

### **Critical Thinking Assignment 3: Using Joins**

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## Critical Thinking Assignment 2: Using Joins

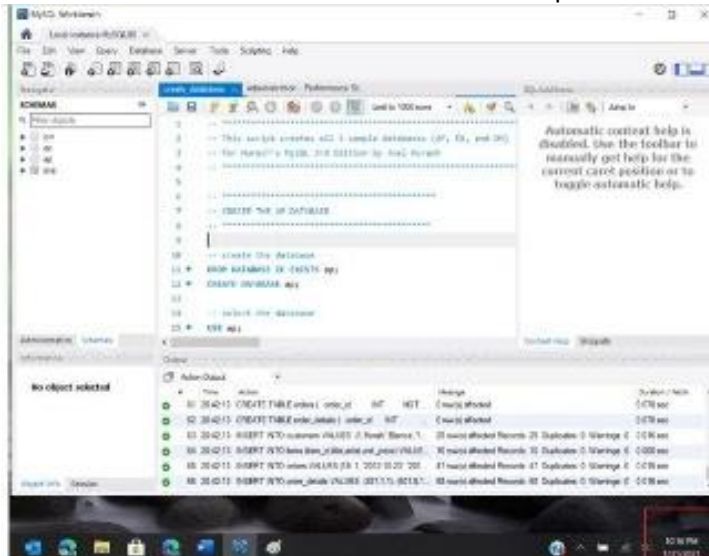
This documentation is part of the Critical Thinking 3 Assignment from ITS410: Database Management at Colorado State University Global. The documentation provides screenshots showcasing using joins using MySQL and the My Guitar Shop database.

### The Assignment Direction:

Using the My Guitar Shop database you installed in Module 1, develop the following queries.

1. Write a SELECT statement that joins the Categories table to the Products table and returns these columns: category\_name, product\_name, list\_price.  
Sort the result set by the category\_name column and then by the product\_name column in ascending sequence. Execute the query and take a screenshot of the query and the results.
2. Write a SELECT statement that joins the Customers table to the Addresses table and returns these columns: first\_name, last\_name, line1, city, state, zip\_code.  
Return one row for each address for the customer with an email address of [allan.sherwood@yahoo.com](mailto:allan.sherwood@yahoo.com). Execute the query and take a screenshot of the query and the results.
3. Write a SELECT statement that joins the Customers table to the Addresses table and returns these columns: first\_name, last\_name, line1, city, state, zip\_code.  
Return one row for each customer, but only return addresses that are the shipping address for a customer. Execute the query and take a screenshot of the query and the results.
4. Write a SELECT statement that joins the Customers, Orders, Order\_Items, and Products tables. This statement should return these columns: last\_name, first\_name, order\_date, product\_name, item\_price, discount\_amount, and quantity.  
Use aliases for the tables.  
Sort the final result set by the last\_name, order\_date, and product\_name columns. Execute the query and take a screenshot of the query and the results.

All the screenshots should show current date. Example of screenshot.



Submit your labeled results screenshots in a Word file.

## Screenshots

**Step 1:** Note that this step does not specify if the INNER JOIN needs to be an explicit inner join or an implicit inner join; however, it is “considered a best practice to use the explicit inner join syntax” (Murach, 2029, p.126). Therefore, I used an explicit inner join syntax for this step.

**Figure 1**  
*Assignment Steps 1*

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'Schemas' tab with a tree view of the 'my\_guitar\_shop' database, including tables, views, stored procedures, and functions. The main editor window shows a SQL query in the 'SQL File 1\*' tab. The query is as follows:

```

1 SELECT
2   c.category_name,
3   p.product_name,
4   p.list_price
5 FROM
6   categories AS c
7 JOIN -- INNER JOIN
8   -- Best practice to use the explicit inner join syntax
9   products AS p ON c.category_id = p.category_id
10 ORDER BY
11   c.category_name ASC,
12   p.product_name ASC;
13
14
15

```

Below the query editor, the 'Result Grid' is visible, showing the results of the query. The results are as follows:

category_name	product_name	list_price
Basses	Fender Precision	799.99
Basses	Hofner Icon	499.99
Drums	Ludwig 5-piece Drum Set with Cymbals	699.99
Drums	Tama 5-Piece Drum Set with Cymbals	799.99
Guitars	Fender Stratocaster	699.00
Guitars	Gibson Les Paul	1199.00
Guitars	Gibson SG	2517.00
Guitars	Rodriguez Caballero 11	415.00
Guitars	Washburn D10S	299.00
Guitars	Yamaha FG700S	489.99

At the bottom of the interface, the 'Output' tab is active, showing the 'Action Output' for the query. The output indicates that the query was executed successfully at 10:09:13, returning 10 row(s) in 0.000 seconds.

**Note:** The figure illustrates the MySQL Workbench result after performing steps 1.

*Please see the next page.*

## Step 2

**Figure 2**  
*Assignment Steps 2*

The screenshot shows the MySQL Workbench interface. The left sidebar contains the 'SCHEMAS' panel with a search filter and a tree view showing the 'my\_guitar\_shop' database. The main editor displays a SQL query in 'SQL File 1'. The query is a SELECT statement that joins the 'customers' table (aliased as 'c') with the 'addresses' table (aliased as 'a') on the 'customer\_id' field. It filters for records where the email address is 'allan.sherwood@yahoo.com'. The query selects the first name, last name, line1, city, state, and zip code.

```

1  SELECT
2      c.first_name,
3      c.last_name,
4      a.line1,
5      a.city,
6      a.state,
7      a.zip_code
8  FROM
9      customers AS c
10 INNER JOIN
11     addresses AS a ON c.customer_id = a.customer_id
12 WHERE
13     c.email_address = 'allan.sherwood@yahoo.com';

```

Below the query editor, the 'Result Grid' shows the results of the query. It contains two rows of data.

first_name	last_name	line1	city	state	zip_code
Allan	Sherwood	100 East Ridgewood Ave.	Paramus	NJ	07652
Allan	Sherwood	21 Rosewood Rd.	Woodcliff Lake	NJ	07677

The bottom panel shows the 'Output' tab with a message indicating that 2 rows were returned. The status bar at the bottom indicates 'Query Completed' and the system time is 10:26 AM on 5/1/2025.

*Note:* The figure illustrates the MySQL Workbench result after performing steps 2.

*Please see the next page.*

### Step 3

**Figure 3**  
*Assignment Step 3*

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```

1  SELECT
2      c.first_name,
3      c.last_name,
4      a.line1,
5      a.city,
6      a.state,
7      a.zip_code
8  FROM
9      customers AS c
10 INNER JOIN
11     addresses AS a ON c.shipping_address_id = a.address_id
12 ORDER BY
13     c.last_name,
14     c.first_name;

```

The Results window displays the following data:

first_name	last_name	line1	city	state	zip_code
Christine	Brown	19270 NW Cornell Rd.	Beaverton	OR	97006
Heather	Esway	2381 Buena Vista St.	Los Angeles	CA	90023
David	Goldstein	186 Vermont St.	San Francisco	CA	94110
Gary	Hernandez	7361 N. 41st St.	New York	NY	10012
Allan	Sherwood	100 East Ridgewood Ave.	Paramus	NJ	07652
Erin	Valentino	6982 Palm Ave.	Fresno	CA	93711
Frank Lee	Wilson	23 Mountain View St.	Denver	CO	80208
Barry	Zimmer	16285 Wendell St.	Omaha	NE	68135

The Action Output window shows the following message:

```

#    Time    Action
1  10:38:38  SELECT  c.first_name, c.last_name, a.line1, a.city, a.state, ... 8 row(s) returned

```

The Duration / Fetch is 0.000 sec / 0.000 sec.

*Note:* The figure illustrates the MySQL Workbench result after performing steps 3.

*Please see the next page.*

## Step 4

**Figure 4**  
*Assignment Step 4*

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```

1  SELECT
2      c.last_name,
3      c.first_name,
4      o.order_date,
5      p.product_name,
6      oi.item_price,
7      oi.discount_amount,
8      oi.quantity
9  FROM
10     customers AS c
11     INNER JOIN
12         orders AS o ON c.customer_id = o.customer_id
13     INNER JOIN
14         order_items AS oi ON o.order_id = oi.order_id
15     INNER JOIN
16         products AS p ON oi.product_id = p.product_id
17 ORDER BY
18     c.last_name,
19     o.order_date,
20     p.product_name;

```

The Results window displays the following data:

	last_name	first_name	order_date	product_name	item_price	discount_amount	quantity
▶	Brown	Christine	2018-03-30 15:22:31	Gibson Les Paul	1199.00	359.70	2
	Goldstein	David	2018-03-31 05:43:11	Washburn D10S	299.00	0.00	1
	Goldstein	David	2018-04-03 12:22:31	Fender Stratocaster	699.00	209.70	1
	Hernandez	Gary	2018-04-02 11:26:38	Tama 5-Piece Drum Set with Cymbals	799.99	120.00	1
	Sherwood	Allan	2018-03-28 09:40:28	Gibson Les Paul	1199.00	359.70	1
	Sherwood	Allan	2018-03-29 09:44:58	Gibson SG	2517.00	1308.84	1
	Sherwood	Allan	2018-03-29 09:44:58	Rodriguez Caballero 11	415.00	161.85	1
	Valentino	Erin	2018-03-31 18:37:22	Washburn D10S	299.00	0.00	1
	Wilson	Frank Lee	2018-04-01 23:11:12	Fender Precision	799.99	240.00	1
	Wilson	Frank Lee	2018-04-01 23:11:12	Fender Stratocaster	699.00	209.70	1
	Wilson	Frank Lee	2018-04-01 23:11:12	Ludwig 5-piece Drum Set with Cymbals	699.99	210.00	1
	Zimmer	Barry	2018-03-28 11:23:20	Yamaha FG700S	489.99	186.20	1

The bottom status bar indicates: Query Completed, 13:33:17, SELECT c.last\_name, c.first\_name, o.order\_date, p.product\_name, oi..., 12 row(s) returned, 0.016 sec / 0.000 sec.

**Note:** The figure illustrates the MySQL Workbench result after performing steps 4.

## Reference:

Murach, J. (2019). Chapter 4: How to retrieve data from two or more tables. *Murach's MySQL* (3rd ed.). Murach Books. ISBN: 9781943872367