Dimension and fact

 **Branch Dimension Table**

* **branch\_id** (PK)
* branch\_name
* branch\_manager
* branch\_phone\_number
* branch\_opening\_date
* branch\_type
* branch\_stock\_market
* branch\_stock\_symbol
* branch\_country\_code

 **Time Dimension Table**

* **time\_id** (PK)
* year
* month
* day
* hour
* minute
* second
* quarter
* season
* is\_weekend

 **Product Dimension Table**

* **product\_id** (PK)
* product\_name
* brand
* category
* price
* quantity\_in\_stock
* release\_date
* expiration\_date
* weight
* dimensions

 **Customer Dimension Table**

* **customer\_id** (PK)
* first\_name
* last\_name
* age
* email
* gender
* membership\_status
* join\_date
* country
* phone\_number

 **Salesperson Dimension Table**

* **salesperson\_id** (PK)
* first\_name
* last\_name
* age
* email
* country
* postal\_code
* hire\_date
* sales\_region
* sales\_target

**act Table: Sales Fact Table**

This fact table will include foreign keys from each of the dimension tables, as well as measures that can help in decision-making.

* **fact\_id** (PK)
* **branch\_id** (FK to Branch Dimension)
* **time\_id** (FK to Time Dimension)
* **product\_id** (FK to Product Dimension)
* **customer\_id** (FK to Customer Dimension)
* **salesperson\_id** (FK to Salesperson Dimension)
* **total\_sales**: Measure (sum of total sales)
* **quantity\_sold**: Measure (number of items sold)
* **discount\_given**: Measure (amount of discounts offered)
* **sales\_target\_achieved**: Boolean (whether target was achieved)
* **profit\_margin**: Measure (total sales minus costs)

**Relationship Between Tables:**

1. **Branch Dimension**: Relates to the **branch\_id** in the fact table, representing the location of the sale.
2. **Time Dimension**: Relates to the **time\_id** in the fact table, used for analyzing sales by time (day, month, year, etc.).
3. **Product Dimension**: Relates to the **product\_id**, used for analyzing sales of specific products, quantities, and pricing.
4. **Customer Dimension**: Relates to the **customer\_id**, used for customer behavior analysis, segmenting by demographic data.
5. **Salesperson Dimension**: Relates to the **salesperson\_id**, used for tracking individual sales performance.