■ Data Leverager – Power Query Transformation Project

ETL-only project focusing on data extraction, cleaning, preparation, and transformation using Power Query. No DAX or visualization involved.

Overview

This project simulates real-world data engineering tasks in Power BI. It involves connecting to multiple sources, applying complex transformations, and ensuring datasets are ready for analysis — without building visuals.

Sources Used

Source	Description
HTML Web Table	Extracted from Wikipedia (GDP, COVID stats)
Excel Folder Import	Appended Jan-Mar sales files from folder
Employee Dataset	Loaded from Excel with employee details

■ Transformations Applied

- Removed blanks, promoted headers, renamed columns
- Changed data types (with locale) for currency/dates
- Applied text functions (UPPER, LOWER, TRIM, CLEAN, REPLACE, SPLIT BY DELIMITER)
- Rounded revenue to 2 decimals, calculated profit
- Extracted Year, Month, Quarter from Order Date
- Created Fiscal Month and calculated Age from Birthdate
- Sales Category classification & added index columns
- Pivoted and unpivoted data
- Merged sales with employee data
- Appended monthly sales files
- Grouped data by region (Total Sales, Avg Order Value, Transaction Count)
- Data profiling with Column Profile, Distribution, Quality
- Dynamic folder paths with Parameters
- Simulated refresh with new monthly files

■ Challenges & Solutions

- $\bullet \quad \text{Data type mismatches} \to \text{Solved using Change Type with Locale}$
- $\bullet \quad \text{Duplicates \& null values} \rightarrow \text{Removed \& cleaned using Power Query tools}$
- Dynamic paths → Configured using Parameters
- ullet Refresh errors o Fixed by reviewing applied steps after source changes

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