

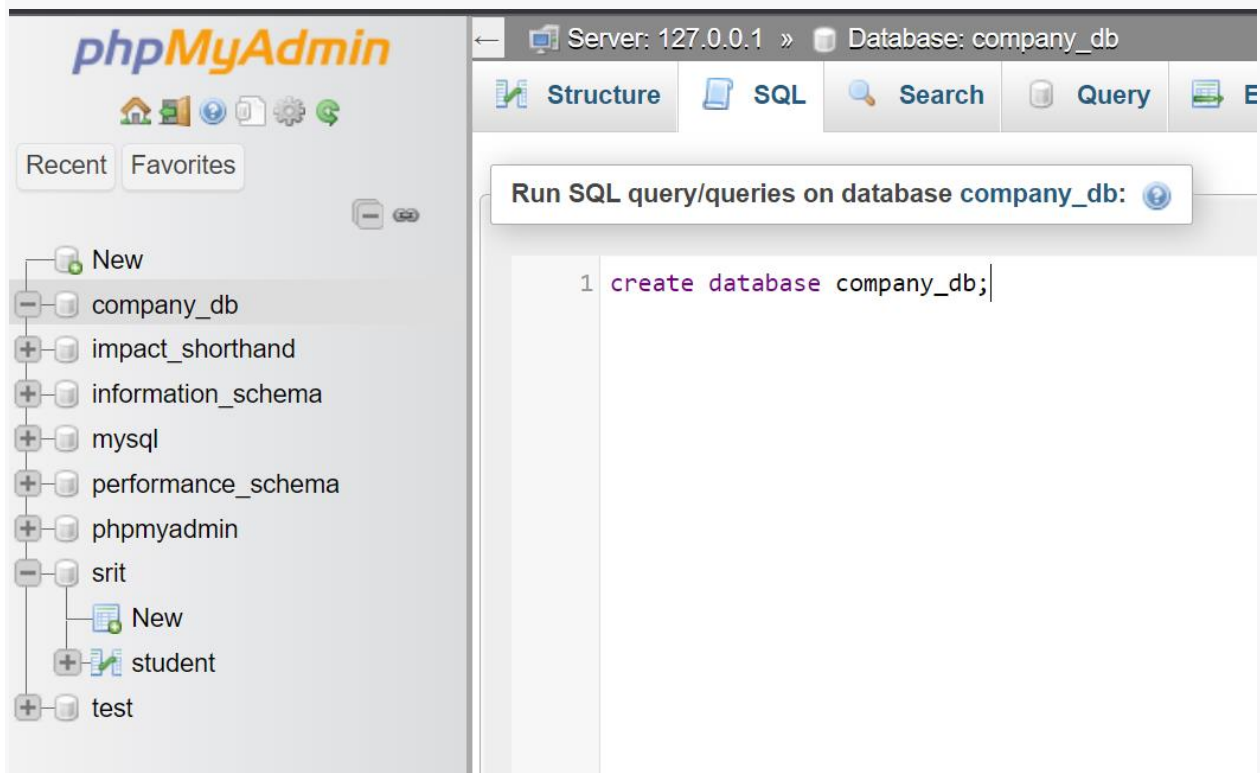
MySQL Database Assignment

Instructions:

- You are expected to complete all the tasks listed below.
- Write SQL queries for each task and provide explanations where necessary.

Task 1: Create a Database Create a new MySQL database named `company_db`.

Ans:- create database company_db



Task 2: Create Tables Inside the `company_db`, create the following two tables:

- `customers` table with the following columns:
 - `customer_id` (Primary Key, Auto Increment)
 - `first_name`
 - `last_name`
 - `email`

- Phone
- Address

Ans:- (a) CREATE TABLE customers (

```

customer_id int(11)not null auto_increment,

first_name varchar(60),

last_name varchar(60),

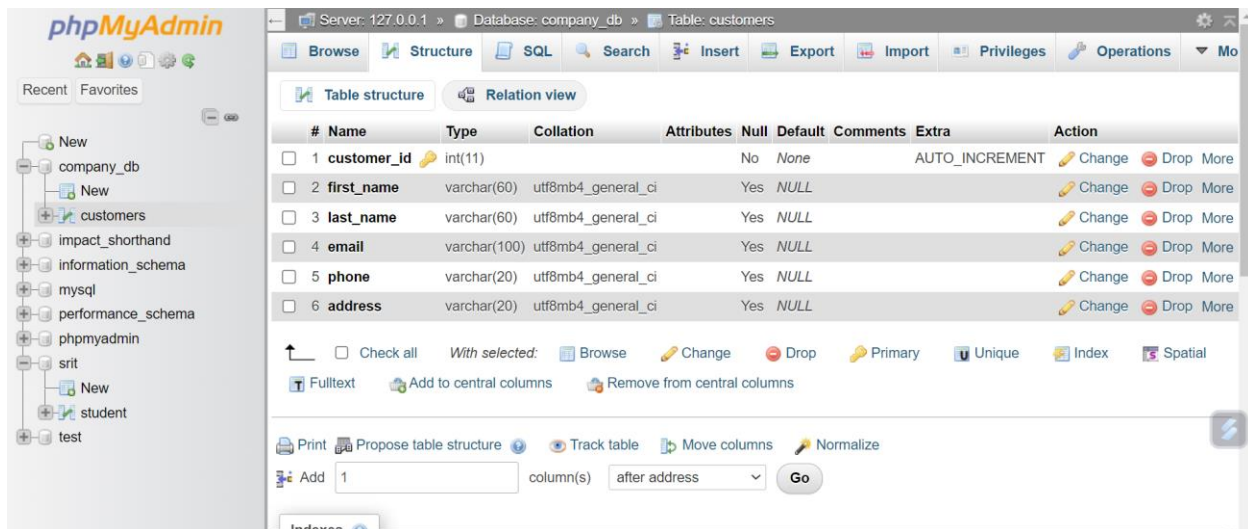
email varchar(100),

phone varchar(20),

address varchar(20),

primary key (customer_id)

)
```



- orders table with the following columns:
 - order_id (Primary Key, Auto Increment)
 - customer_id (Foreign Key referencing customer_id in the customers table)
 - order_date
 - total_amount

(b)

CREATE TABLE orders (

order_id int(11) NOT NULL auto_increment,

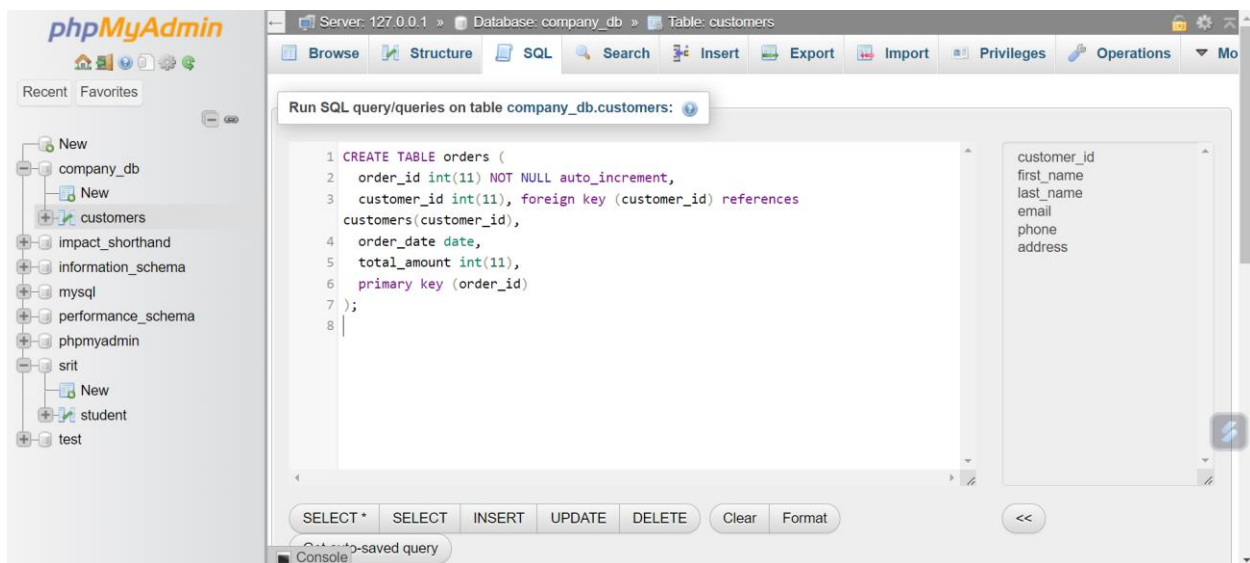
customer_id int(11), foreign key (customer_id) references customers(customer_id),

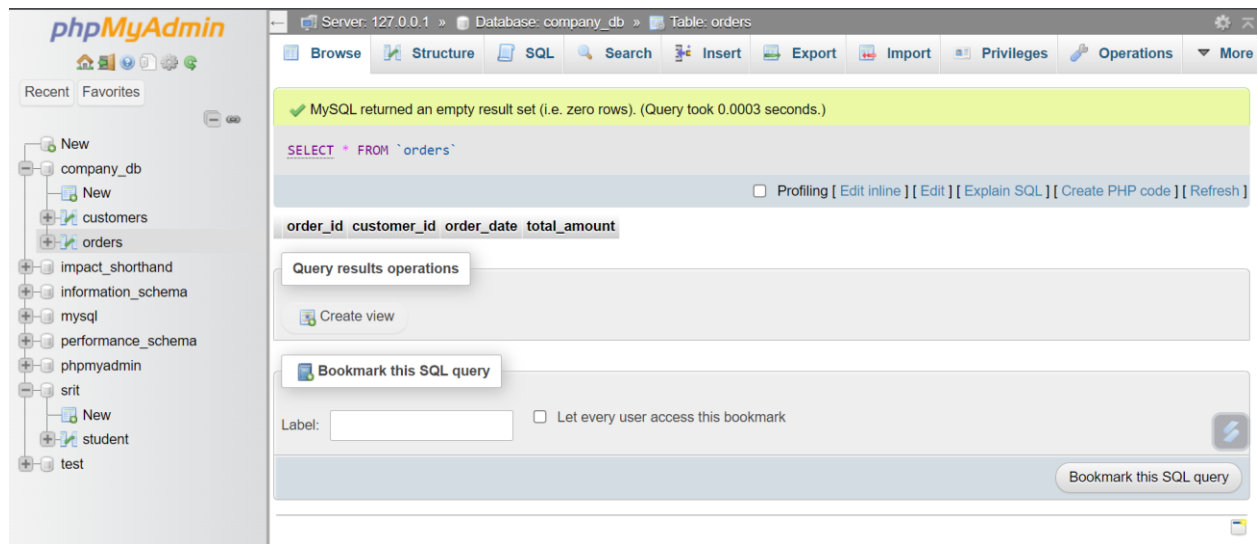
order_date date,

total_amount int(11),

primary key (order_id)

);





Task 3: Insert Data Insert at least 5 records into the `customers` table and 10 records into the `orders` table. Ensure that some orders are associated with customers.

Ans:-

Inserting data into customers table:-

INSERT INTO customers (first_name, last_name, email, phone, address)

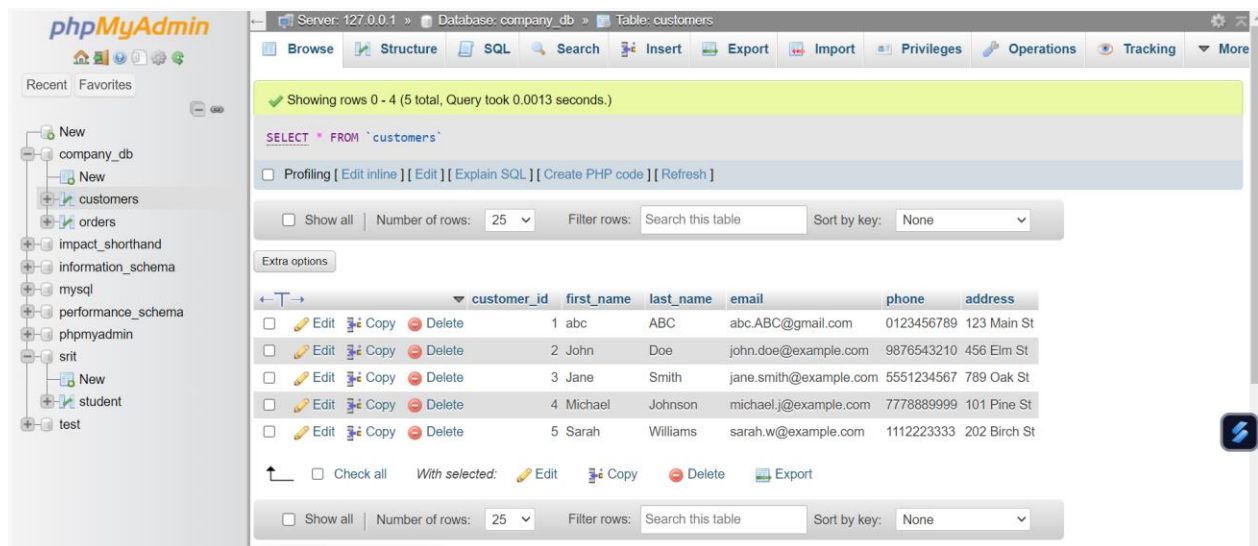
VALUES ("abc", "ABC", "abc.ABC@gmail.com", "0123456789", "123 Main St"),

("John", "Doe", "john.doe@example.com", "9876543210", "456 Elm St"),

("Jane", "Smith", "jane.smith@example.com", "5551234567", "789 Oak St"),

("Michael", "Johnson", "michael.j@example.com", "7778889999", "101 Pine St"),

("Sarah", "Williams", "sarah.w@example.com", "1112223333", "202 Birch St"),



Ans:- (b) Inserting into orders table.

insert into orders

(customer_id, order_date, total_amount)

values

(1, "2023-03-28", 4500),

(1, "2023-03-29", 500),

(2, "2023-02-01", 3500),

(2, "2023-02-02", 1500),

(3, "2023-03-03", 2500),

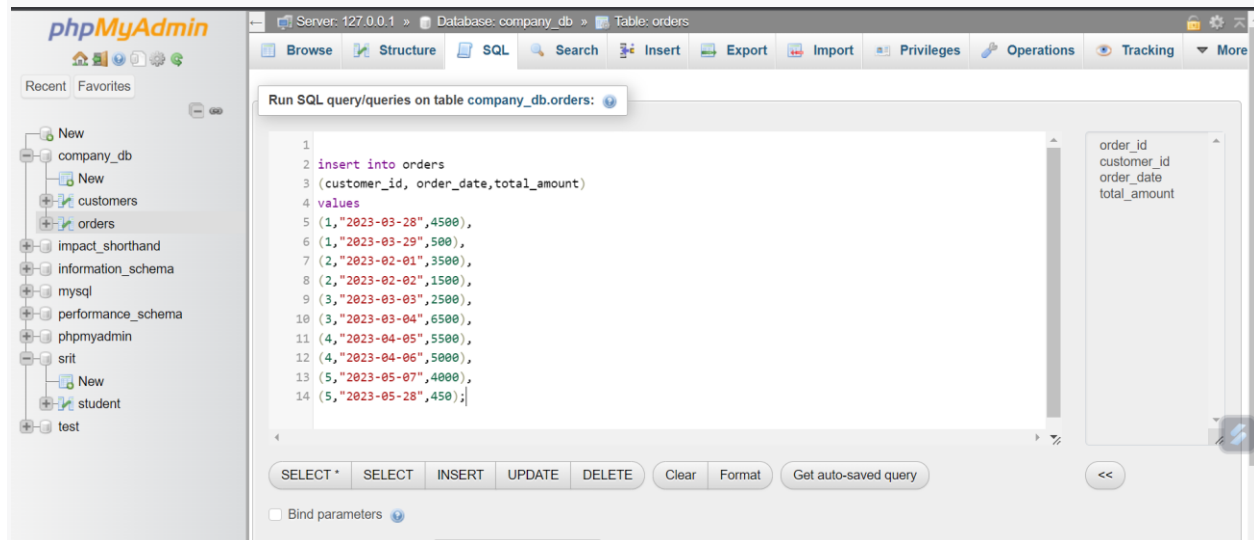
(3, "2023-03-04", 6500),

(4, "2023-04-05", 5500),

(4, "2023-04-06", 5000),

(5,"2023-05-07",4000),

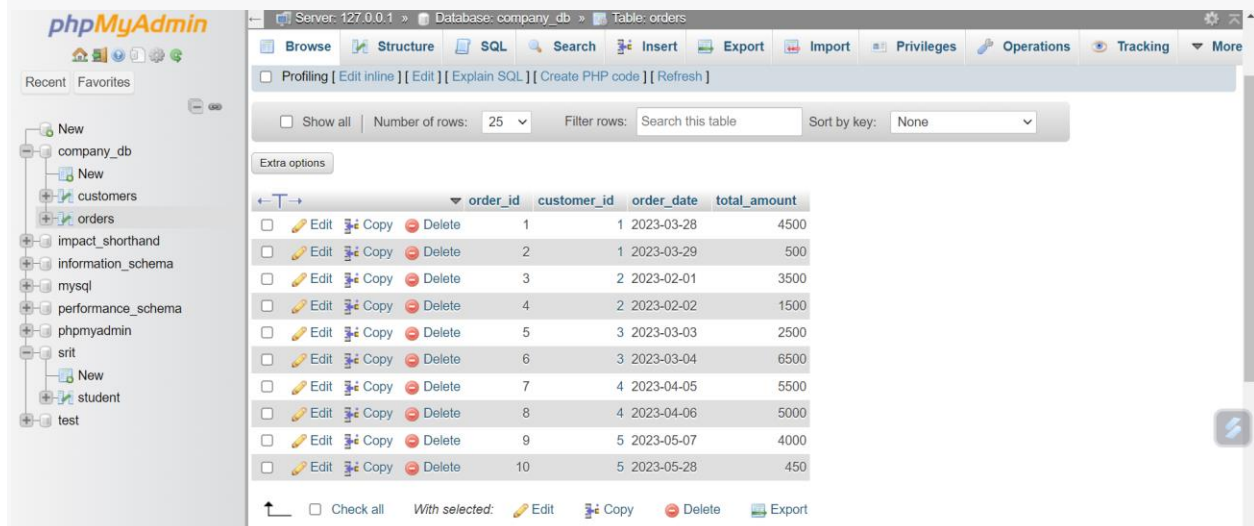
(5,"2023-05-28",450);



The screenshot shows the phpMyAdmin interface with the SQL tab selected. The query editor contains an INSERT statement for the 'orders' table in the 'company_db' database. The query is as follows:

```
1 insert into orders
2 (customer_id, order_date,total_amount)
3 values
4 (1,"2023-03-28",4500),
5 (1,"2023-03-29",500),
6 (2,"2023-02-01",3500),
7 (2,"2023-02-02",1500),
8 (3,"2023-03-03",2500),
9 (3,"2023-03-04",6500),
10 (4,"2023-04-05",5500),
11 (4,"2023-04-06",5000),
12 (5,"2023-05-07",4000),
13 (5,"2023-05-28",450);
```

The interface also shows a sidebar with a database structure tree and a table structure preview for 'orders' with columns: order_id, customer_id, order_date, and total_amount.



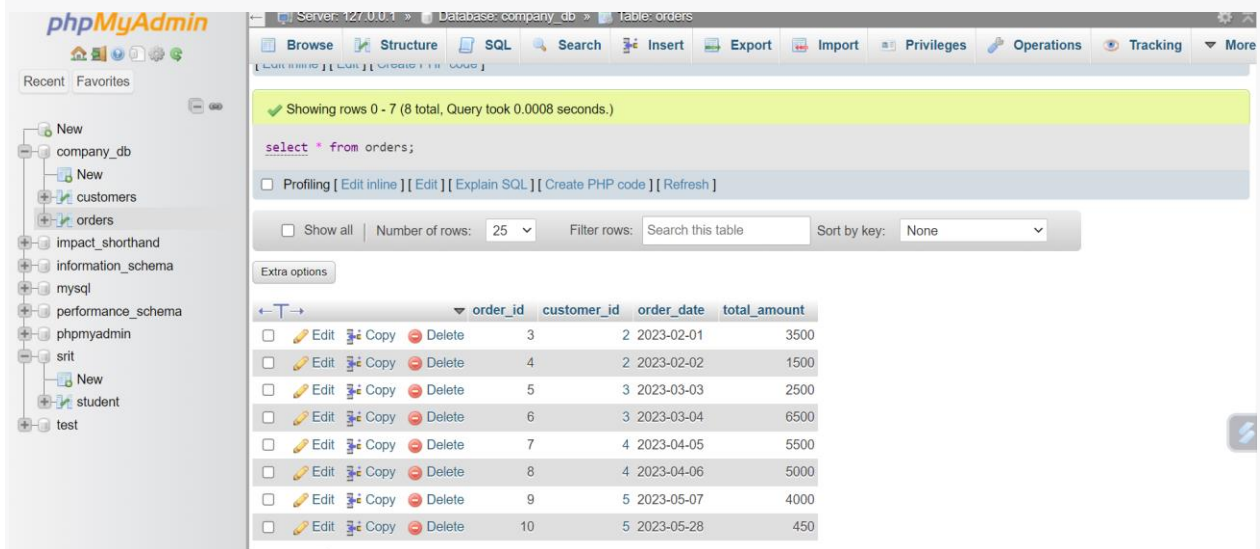
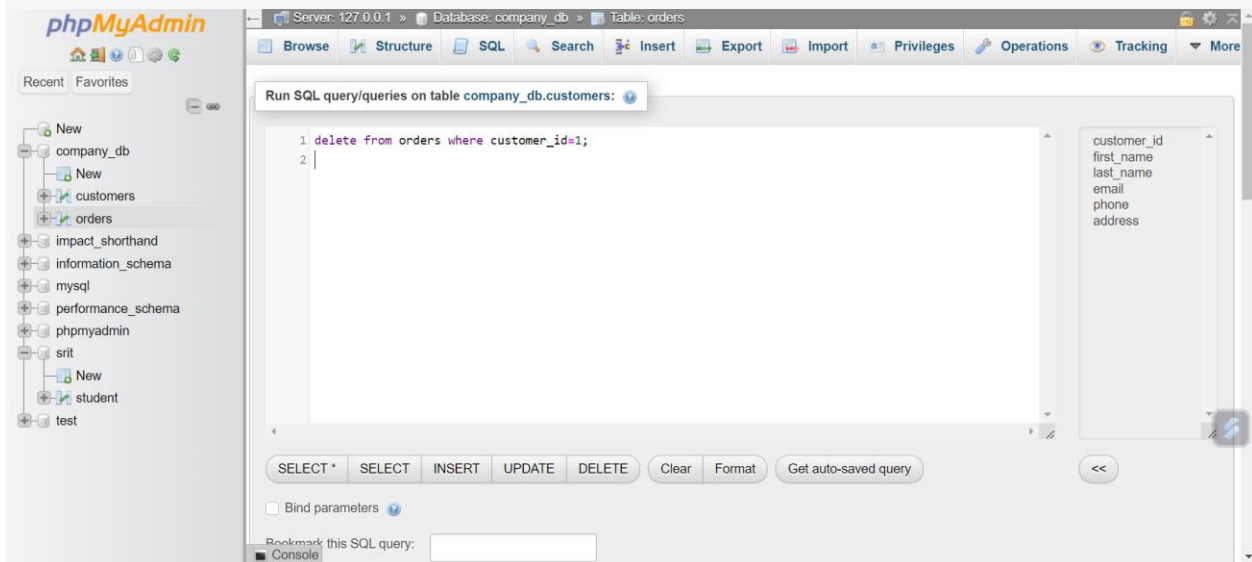
The screenshot shows the phpMyAdmin interface with the Table tab selected for the 'orders' table. The table contains 10 rows of data. The interface includes a toolbar with options like 'Show all', 'Number of rows', 'Filter rows', and 'Sort by key'. Below the table, there are 'Extra options' and a 'Check all' checkbox.

	order_id	customer_id	order_date	total_amount
<input type="checkbox"/>	1	1	2023-03-28	4500
<input type="checkbox"/>	2	1	2023-03-29	500
<input type="checkbox"/>	3	2	2023-02-01	3500
<input type="checkbox"/>	4	2	2023-02-02	1500
<input type="checkbox"/>	5	3	2023-03-03	2500
<input type="checkbox"/>	6	3	2023-03-04	6500
<input type="checkbox"/>	7	4	2023-04-05	5500
<input type="checkbox"/>	8	4	2023-04-06	5000
<input type="checkbox"/>	9	5	2023-05-07	4000
<input type="checkbox"/>	10	5	2023-05-28	450

Task 4: Delete Single Data Write a SQL query to delete customers and orders using where .

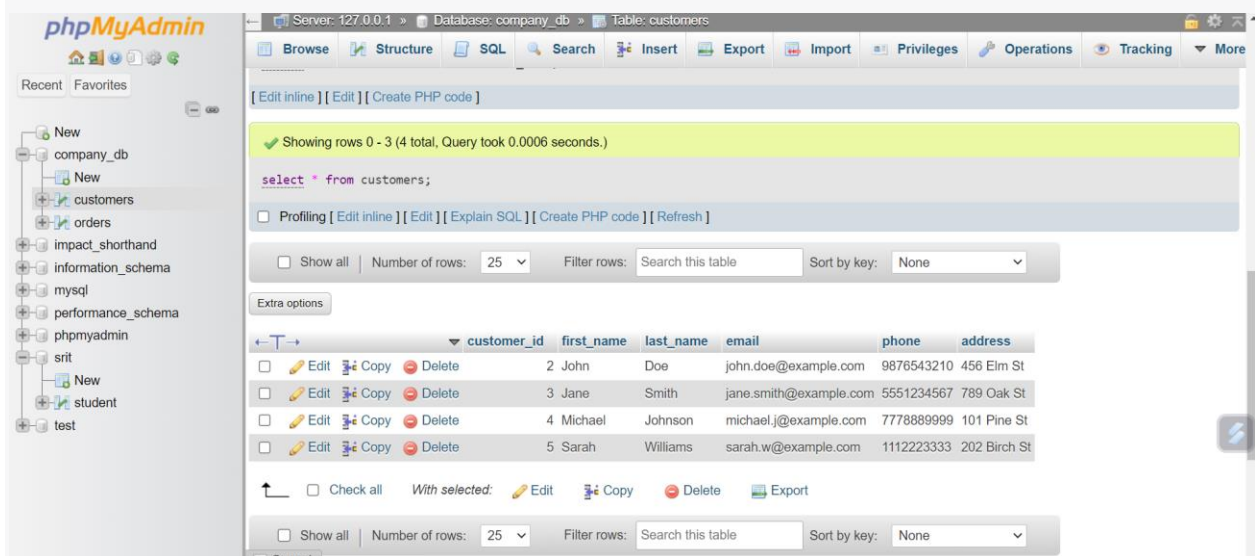
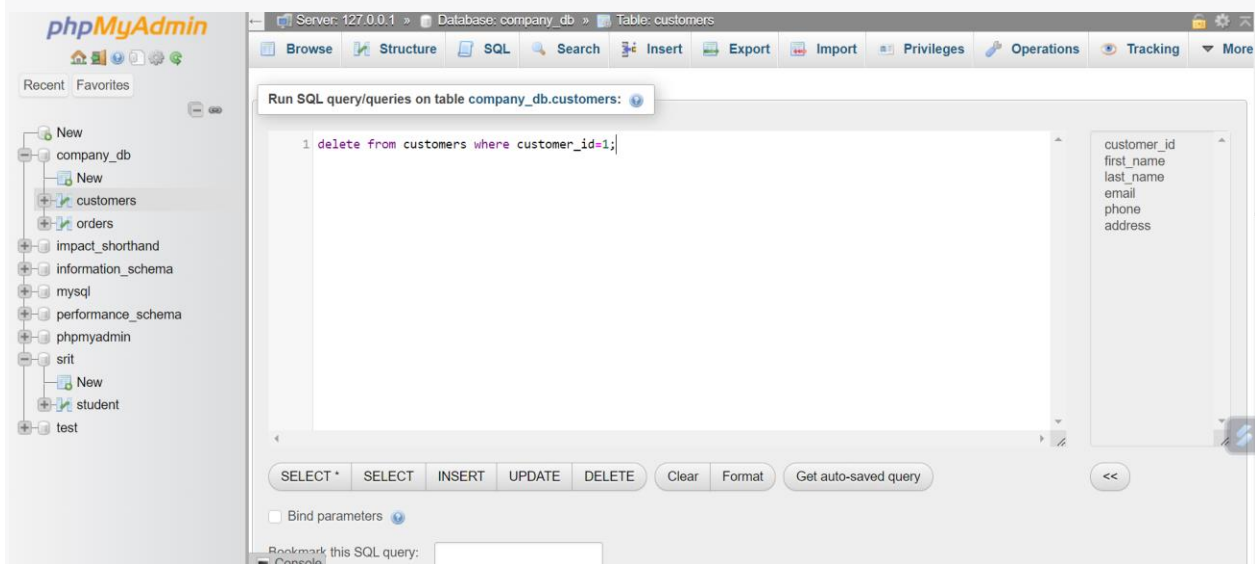
Ans:- deleting all rows from orders table where customer_id is 1.

delete from orders where customer_id=1;



Now deleting from customers table where customer_id is 1.

delete from customers where customer_id=1;

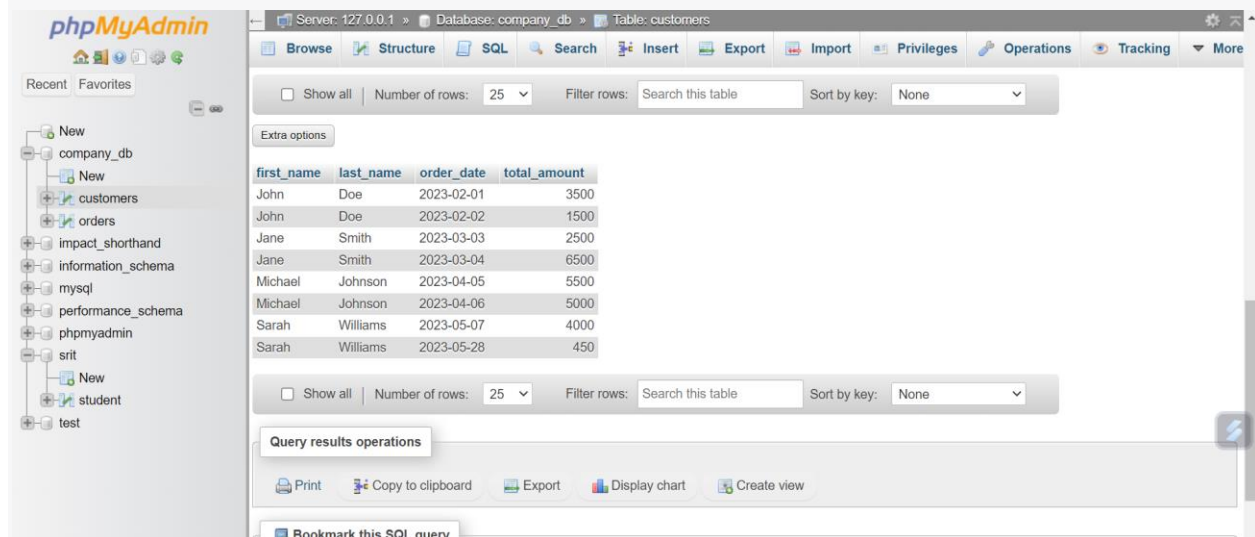
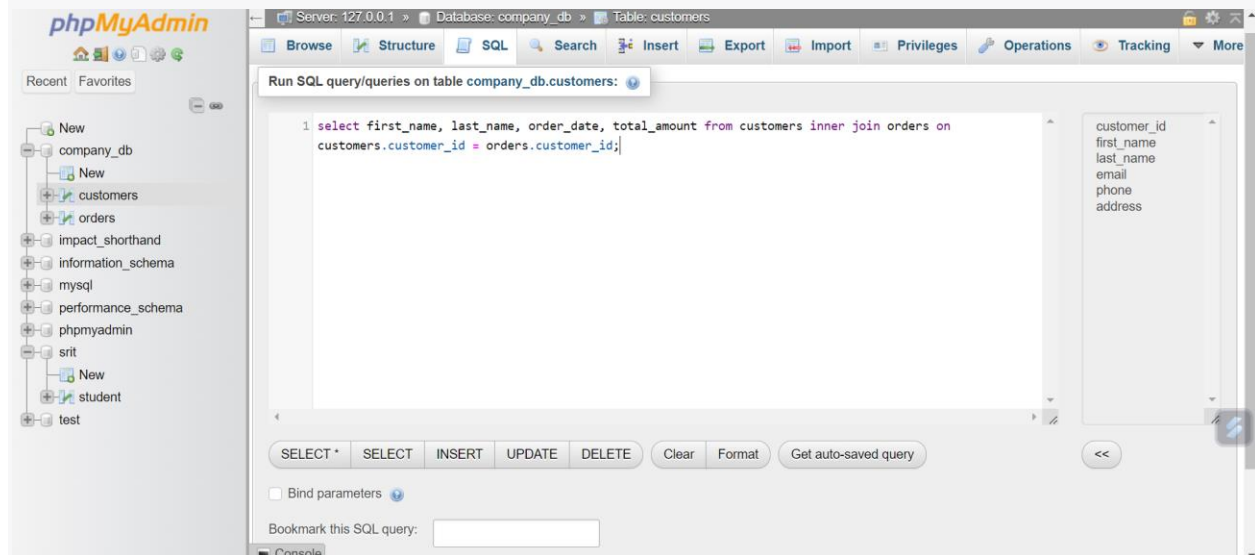


Done.

Task 5: Inner Join Write an SQL query to retrieve a list of customers and their order details (first name, last name, order date, and total amount) using an INNER JOIN between the `customers` and `orders` tables.

Ans:-

select first_name, last_name, order_date, total_amount from customers inner join orders on customers.customer_id = orders.customer_id;



Where my order table is :-

Server: 127.0.0.1 » Database: company_db » Table: orders

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking More

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	customer_id	first_name	last_name	email	phone	address
<input type="checkbox"/> Edit Copy Delete	2	John	Doe	john.doe@example.com	9876543210	456 Elm St
<input type="checkbox"/> Edit Copy Delete	3	Jane	Smith	jane.smith@example.com	5551234567	789 Oak St
<input type="checkbox"/> Edit Copy Delete	4	Michael	Johnson	michael.j@example.com	7778889999	101 Pine St
<input type="checkbox"/> Edit Copy Delete	5	Sarah	Williams	sarah.w@example.com	1112223333	202 Birch St

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

And my customers table is:-

Server: 127.0.0.1 » Database: company_db » Table: customers

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking More

Extra options

	order_id	customer_id	order_date	total_amount
<input type="checkbox"/> Edit Copy Delete	3	2	2023-02-01	3500
<input type="checkbox"/> Edit Copy Delete	4	2	2023-02-02	1500
<input type="checkbox"/> Edit Copy Delete	5	3	2023-03-03	2500
<input type="checkbox"/> Edit Copy Delete	6	3	2023-03-04	6500
<input type="checkbox"/> Edit Copy Delete	7	4	2023-04-05	5500
<input type="checkbox"/> Edit Copy Delete	8	4	2023-04-06	5000
<input type="checkbox"/> Edit Copy Delete	9	5	2023-05-07	4000
<input type="checkbox"/> Edit Copy Delete	10	5	2023-05-28	450

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Console mark this SQL query

Done.

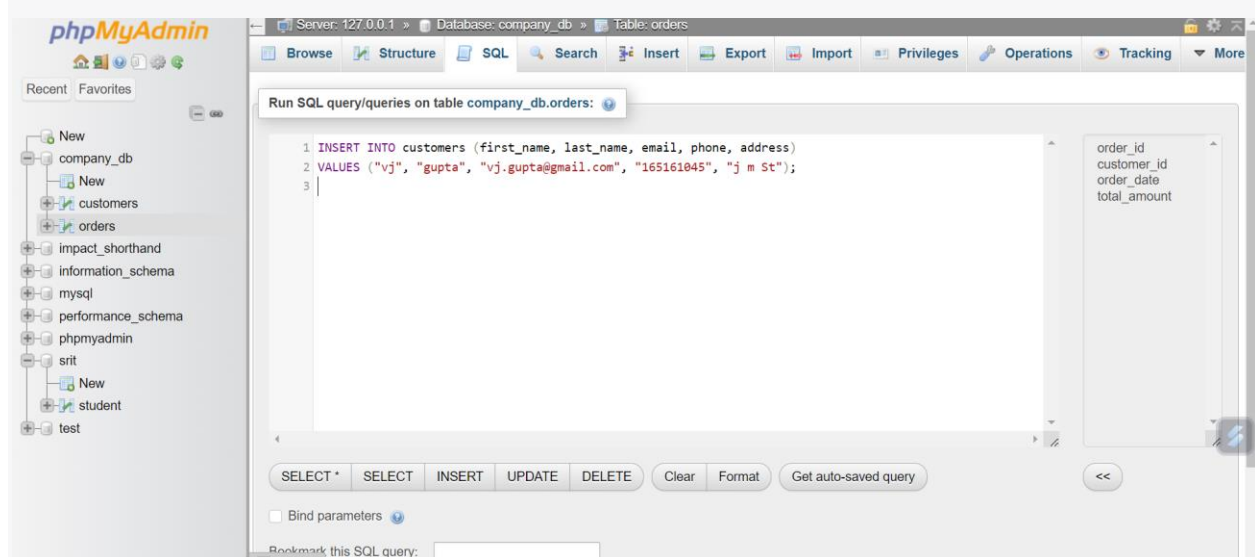
Task 6: Left Join Write an SQL query to retrieve a list of all customers and their order details (first name, last name, order date, and total amount) using a LEFT JOIN between the `customers` and `orders` tables. Include customers who have not placed any orders.

Ans:-

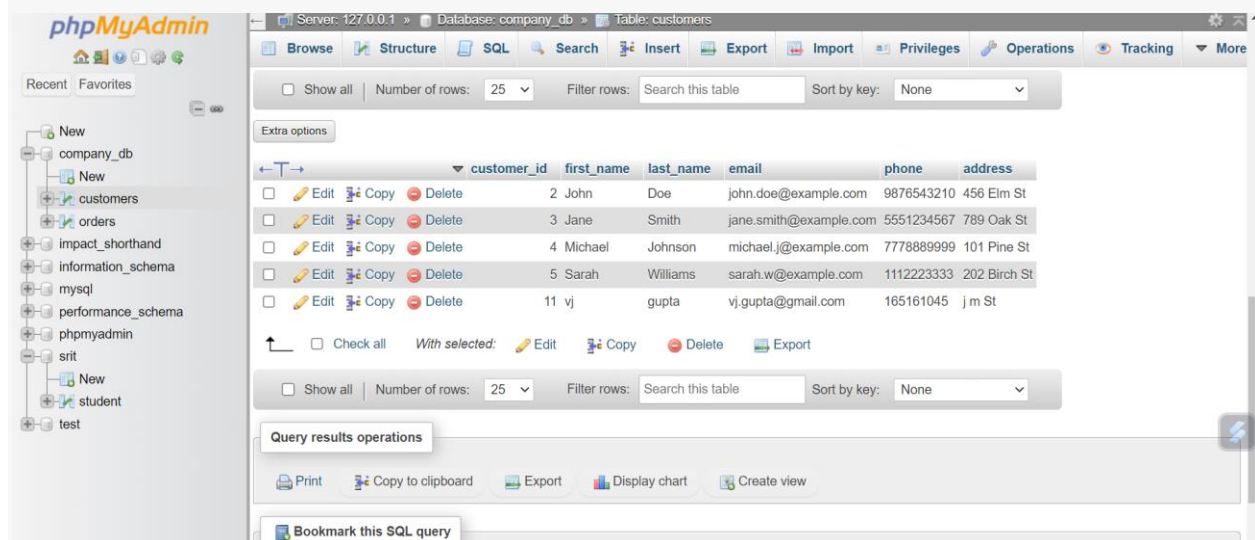
So first of all I will insert a customer who will not order anything.

INSERT INTO customers (first_name, last_name, email, phone, address)

VALUES ("vj", "gupta", "vj.gupta@gmail.com", "165161045", "j m St");



select * from customers;



New person is added with customer_id 11 named vj. Now I will not add order details for the same guy named vj because we want a condition where I want a person (vj) who has not ordered anything yet so there will be no details to be found in orders table.

Here orders table will look like as below (No update):-

phpMyAdmin

Server: 127.0.0.1 » Database: company_db » Table: orders

Recent Favorites

Extra options

	order_id	customer_id	order_date	total_amount
<input type="checkbox"/> Edit Copy Delete	3	2	2023-02-01	3500
<input type="checkbox"/> Edit Copy Delete	4	2	2023-02-02	1500
<input type="checkbox"/> Edit Copy Delete	5	3	2023-03-03	2500
<input type="checkbox"/> Edit Copy Delete	6	3	2023-03-04	6500
<input type="checkbox"/> Edit Copy Delete	7	4	2023-04-05	5500
<input type="checkbox"/> Edit Copy Delete	8	4	2023-04-06	5000
<input type="checkbox"/> Edit Copy Delete	9	5	2023-05-07	4000
<input type="checkbox"/> Edit Copy Delete	10	5	2023-05-28	450

☐ Check all
 With selected: Edit Copy Delete Export

☐ Show all
 Number of rows: 25
 Filter rows: Search this table
 Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Console

Now left joining

select first_name, last_name, order_date, total_amount from customers left join orders on customers.customer_id = orders.customer_id;

phpMyAdmin

Server: 127.0.0.1 » Database: company_db » Table: orders

Recent Favorites

Run SQL query/queries on table company_db.orders:

```
1 select first_name, last_name, order_date, total_amount from customers left join orders on customers.customer_id = orders.customer_id;
```

order_id
 customer_id
 order_date
 total_amount

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

☐ Bind parameters

Bookmark this SQL query:

Console

The screenshot shows the phpMyAdmin interface with the 'customers' table selected. The table contains the following data:

first_name	last_name	order_date	total_amount
John	Doe	2023-02-01	3500
John	Doe	2023-02-02	1500
Jane	Smith	2023-03-03	2500
Jane	Smith	2023-03-04	6500
Michael	Johnson	2023-04-05	5500
Michael	Johnson	2023-04-06	5000
Sarah	Williams	2023-05-07	4000
Sarah	Williams	2023-05-28	450
vj	gupta	NULL	NULL

Task 7: Right Join Write an SQL query to retrieve a list of all orders and their customer details (order date, total amount, first name, last name, and email) using a RIGHT JOIN between the `customers` and `orders` tables. Include orders without associated customers.

Ans:-

select order_date, total_amount, first_name, last_name, email from customers right join orders on customers.customer_id = orders.customer_id;

The screenshot shows the phpMyAdmin interface with the SQL query editor open. The query entered is:

```
1 select order_date, total_amount, first_name, last_name, email from customers right join orders on
customers.customer_id = orders.customer_id;
```

The query is ready to be executed. The interface also shows the table structure and various options for running the query.

The screenshot shows the phpMyAdmin interface with the 'customers' table selected. A SQL query is entered in the query box:

```
select order_date, total_amount, first_name, last_name, email from customers right join orders on customers.customer_id = orders.customer_id;
```

Below the query box, there are options for 'Show all', 'Number of rows' (set to 25), 'Filter rows' (Search this table), and 'Sort by key' (None). The 'Extra options' tab is selected, showing a table of results:

order_date	total_amount	first_name	last_name	email
2023-02-01	3500	John	Doe	john.doe@example.com
2023-02-02	1500	John	Doe	john.doe@example.com
2023-03-03	2500	Jane	Smith	jane.smith@example.com
2023-03-04	6500	Jane	Smith	jane.smith@example.com
2023-04-05	5500	Michael	Johnson	michael.j@example.com
2023-04-06	5000	Michael	Johnson	michael.j@example.com
2023-05-07	4000	Sarah	Williams	sarah.w@example.com
2023-05-28	450	Sarah	Williams	sarah.w@example.com

At the bottom, there is a 'Query results operations' tab.

Task 9: Concatenate Full Customer Names Write an SQL query to retrieve a list of customers with their full names (concatenating `first_name` and `last_name` columns) and display them in a single column named `full_name`. Make sure to include all customers from the `customers` table.

Ans:-

select concat (first_name," ", last_name) as full_name from customers;

The screenshot shows the phpMyAdmin interface with the 'customers' table selected. The 'SQL' tab is active, and the query editor contains the following query:

```
1 select concat (first_name," ", last_name) as full_name from customers;
```

Below the query editor, there are buttons for 'SELECT *', 'SELECT', 'INSERT', 'UPDATE', 'DELETE', 'Clear', 'Format', and 'Get auto-saved query'. There is also a 'Bind parameters' checkbox and a 'Bookmark this SQL query' field.

The screenshot shows the phpMyAdmin web interface. On the left is a sidebar with a database tree structure. The main panel displays the 'customers' table from the 'company_db' database. A SQL query has been executed: `select concat (first_name, " ", last_name) as full_name from customers;`. The result shows 5 rows of data. Below the query, there are controls for 'Show all', 'Number of rows' (set to 25), 'Filter rows' (a search box), and 'Sort by key' (set to None). The 'Query results operations' section at the bottom includes links for 'Console', 'Copy to clipboard', 'Export', 'Display chart', and 'Create view'.

Server: 127.0.0.1 » Database: company_db » Table: customers

Showing rows 0 - 4 (5 total, Query took 0.0007 seconds.)

```
select concat (first_name, " ", last_name) as full_name from customers;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

full_name
John Doe
Jane Smith
Michael Johnson
Sarah Williams
vj gupta

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Query results operations

Console | Copy to clipboard | Export | Display chart | Create view

Submission:

- Save your SQL file with a meaningful filename (e.g., `mysql_assignment`).
- Submit the assignment today .