Experiment No :- 02

Aim:- Implementation of all dimension tables and fact tables based on experiment 1 case study.

Theory:-

Fact tables and dimension tables are key components of star or snowflake schemas. Fact tables store numeric data like sales or order amounts and include foreign keys linking to dimension tables. Dimension tables provide context with descriptive details like product names or customer demographics. The main difference between Fact or Reality table and the Dimension table is that dimension table contains attributes on that measures are taken actually table

What is a fact table?

● A fact table is a central table in a dimensional model, often used in data warehousing and business intelligence. It stores quantitative data (facts) about a business process, along with foreign keys that link it to dimension tables.

What is a dimension table?

● A dimension table in data warehousing stores descriptive information or attributes related to the facts stored in a fact table. It provides context and helps analyze the data in the fact table

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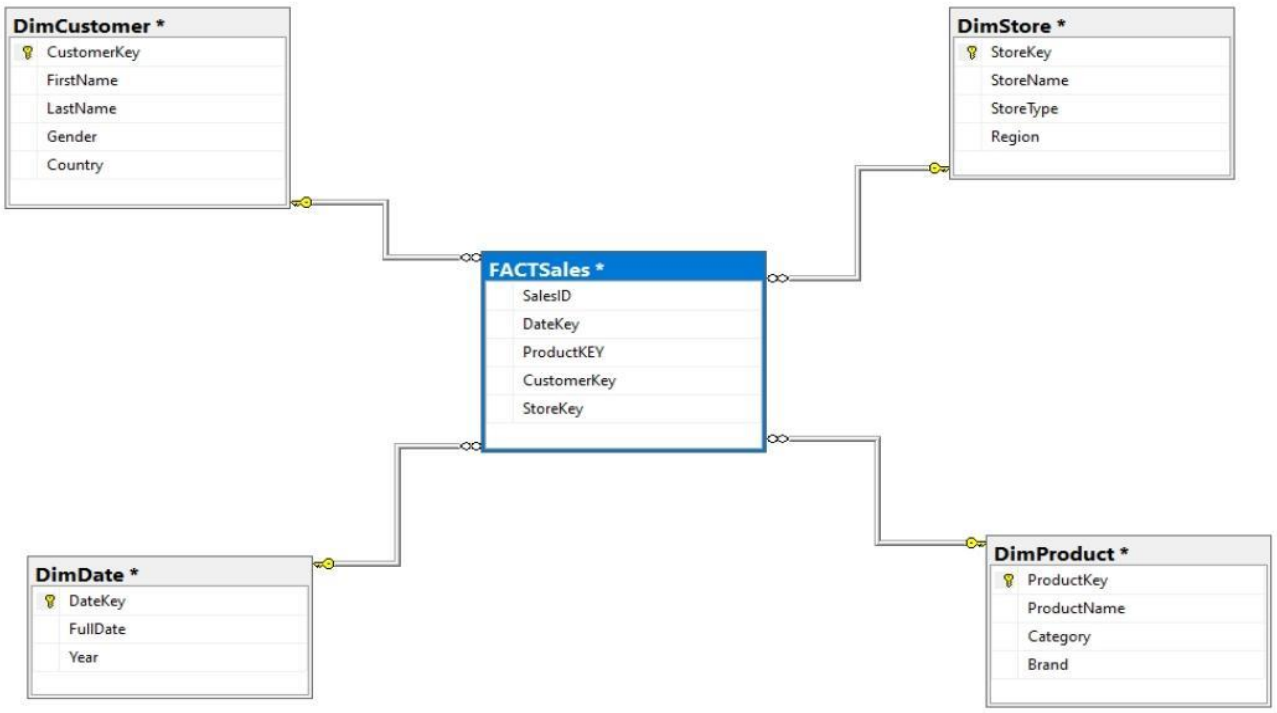
Customer	Date	Store	Product	Contact	Supplier
CustomerKey	DateKey	StoreKey	ProductKey	CustomerKey	StoreKey
FirstName	FullDate	StoreName	ProductName	Number	SupplierKey
LastName	Year	StoreType	Category		
Gender		Region	Brand		
Country					

STAR SCHEMA:-

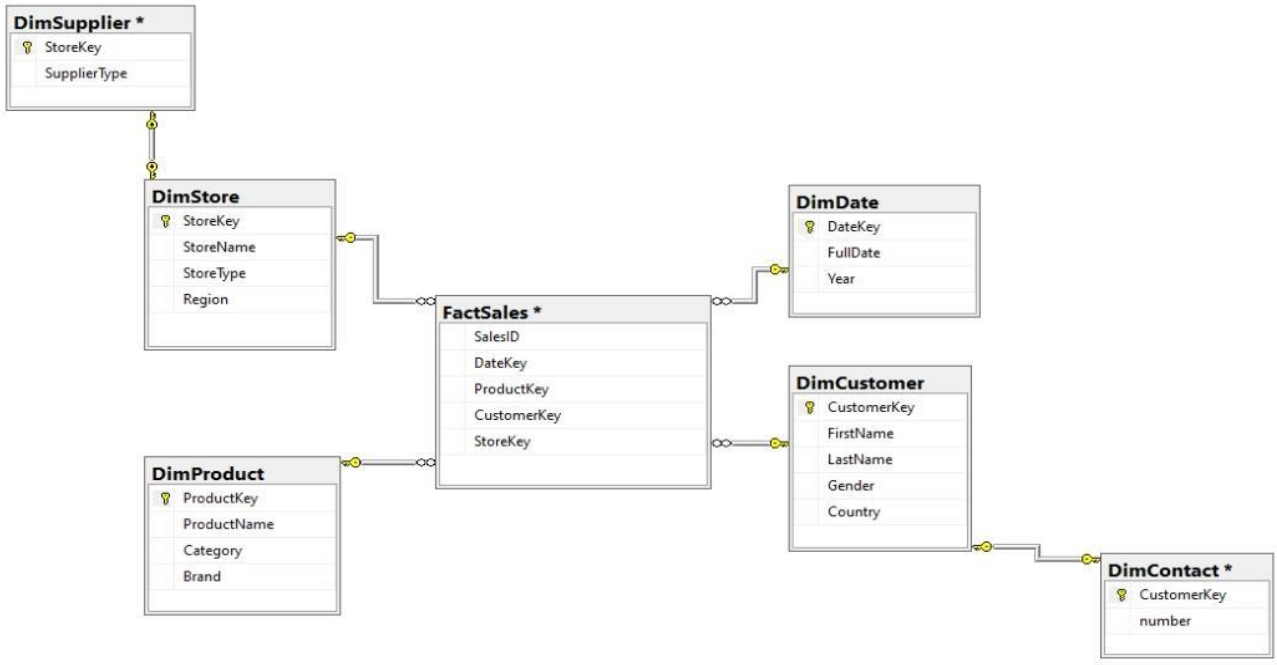



```
CREATE TABLE FactSales (
    SalesID INT PRIMARY KEY,DateKey INT,ProductKey INT, CustomerKey
INT, StoreKey INT
);
CREATE TABLE DimDate (
    DateKey INT PRIMARY KEY,  FullDate DATE, Year INT
);
CREATE TABLE DimProduct (
    ProductKey INT PRIMARY KEY, ProductName VARCHAR(100),  Category
VARCHAR(50),  Brand VARCHAR(50),

);
CREATE TABLE DimCustomer (
    CustomerKey INT PRIMARY KEY, FirstName VARCHAR(50), LastName
VARCHAR(50),  Gender CHAR(1), Country VARCHAR(50),

);
CREATE TABLE DimStore (
    StoreKey INT PRIMARY KEY, StoreName VARCHAR(100), StoreType
VARCHAR(50),Region VARCHAR(50)
);
```

SNOWFLAKE SCHEMA:-




```
CREATE TABLE FactSales (
    SalesID INT PRIMARY KEY,DateKey INT,ProductKey INT, CustomerKey INT,
StoreKey INT);

CREATE TABLE DimDate (
    DateKey INT PRIMARY KEY,  FullDate DATE, Year INT);

CREATE TABLE DimProduct (
    ProductKey INT PRIMARY KEY, ProductName VARCHAR(100),   Category
VARCHAR(50),  Brand VARCHAR(50),   );

CREATE TABLE DimCustomer (
    CustomerKey INT PRIMARY KEY, FirstName VARCHAR(50), LastName
VARCHAR(50),  Gender CHAR(1), Country VARCHAR(50),  );
```

```
CREATE TABLE DimStore (
    StoreKey INT PRIMARY KEY, StoreName VARCHAR(100), StoreType
VARCHAR(50),Region VARCHAR(50));

create table DimSupplier(
        SupplierKey int Primary key,SupplierType varchar(50));

create table DimContact(
       ContactId int primary key,number int);
```

Conclusion:- We have successfully studied implementation of all dimension tables and fact tables based on experiment 1 case study.