```sql
CREATE table Time_dw5

(time_id int PRIMARY KEY,day DATE NOT NULL,

month varchar(255) NOT NULL,

qt varchar(255) NOT NULL,

yr varchar(255) NOT NULL);

INSERT INTO Time_dw5(time_id,day,month,qt,yr)

VALUES (101,'2021-01-17','january','Q1','2021');

INSERT INTO Time_dw5(time_id,day,month,qt,yr)

VALUES (102,'2021-02-14','february','Q1','2021');

INSERT INTO Time_dw5(time_id,day,month,qt,yr)

VALUES (103,'2021-05-21','may','Q2','2021');

INSERT INTO Time_dw5(time_id,day,month,qt,yr)

VALUES (104,'2021-06-26','june','Q2','2021');

select*from Time_dw5;



-- Creating the table Product_dw

CREATE TABLE Product_dw (

prod_id INT PRIMARY KEY,

prod_name VARCHAR(60) NOT NULL,

prod_category VARCHAR(255) NOT NULL,

brand_name VARCHAR(255) NOT NULL,

suppl_name VARCHAR(255) NOT NULL,

prod_price INT

);

-- Inserting data into Product_dw

INSERT INTO Product_dw (prod_id, prod_name, prod_category, brand_name, suppl_name, prod_price)
VALUES (1, 'Rice', 'Grocery', 'Dawat', 'Ramesh', 140);
```

```sql
INSERT INTO Product_dw (prod_id, prod_name, prod_category, brand_name, suppl_name, prod_price)
VALUES (2, 'Sugar', 'Grocery', 'Dawat', 'Ramesh', 50);

INSERT INTO Product_dw (prod_id, prod_name, prod_category, brand_name, suppl_name, prod_price)
VALUES (3, 'Kurta', 'Cloth', 'Max', 'Lila', 500);

INSERT INTO Product_dw (prod_id, prod_name, prod_category, brand_name, suppl_name, prod_price)
VALUES (4, 'Jacket', 'Cloth', 'Max', 'Lila', 700);


-- Selecting all records from Product_dw

SELECT * FROM Product_dw;



-- Creating the table Location_dw

CREATE TABLE Location_dw (

loc_id INT PRIMARY KEY,

street VARCHAR(60) NOT NULL,

city VARCHAR(255) NOT NULL,

state VARCHAR(255) NOT NULL,

country VARCHAR(255) NOT NULL

);
-- Inserting data into Location_dw

INSERT INTO Location_dw (loc_id, street, city, state, country)

VALUES (201, 'MLROAD', 'MUMBAI', 'MAHARASHTRA', 'INDIA');

INSERT INTO Location_dw (loc_id, street, city, state, country)

VALUES (202, 'AIROAD', 'MUMBAI', 'MAHARASHTRA', 'INDIA');

INSERT INTO Location_dw (loc_id, street, city, state, country)

VALUES (203, 'BIROAD', 'KOLKATA', 'WESTBENGAL', 'INDIA');

INSERT INTO Location_dw (loc_id, street, city, state, country)

VALUES (204, 'DBROAD', 'KOLKATA', 'WESTBENGAL', 'INDIA');

-- Selecting all records from Location_dw

SELECT * FROM Location_dw;
```

```sql
-- Creating the Fact_sales table

CREATE TABLE Fact_sales (

prod_id INT REFERENCES Product_dw(prod_id),

time_id INT REFERENCES Time_dw5(time_id),

loc_id INT REFERENCES Location_dw(loc_id),

Number_of_unit_sold INT NOT NULL,

Total_sales INT NOT NULL

);

-- Inserting data into Fact_sales

INSERT INTO Fact_sales (prod_id, time_id, loc_id, Number_of_unit_sold, Total_sales) VALUES (1, 101, 201, 400, 90000);

INSERT INTO Fact_sales (prod_id, time_id, loc_id, Number_of_unit_sold, Total_sales) VALUES (1, 102, 201, 400, 80000);

INSERT INTO Fact_sales (prod_id, time_id, loc_id, Number_of_unit_sold, Total_sales) VALUES (1, 103, 201, 400, 70000);

INSERT INTO Fact_sales (prod_id, time_id, loc_id, Number_of_unit_sold, Total_sales) VALUES (1, 104, 201, 400, 50000);

-- Selecting all records from Fact_sales

SELECT * FROM Fact_sales;



-- Query to group by year and sum total sales

SELECT Time_dw5.yr, SUM(Total_sales)

FROM Fact_sales

JOIN Product_dw ON Fact_sales.prod_id = Product_dw.prod_id

JOIN Time_dw5 ON Fact_sales.time_id = Time_dw5.time_id

GROUP BY Time_dw5.yr;
```

```sql
-- Query to group by year and sum total sales

SELECT Time_dw5.yr, SUM(Total_sales)

FROM Fact_sales

JOIN Product_dw ON Fact_sales.prod_id = Product_dw.prod_id

JOIN Time_dw5 ON Fact_sales.time_id = Time_dw5.time_id

GROUP BY Time_dw5.yr;



-- Slice operation

SELECT prod_name, Total_sales

FROM Fact_sales

INNER JOIN Product_dw ON Fact_sales.prod_id = Product_dw.prod_id;



-- Dice operation

SELECT prod_name, Total_sales, day

FROM (Fact_sales

INNER JOIN Product_dw ON Fact_sales.prod_id = Product_dw.prod_id)

JOIN Time_dw5 ON Fact_sales.time_id = Time_dw5.time_id;
```