Data Model Documentation Template

Section	Details
Tables Used	Fact Table: • `Fact_sales` (main transactional table) Dimension Tables: • `Dim_country` – Country information • `Dim_city` – City, latitude, longitude • `Dim_customer` – Customer name, city • `Dim_product` – Product name, product class • `Dim_distributor` – Distributor name and ID • `Dim_sales_rep` – Sales representative details • `Dim_sales_team` – Sales team and manager info • `Dim_subchannel` – Subchannel and related Channel_ID • `Dim_channel` – Channel type • `Dim_month` – Month details Measure Table: • `Measure Table` – Contains calculated measures (e.g., Avg Sales)
Relationships	- Fact_sales → Dim_city: linked via `City_ID` - Dim_city → Dim_country: linked via `Country_ID` - Fact_sales → Dim_customer: linked via `Customer_ID` - Fact_sales → Dim_product: linked via `Product_ID` - Fact_sales → Dim_distributor: linked via `Distributor_ID` - Fact_sales → Dim_sales_rep: linked via `Sales_rep_ID` - Dim_sales_rep → Dim_sales_team: linked via `Sales_team_ID` - Fact_sales → Dim_subchannel: linked via `Subchannel_ID` - Dim_subchannel → Dim_channel: linked via `Channel_ID` - Fact_sales → Dim_month: linked via `Month_ID`
Key Calculations / Measures	- Total Sales = `SUM(Fact_sales[Sales])` - Average Sales = `AVERAGE(Fact_sales[Sales])` (already in Measure Table) - Total Quantity = `SUM(Fact_sales[Quantity])` - Avg Price per Unit = `DIVIDE(SUM(Fact_sales[Sales]), SUM(Fact_sales[Quantity]))` - Sales by Channel / Subchannel = Using `Dim_subchannel` and `Dim_channel` relationships

- Sales by Region = Using `Dim_city` → `Dim_country` hierarchy

Notes

- The model is a hybrid schema: mostly Star Schema with some Snowflaked dimensions (City → Country, Sales Rep → Sales Team, Subchannel → Channel).
- Ensure one-to-many relationships are single-directional for performance. - All dimension tables have unique keys (e.g., `Customer_ID`, `Product_ID`, etc.).
- Consider flattening snowflaked dimensions if dataset grows large.
- Time-based calculations rely on `Dim_month` (use for YTD, QoQ comparisons).

Diagram:

DATA MODEL