Logo

Description automatically generated

Project Data Warehousing

Phase 1

TA: Ahmed Galal

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Source ERD

Diagram, schematic

Description automatically generated

Dimensional Model

a. This model is based on a specific type of business called an E-commerce system that stores information about sales, supplying, payments, etc.

b.

Fact Table 1: Quantity purchased of each product to each customer monthly basis.

Fact Table 2: The Quantity purchased for each product in a specific store monthly basis.

Fact Table 3: Revenue of each product in each store on monthly basis.

Fact Table 4: Count the Customers from each Region to pay with a Specific Payment Strategy monthly basis (Factless Fact Table).

c.

Dimensions: -

Date: This Dimension reflects the time when the product was sold like a month we will use in (fact Table1,2,3,4).

Customer: This dimension expresses all customer details (CustomerId, name, DateOfBirth, gender, customer type) we will use in (fact Table 1,4).

product: This dimension expresses all product details (Productid, name, Price) we will use in (fact Table 1,2,3).

store: This Dimension expresses all store details (StoreId, name, regionId) we will use in (fact Table 2,3).

Region: This dimension expresses all region details (regionId, name, city) we will use in (Fact Table 4).

Payment Strategy: This dimension expresses all payment details (Payment Strategy Name, Payment Strategy Id) we will use in (fact Table 4).

dimension type: -

Slowly Changing Dimensions (customer) Dimension is slowly changing.

confirmed dimensions (customer, product, store) These share several facts.

Static Dimensions (Date) are those dimensions not extracted from the original data source but created within the data warehouse context.

d.

Measure: -

Quantity: The quantity of the product that was purchased. (In Fact, Table 1,3)

Quantity: The quantity of the product that was purchased in the store. (In Fact, Table 2)

Price: the price of the product.

Revenue: The revenue generated by the sale.

Measure type: -

Fully additive (Quantity, revenue) can be aggregated across all dimensions.

Nonadditive(price) is completely non-additive and cannot be aggregated across all dimensions.

e. The Diagram

