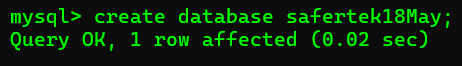
**Safertek Backend Task 18 May 2024**

**N Krishna Chowdary Pathuri**

**2100032143**

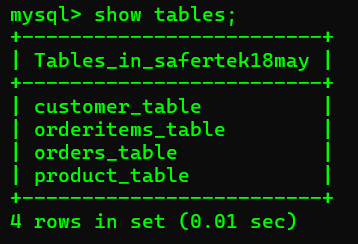
I have created a database named **safertek18may** to store the data about the task.

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Create four tables.

* **customer\_table** to store customer details.
* **product\_table** to store product details.
* **orders\_table** to store details about orders made by customers.
* **orderitems\_table** to store details about items in each order.

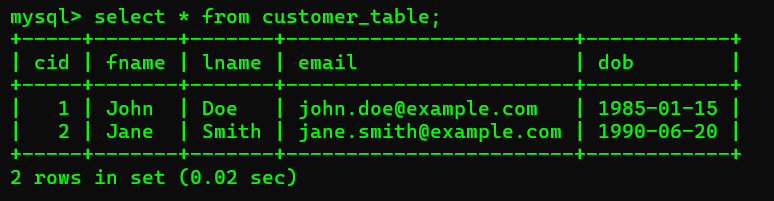


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**customer\_table:**

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CREATE TABLE customer\_table (

cid INT PRIMARY KEY,

fname VARCHAR(50),

lname VARCHAR(50),

email VARCHAR(100),

dob DATE

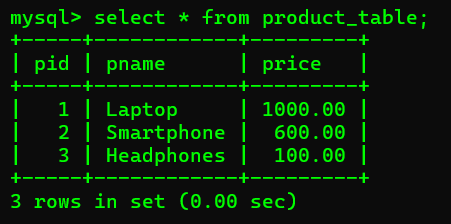
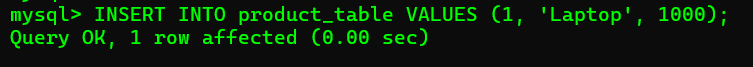
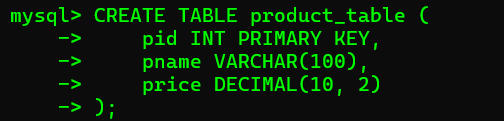
);

INSERT INTO customer\_table VALUES (1, 'John', 'Doe', 'john.doe@example.com', '1985-01-15');

INSERT INTO customer\_table VALUES (2, 'Jane', 'Smith', 'jane.smith@example.com', '1990-06-20');

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**product\_table**

****

CREATE TABLE product\_table (

pid INT PRIMARY KEY,

pname VARCHAR(100),

price DECIMAL(10, 2)

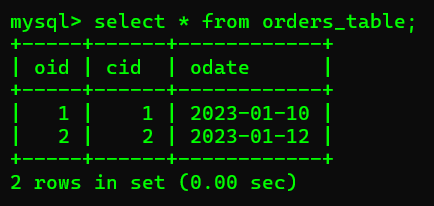
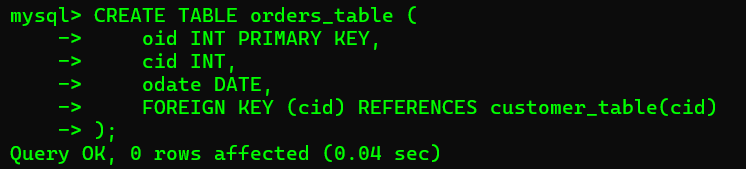
);

INSERT INTO product\_table VALUES (1, 'Laptop', 1000);

INSERT INTO product\_table VALUES (2, 'Smartphone', 600);

INSERT INTO product\_table VALUES (3, 'Headphones', 100);  
**--------------------------------------------------------------------------------------------------------------**

**orders\_table**

****

CREATE TABLE orders\_table (

oid INT PRIMARY KEY,

cid INT,

odate DATE,

FOREIGN KEY (cid) REFERENCES customer\_table(cid)

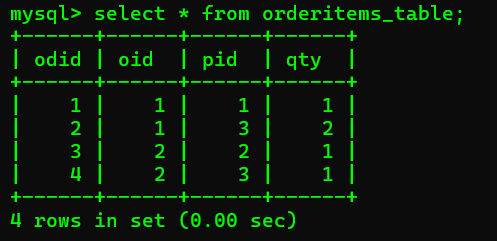
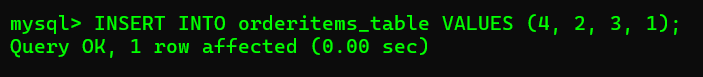
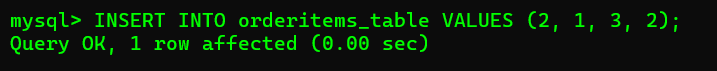
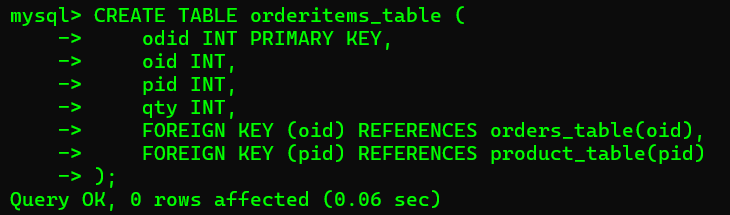
);

INSERT INTO orders\_table VALUES (1, 1, '2023-01-10');

INSERT INTO orders\_table VALUES (2, 2, '2023-01-12');

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**orderitems\_table**

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CREATE TABLE orderitems\_table (

odid INT PRIMARY KEY,

oid INT,

pid INT,

qty INT,

FOREIGN KEY (oid) REFERENCES orders\_table(oid),

FOREIGN KEY (pid) REFERENCES product\_table(pid)

);

INSERT INTO orderitems\_table VALUES (1, 1, 1, 1);

INSERT INTO orderitems\_table VALUES (2, 1, 3, 2);

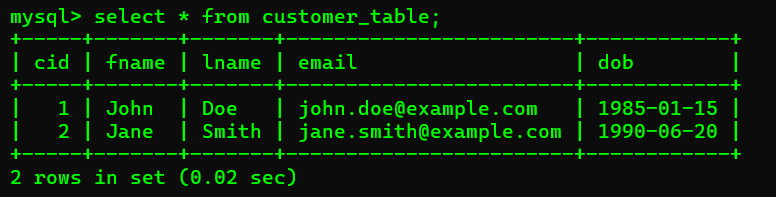
INSERT INTO orderitems\_table VALUES (3, 2, 2, 1);

INSERT INTO orderitems\_table VALUES (4, 2, 3, 1);

**Queries:**

**1. List all customers.**

SELECT \* FROM customer\_table;



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**2. Find all orders placed in January 2023.**

SELECT \* FROM orders\_table

WHERE odate BETWEEN '2023-01-01' AND '2023-01-31';

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**3. Get the details of each order, including the customer name and email.**

SELECT o.oid, o.odate, c.fname, c.lname, c.email

FROM orders\_table o

INNER JOIN customer\_table c ON o.cid = c.cid;

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**4. List the products purchased in a specific order (e.g., OrderID = 1).**

SELECT oi.oid, p.pname, oi.qty

FROM orderitems\_table oi

INNER JOIN product\_table p ON oi.pid = p.pid

WHERE oi.oid = 1;

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**5. Calculate the total amount spent by each customer.**

SELECT c.cid, c.fname, c.lname, SUM(p.price \* oi.qty) AS total\_spent

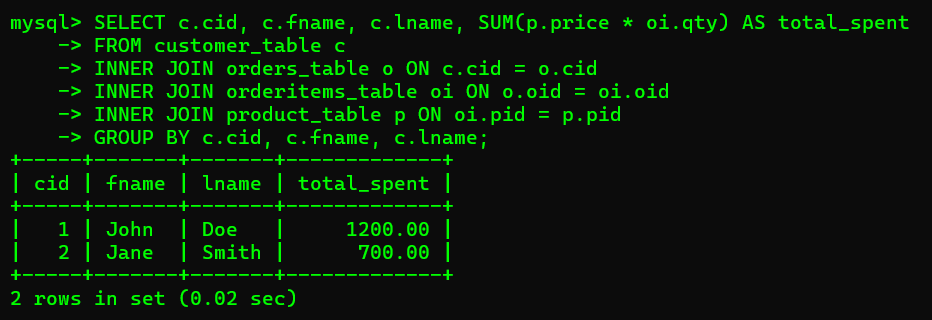
FROM customer\_table c

INNER JOIN orders\_table o ON c.cid = o.cid

INNER JOIN orderitems\_table oi ON o.oid = oi.oid

INNER JOIN product\_table p ON oi.pid = p.pid

GROUP BY c.cid, c.fname, c.lname;



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**6. Find the most popular product (the one that has been ordered the most).**

SELECT p.pname, SUM(oi.qty) AS total\_ordered

FROM orderitems\_table oi

INNER JOIN product\_table p ON oi.pid = p.pid

GROUP BY p.pname

ORDER BY total\_ordered DESC

LIMIT 1;

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**7. Get the total number of orders and the total sales amount for each month in 2023.**

SELECT

EXTRACT(YEAR FROM o.odate) AS year,

EXTRACT(MONTH FROM o.odate) AS month,

COUNT(o.oid) AS total\_orders,

SUM(p.price \* oi.qty) AS total\_sales

FROM orders\_table o

INNER JOIN orderitems\_table oi ON o.oid = oi.oid

INNER JOIN product\_table p ON oi.pid = p.pid

WHERE EXTRACT(YEAR FROM o.odate) = 2023

GROUP BY year, month

ORDER BY year, month;

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**8.Find customers who have spent more than $1000.**

SELECT c.cid, c.fname, c.lname, SUM(p.price \* oi.qty) AS total\_spent

FROM customer\_table c

INNER JOIN orders\_table o ON c.cid = o.cid

INNER JOIN orderitems\_table oi ON o.oid = oi.oid

INNER JOIN product\_table p ON oi.pid = p.pid

GROUP BY c.cid, c.fname, c.lname

HAVING SUM(p.price \* oi.qty) > 1000;

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