis in retail and e-commerce contexts.

**Dataset Overview:**

• Total Records (Rows): **2001**

• Total Columns (Features): **13**

• File Format: .**xls**

• Size: Approximately 1 MB

|  |  |
| --- | --- |
| COLUMN | DESCRIPTION |
| NAME | Name of the customer who placed the order |
| DATE | Date when the order was placed |
| PRODUCT NAME | Name of the food item ordered |
| CATEGORY | Food category (e.g., Breakfast, Snack) |
| QUANTITY | Number of units ordered |
| UNIT PRICE | Price per unit of the product |
| TOTAL SALES | Total revenue from the order (Quantity × Unit Price) |
| REGION | Geographic region of delivery (North, South, East, West) |
| SALES PERSON | Name of the salesperson who handled the transaction |
| PAYMENT METHOD | Method of payment used (e.g., UPI, Cash) |
| PROFIT | Net profit earned from the transaction |
| SALES PERFORMANCE | Classification of order performance (High, Low)IF SALES>10000,HIGH. |
| PROFIT MARGIN | Percentage of profit earned from the sale (calculated as Profit / Total Sales) |