**Sales History schema is used for**

organizing and analyzing sales data, helping businesses track sales performance, understand customer behavior, and evaluate profitability. It serves two main purposes:

* **OLTP -** managing sales transactions efficiently,
* **OLAP -** Analyzing trends, profitability, and other key metrics.

**With that data we can**

* track and analyze sales performance over time,
* learn more about customers preferences,
* measure how effective promotions are at driving sales,
* understand product demand and profitability

The schema follows a star schema design, with a central fact table (sales) surrounded by multiple dimension tables (customers, products, times, countries, channels, etc.). Some additional (costs, profits, supplementary\_demographics) enhance the schema for better analysis.

**Tables Description**

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| **Table/View Name** | **Used For** | **Additional Notes** |
| **COUNTRIES** | Stores information about countries and their regions/subregions. | Used to categorize sales and customers by geography. Includes historical names and region classifications; **Dimension Tables** |
| **CUSTOMERS** | Maintains customer details like name, demographics, address, and income level. | Helps analyze customer behavior, segmentation, and preferences. Linked to supplementary demographics for enhanced insights; **Dimension Table** |
| **CHANNELS** | Represents different sales channels (e.g., online, retail, catalog). | Used to analyze sales performance across channels. Includes classification and totals for each channel; **Dimension Table** |
| **TIMES** | Stores time-related data, including calendar and fiscal information. | Supports time-based analysis, e.g., daily, weekly, monthly, quarterly, and yearly sales trends; **Dimension Table** |
| **PRODUCTS** | Holds product details, including categories, pricing, and supplier information. | Essential for analyzing product performance and profitability. Includes subcategories and valid date ranges; **Dimension Table** |
| **PROMOTIONS** | Tracks promotional campaigns and their characteristics. | Analyzes the impact of promotions on sales and profitability. Includes cost, start, and end dates for each promotion; **Dimension Table** |
| **COSTS** | Stores unit costs and prices associated with specific products, promotions, channels, etc. | Enables cost analysis and supports profitability calculations. Linked to multiple dimensions via foreign keys; **Fact Tables** |
| **SALES** | The central fact table for storing sales transaction details. | Contains quantity sold, revenue generated, and links to customer, product, promotion, channel, and time dimensions; **Fact Table** |
| **PROFITS** | Calculates profitability metrics for sales transactions. | Includes costs, revenue, and derived fields like total cost and profit margins; **Fact Tables** |
| **SUPPLEMENTARY\_DEMOGRAPHICS** | Provides additional demographic information about customers. | Enhances customer segmentation with details like education, occupation, and purchase preferences; **Dimension Table** |