DieBäckerei Sales Data Cleaning, Analysis, and Executive Dashboard

# Introduction

This project showcases an end-to-end data analysis workflow using Microsoft Excel. The dataset used in this analysis contains sales records for DieBäckerei. The objective was to clean the raw dataset, perform exploratory analysis through Pivot Tables, and design an interactive Executive Dashboard with KPIs and slicers for business decision-making.

# 1. Data Cleaning & Preparation

The raw data contained inconsistencies, duplicates, and unstructured date values. The following steps were performed to prepare the dataset for analysis:

- Corrected spelling errors in Branches and Products  
- Removed duplicate records to ensure data accuracy  
- Broke down the Date column into Year, Quarter, Month, Week of the Month, and Day of the Week  
- Added a Profit Check column to validate revenue and profit calculations  
- Converted the data sheet into a structured Excel Table for better referencing and scalability

# 2. Pivot Table Analysis

Multiple Pivot Tables were created to uncover key insights into sales, profitability, and performance trends. The Pivot Tables included:

- Revenue Per Year  
- Product P&L Stack  
- Product Value vs. Volume  
- Branch Profit Leaderboard  
- Unit Economics by Product  
- Top 5 Products by Revenue  
- Branch × Product Revenue Matrix  
- Profitability by Product  
- Revenue Share per Product  
- Branch P&L

# 3. Executive Dashboard

An interactive Executive Dashboard was created to provide business leaders with a single view of performance. The dashboard included the following slicers:

- Year  
- Quarter  
- Branch  
- Product

The dashboard design allows users to dynamically filter sales data, explore revenue drivers, and evaluate profitability across different levels of the business.

# 4. Key Performance Indicators (KPIs)

To measure business performance effectively, the following KPIs were tracked:

- Profit  
- Revenue  
- Cost  
- Profit Margin  
- Cost Margin

# 5. Business Insights & Impact

Through this project, several important insights were derived:

- Identified top-performing products and branches driving revenue  
- Highlighted underperforming areas requiring strategic focus  
- Created a decision-support tool to enable leadership to monitor performance across multiple dimensions  
- Enhanced data quality and governance by structuring and validating datasets

# Conclusion

This project demonstrates expertise in data cleaning, transformation, and visualization using Excel. By leveraging Pivot Tables and dashboards, complex sales data was transformed into actionable insights, helping stakeholders understand performance trends and make informed decisions.