

# Database Management Systems

## Extra Credit 1: MySQL Joins

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Due: 03/25/2025

Name:

**Customers Table**

CustomerID	Name	Email	Phone	Address	JoinDate
1	Alice	alice@email.com	123-456-7890	123 NY St, NY	2022-05-01
2	Bob	bob@email.com	234-567-8901	456 LA St, LA	2021-08-15
3	Charlie	charlie@email.com	345-678-9012	789 CH St, CH	2023-01-10
4	David	david@email.com	456-789-0123	101 HOU St, HOU	2020-12-20
5	Eve	eve@email.com	567-890-1234	202 BOST St, BOS	2022-11-30

**Pizzas Table**

PizzaID	PizzaName	Category	BasePrice
1	Margherita	Vegetarian	8.99
2	Pepperoni	Meat	9.99
3	BBQ Chicken	Meat	10.99
4	Veggie Deluxe	Vegetarian	11.99
5	Hawaiian	Meat	9.49
6	Four Cheese	Vegetarian	10.49

**PizzaSizes Table**

SizeID	Size	PriceMultiplier
1	Small	1.00
2	Medium	1.50
3	Large	2.00

**Orders Table**

OrderID	CustomerID	PizzaID	SizeID	OrderDate	Quantity	OrderStatus	PaymentMethod	DeliveryType	TotalPrice
1	1	2	3	2024-02-01	1	Delivered	Credit Card	Delivery	19.98
2	1	3	2	2024-02-05	2	Shipped	PayPal	Pickup	32.97
3	2	1	1	2024-02-07	1	Processing	Debit Card	Delivery	8.99
4	3	4	3	2024-02-10	3	Delivered	Credit Card	Delivery	71.97
5	4	2	2	2024-02-12	1	Cancelled	PayPal	Pickup	14.99
6	5	5	1	2024-02-15	2	Delivered	Cash	Delivery	18.98
7	2	6	3	2024-02-18	1	Shipped	Credit Card	Pickup	20.98
8	3	3	2	2024-02-20	2	Processing	Debit Card	Delivery	32.97
9	4	1	2	2024-02-22	1	Delivered	Credit Card	Pickup	13.49
10	5	4	3	2024-02-25	2	Processing	PayPal	Delivery	47.98

Figure 1: Pizza Store Database

**For each of the questions below, write MySQL query.**

**Q 1:** Find all pending (Processing) orders.

**MySQL query:**

**Q 2:** Calculate total sales revenue from all delivered orders.

**MySQL query:**

**Q 3:** Get the total number of pizzas sold.

**MySQL query:**

**Q 4:** Find the average revenue per order.

**MySQL query:**

**Q 5:** Get all customers and their orders (even those who haven't placed any orders).

**MySQL query:**

**Q 6:** Get all orders with order ID, customer names, pizza names, quantity, and total price.

**MySQL query:**

**Q 7:** Find pizzas that have never been ordered.

**MySQL query:**

For each of the MySQL queries below, give the output.

Query 1

```
SELECT SUM(TotalPrice) AS TotalRevenue  
FROM Orders;
```

Output:

Query 2

```
SELECT Pizzas.PizzaName, COUNT(Orders.OrderID) AS NumberOfOrders  
FROM Orders  
INNER JOIN Pizzas ON Orders.PizzaID = Pizzas.PizzaID  
GROUP BY Pizzas.PizzaName;
```

Output:

### Query 3

```
SELECT PizzaSizes.Size, COUNT(Orders.OrderID) AS OrderCount
FROM Orders
INNER JOIN PizzaSizes ON Orders.SizeID = PizzaSizes.SizeID
GROUP BY PizzaSizes.Size
ORDER BY OrderCount DESC
LIMIT 1;
```

**Output:**

### Query 4

```
SELECT Pizzas.Category, SUM(Orders.TotalPrice) AS TotalRevenue
FROM Orders
INNER JOIN Pizzas ON Orders.PizzaID = Pizzas.PizzaID
GROUP BY Pizzas.Category;
```

**Output:**

### Query 5

```
SELECT Customers.Name, SUM(Orders.TotalPrice) AS TotalSpent
FROM Orders
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID
GROUP BY Customers.Name
ORDER BY TotalSpent DESC
LIMIT 3;
```

**Output:**

#### Query 6

```
SELECT Orders.OrderID, Customers.Name, Orders.OrderDate  
FROM Orders  
RIGHT JOIN Customers ON Orders.CustomerID = Customers.CustomerID;
```

**Output:**

#### Query 7

```
SELECT Pizzas.PizzaName, Orders.OrderID, Orders.Quantity  
FROM Pizzas  
LEFT JOIN Orders ON Pizzas.PizzaID = Orders.PizzaID;
```

**Output:**