# SQL PROJECTS ON PIZZA SALES

***PRESENTED BY : -GAURAV KUMAR***

# HELLO !

***“My name is Gaurav Kumar , and in this project ,***
***I have applied SQL queries***
***related to pizza sales ”***

# In Our Project, We:

- **Imported Pizza Sales Data**:
  - From CSV files into MySQL Workbench

- **Generated Insights**:
  - Analysed sales data to derive meaningful insights

- **Identified Areas for Improvement**:
  - Determined key areas needing improvement based on the sales analysis

# In My Pizza Sales SQL Project, I Utilized Various Advanced SQL Features, Including:

- **Aggregated Functions**:
    - COUNT
    - SUM
    - AVG

- **SQL Clauses**:
    - LIMIT
    - ORDER BY

- **Joins**:
    - Performing joins between two tables
    - Performing joins between multiple tables

- **Complex Sub-queries**

- **Window Functions**:
    - RANK()

# “Pizzahut” Database Schema

The Pizzahut database contains the following four tables:

**order_details**

**orders**

**pizza_types**

**pizza**

# Comprehensive SQL Query Tasks for Pizza Sales Analysis

1 - Retrieve the total no of order placed.

2- Calculate the total revenue generated from pizza sales.

3- Identify highest price pizzas

4- Identify the most common pizza size ordered

5- List the top 5 most ordered pizza types, along with their quantities

6- Join the necessary tables to find the total quantity of each pizza category ordered

7-determine the distribution of orders by hour of the day

8- Join relevant tables to find the category wise distribution of pizzas

9- Group the orders by date and calculate the average number of pizzas ordered per day

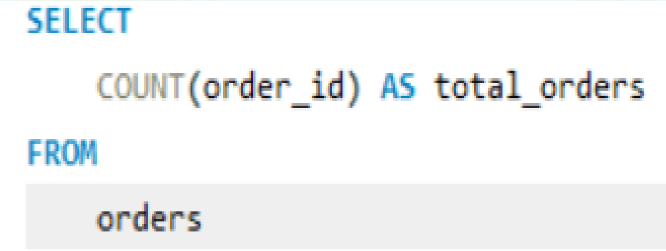
10- Determine the top 3 most ordered pizza types based on revenue

11- Calculate the percentage contribution of each pizza type to total revenue

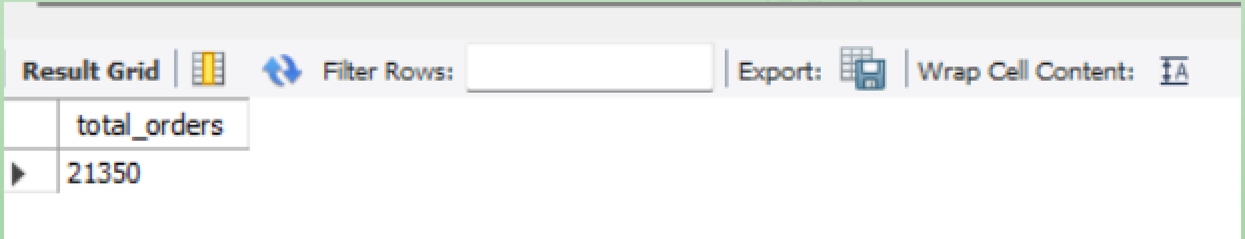
12- Determine the cumulative revenue generated over time

13- Determine the top 3 most ordered pizza types based on revenue for each pizza category

# 1 - Retrieve the total no of order placed

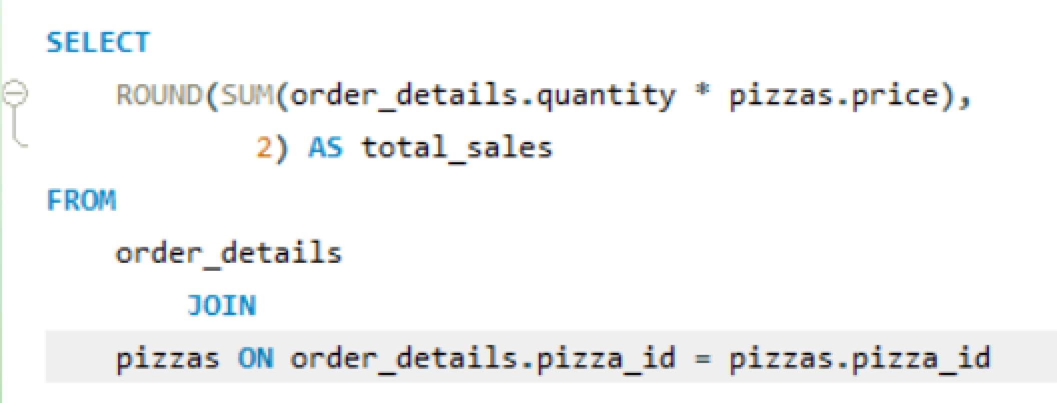


```
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders
```

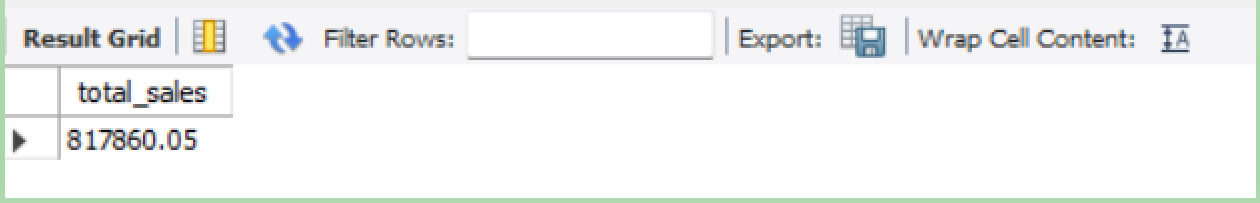


```
total_orders
21350
```

# 2 - Calculate the total revenue generated from pizza sales

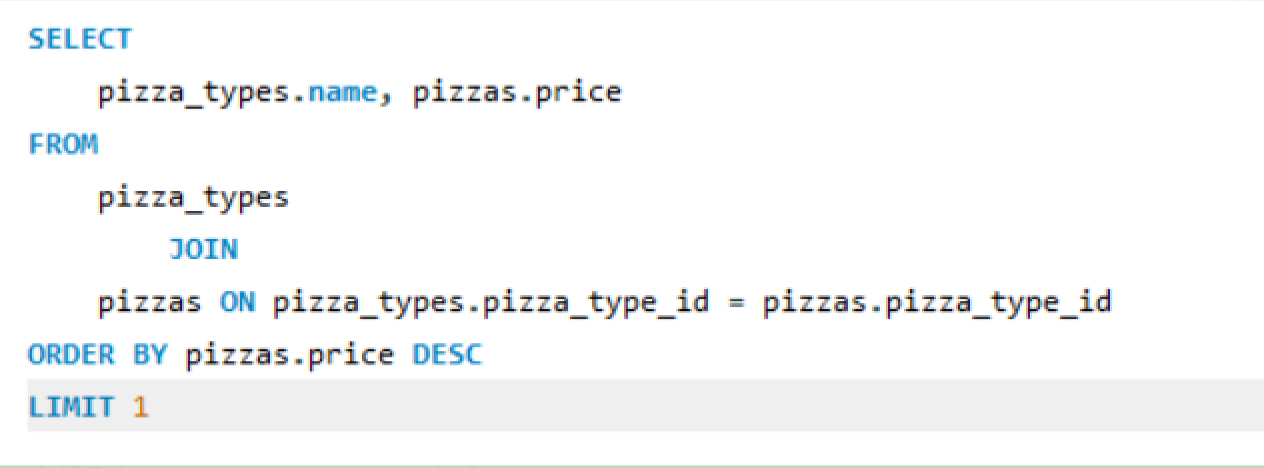


```
SELECT
    ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
```

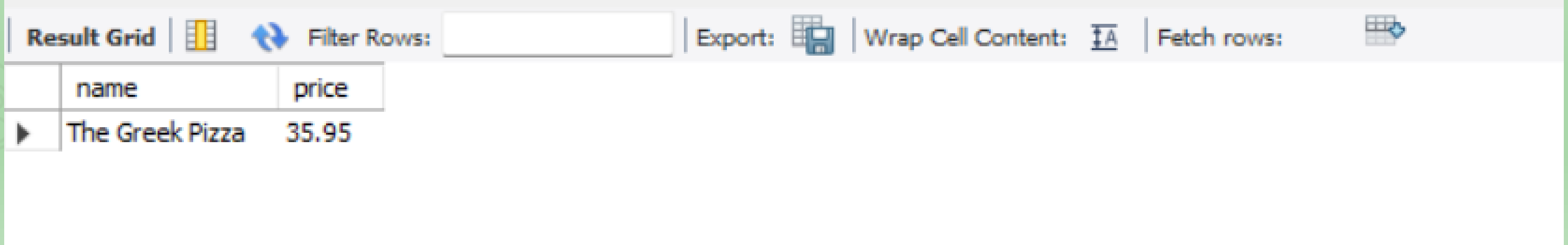


| total_sales |
|---|
| 817860.05 |

# 3 - Identify highest price pizzas

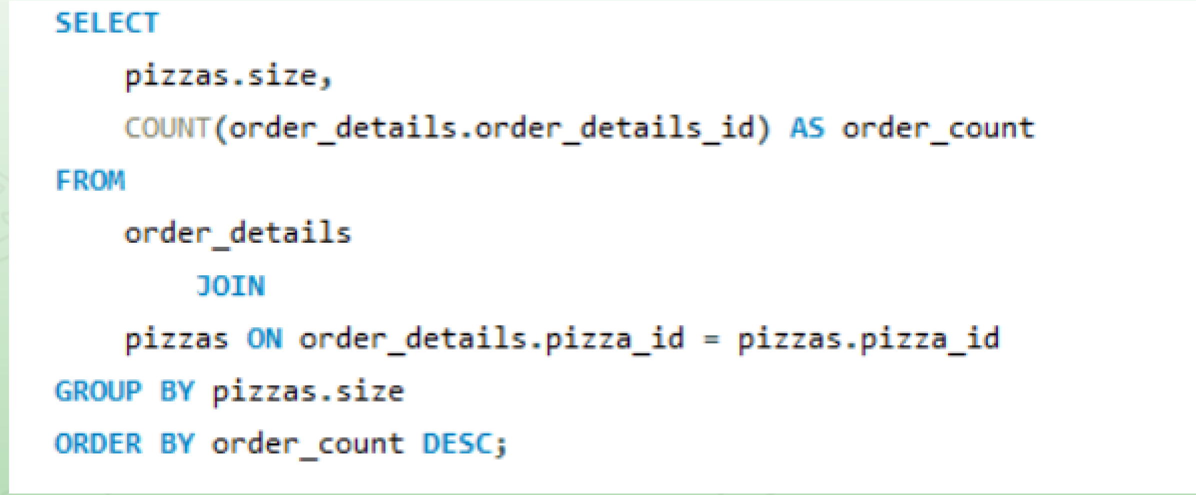


```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1
```

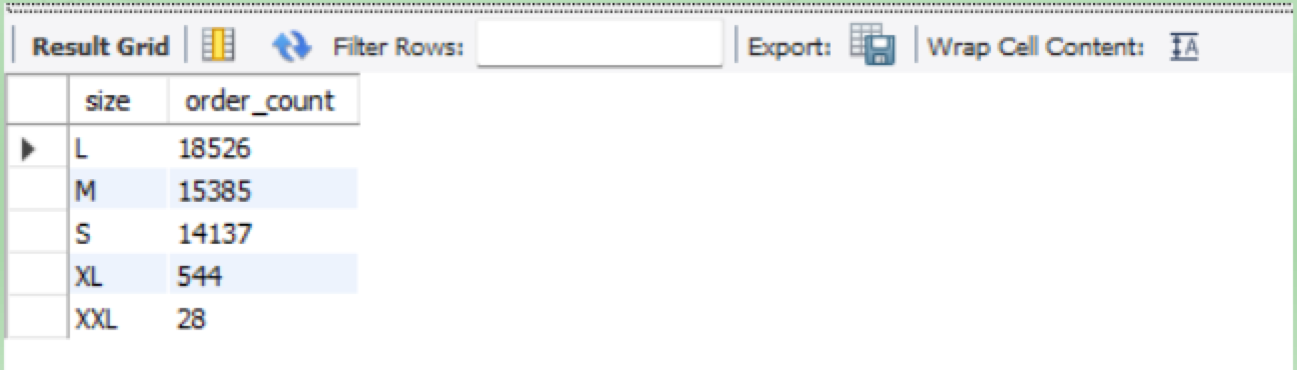


| name | price |
|---|---|
| The Greek Pizza | 35.95 |

# 4 - Identify the most common pizza size ordered

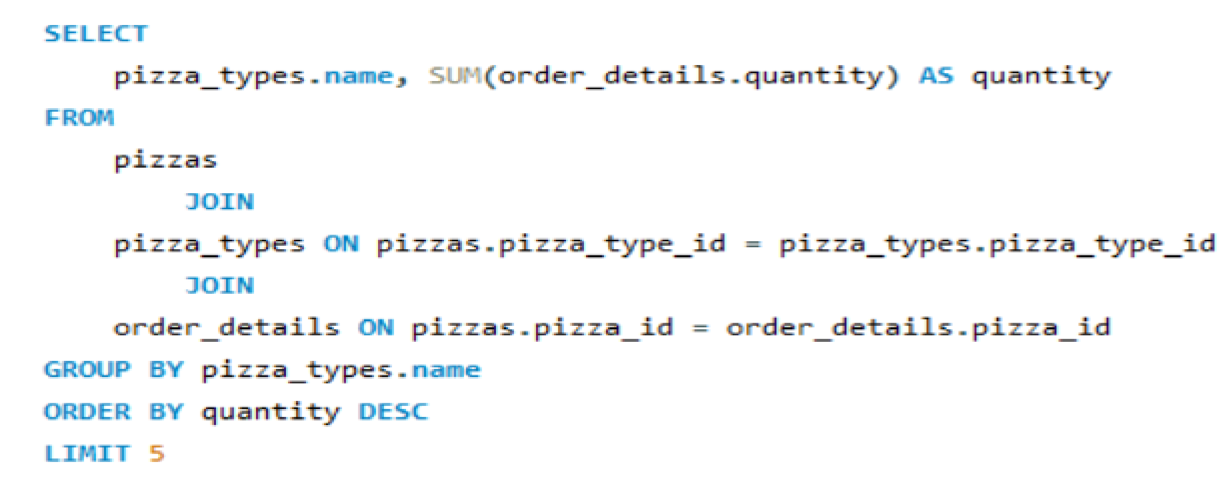


```
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    order_details
        JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```

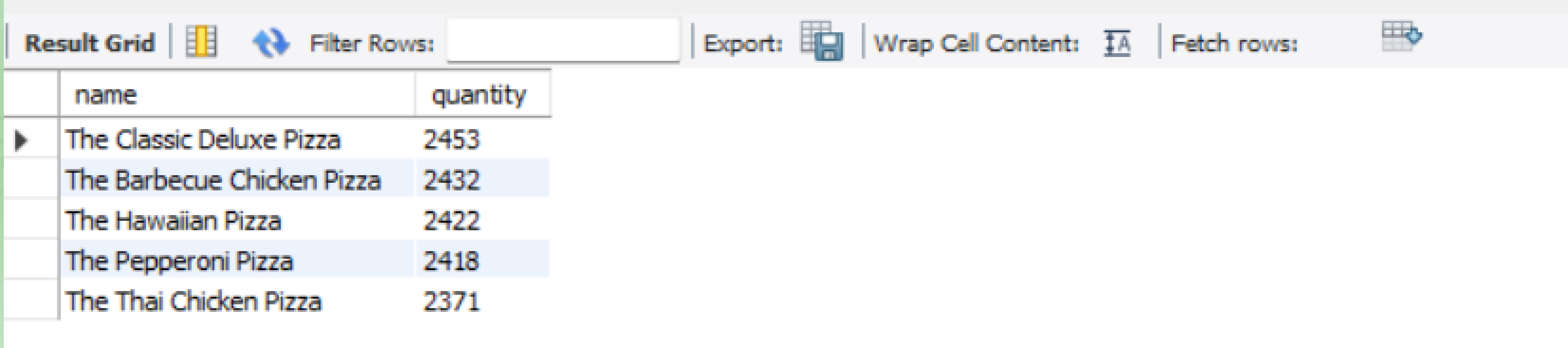


| size | order_count |
|---|---|
| L | 18526 |
| M | 15385 |
| S | 14137 |
| XL | 544 |
| XXL | 28 |

# 5 - List the top 5 most ordered pizza types, along with their quantities

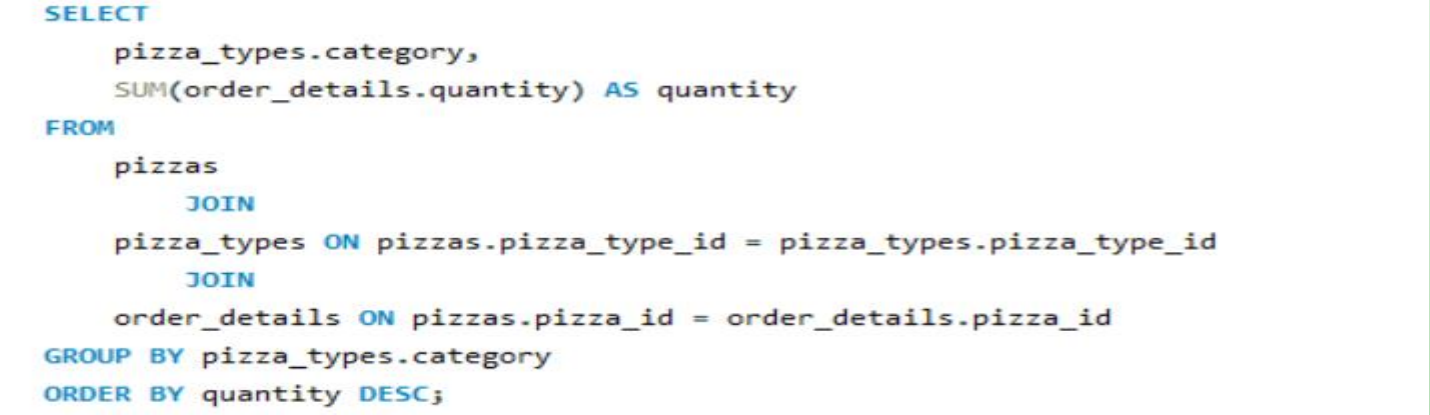


```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
    pizzas
        JOIN
    pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5
```

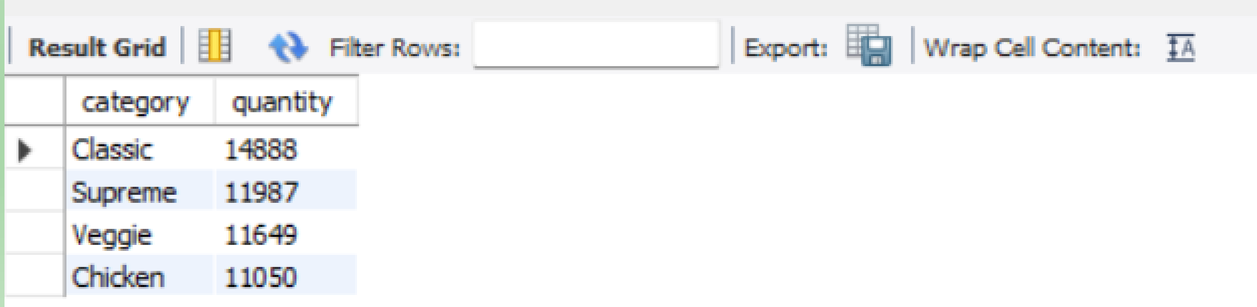


| name | quantity |
|---|---|
| The Classic Deluxe Pizza | 2453 |
| The Barbecue Chicken Pizza | 2432 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |

# 6 - Join the necessary tables to find the total quantity of each pizza category ordered

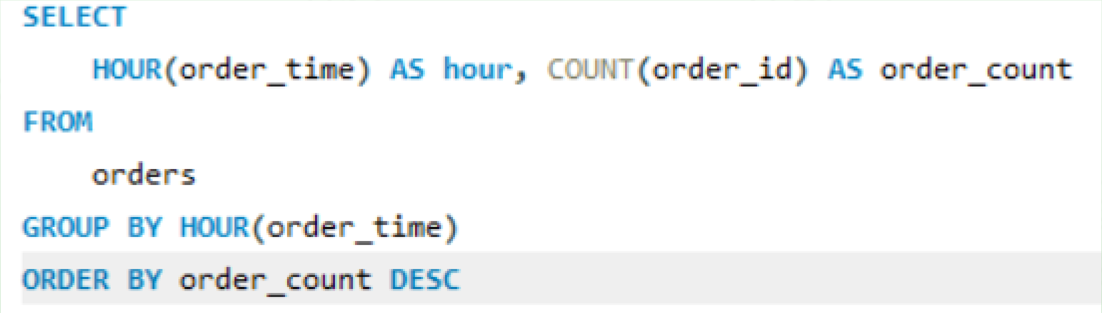


```sql
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizzas
        JOIN
    pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```

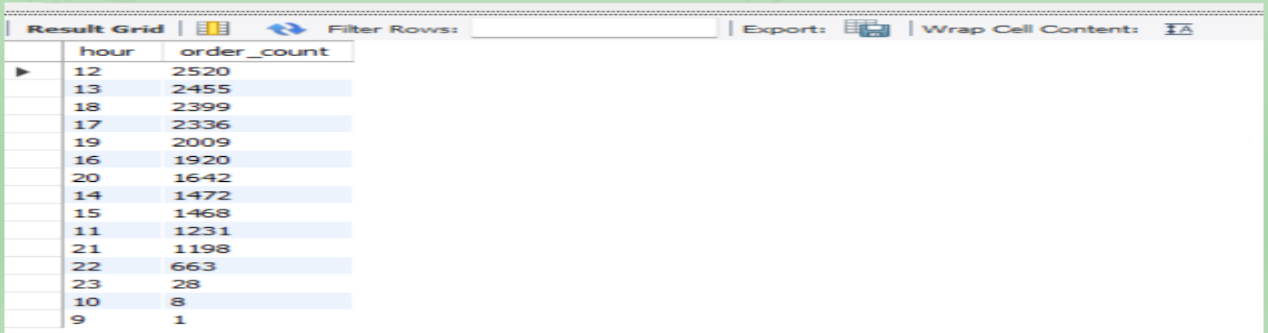


| category | quantity |
|---|---|
| Classic | 14888 |
| Supreme | 11987 |
| Veggie | 11649 |
| Chicken | 11050 |

# 7 - determine the distribution of orders by hour of the day

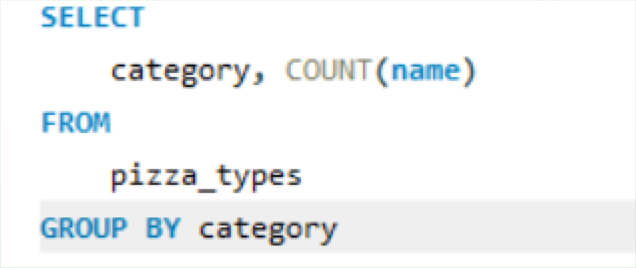


```
SELECT
    HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time)
ORDER BY order_count DESC
```

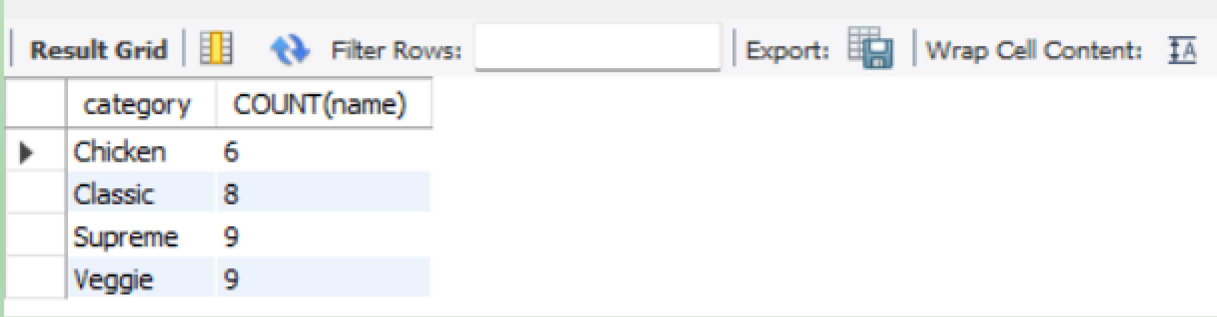


| hour | order_count |
|---|---|
| 12 | 2520 |
| 13 | 2455 |
| 18 | 2399 |
| 17 | 2336 |
| 19 | 2009 |
| 16 | 1920 |
| 20 | 1642 |
| 14 | 1472 |
| 15 | 1468 |
| 11 | 1231 |
| 21 | 1198 |
| 22 | 663 |
| 23 | 28 |
| 10 | 8 |
| 9 | 1 |

# 8 - Join relevant tables to find the category wise distribution of pizzas

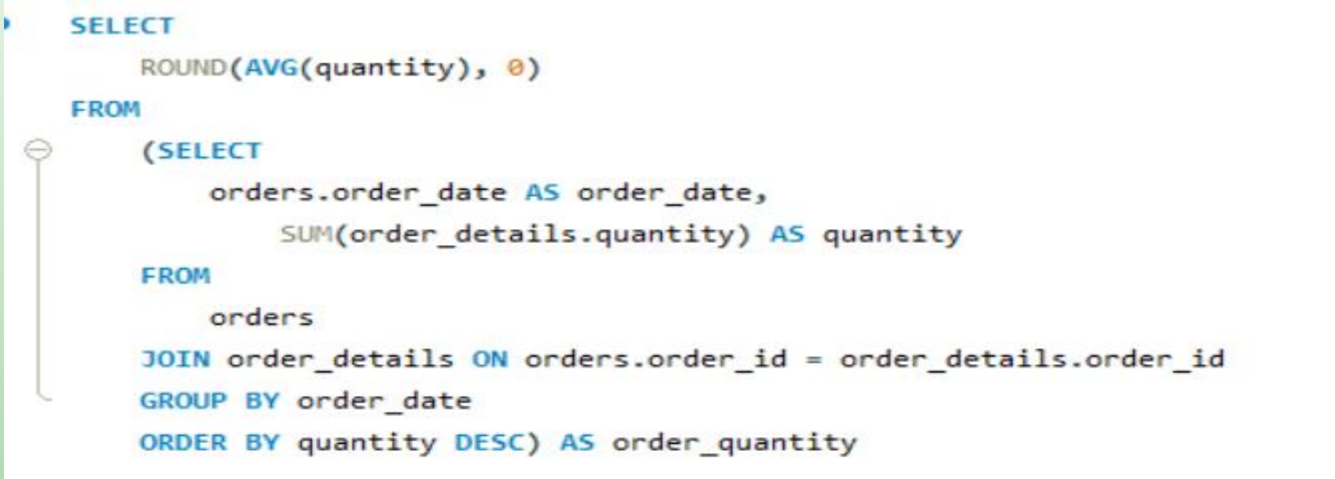


```
SELECT
    category, COUNT(name)
FROM
    pizza_types
GROUP BY category
```

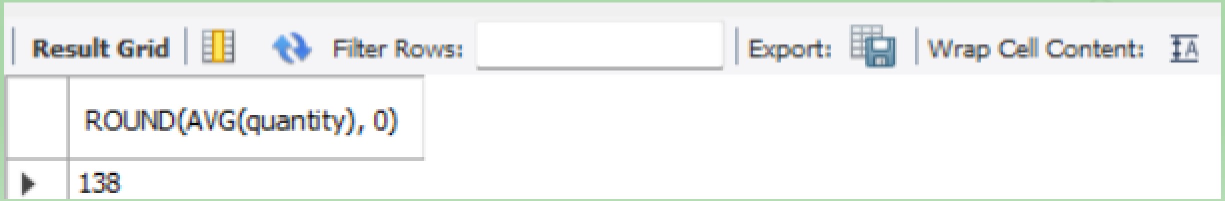


| category | COUNT(name) |
|---|---|
| Chicken | 6 |
| Classic | 8 |
| Supreme | 9 |
| Veggie | 9 |

# 9 - Group the orders by date and calculate the average number of pizzas ordered per day

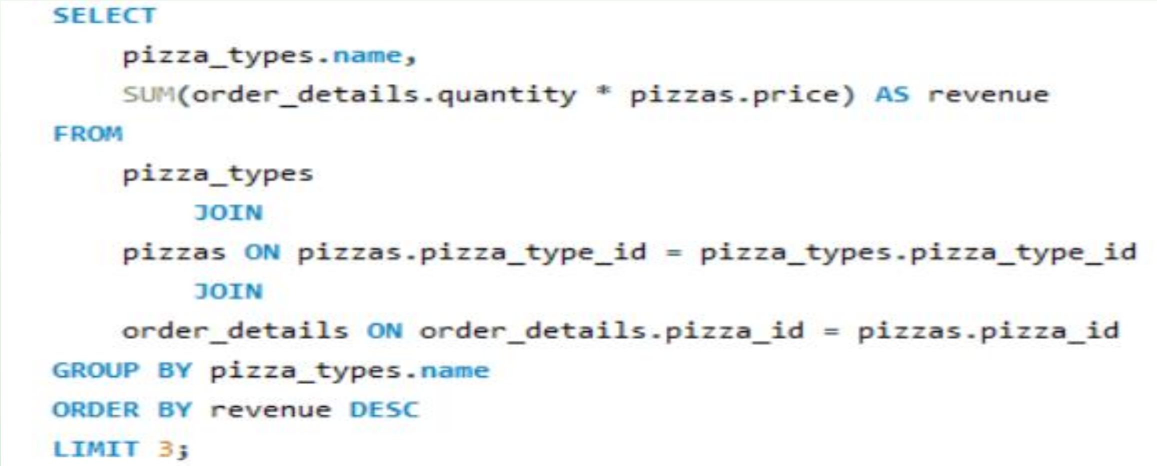


```
SELECT
    ROUND(AVG(quantity), 0)
FROM
    (SELECT
        orders.order_date AS order_date,
            SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY order_date
    ORDER BY quantity DESC) AS order_quantity
```

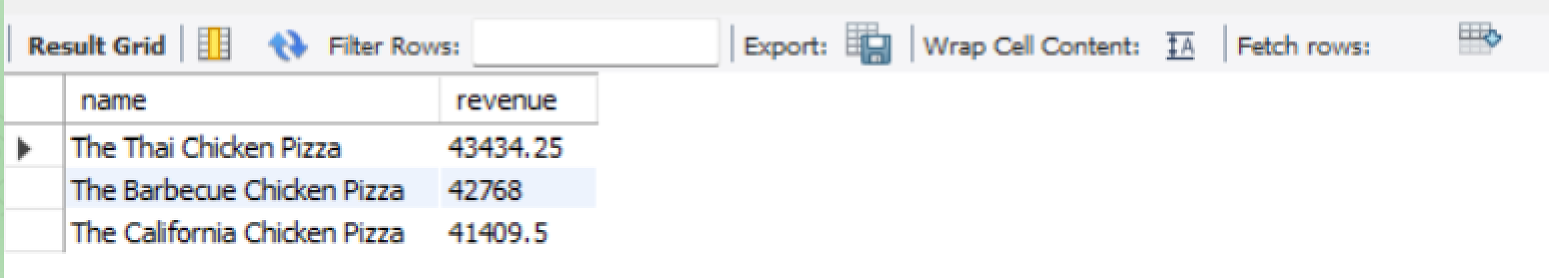


| ROUND(AVG(quantity), 0) |
|---|
| 138 |

# 10 - Determine the top 3 most ordered pizza types based on revenue

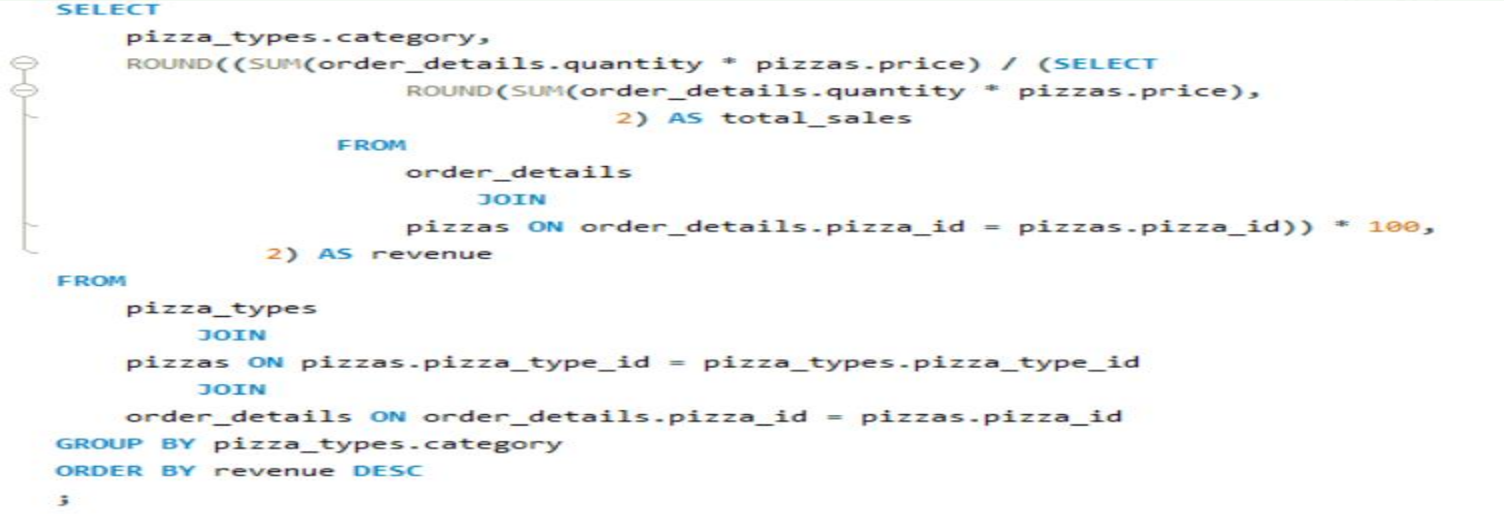


```
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

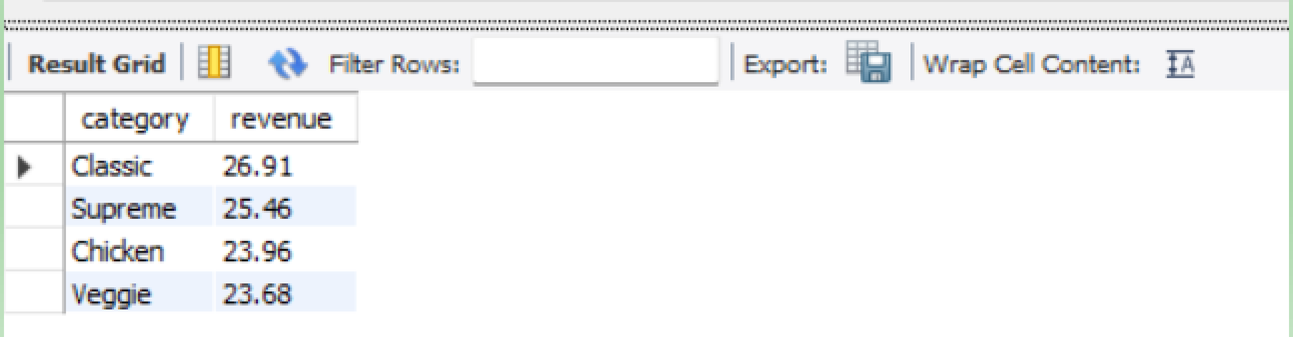


| name | revenue |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768 |
| The California Chicken Pizza | 41409.5 |

# 11 - Calculate the percentage contribution of each pizza type to total revenue

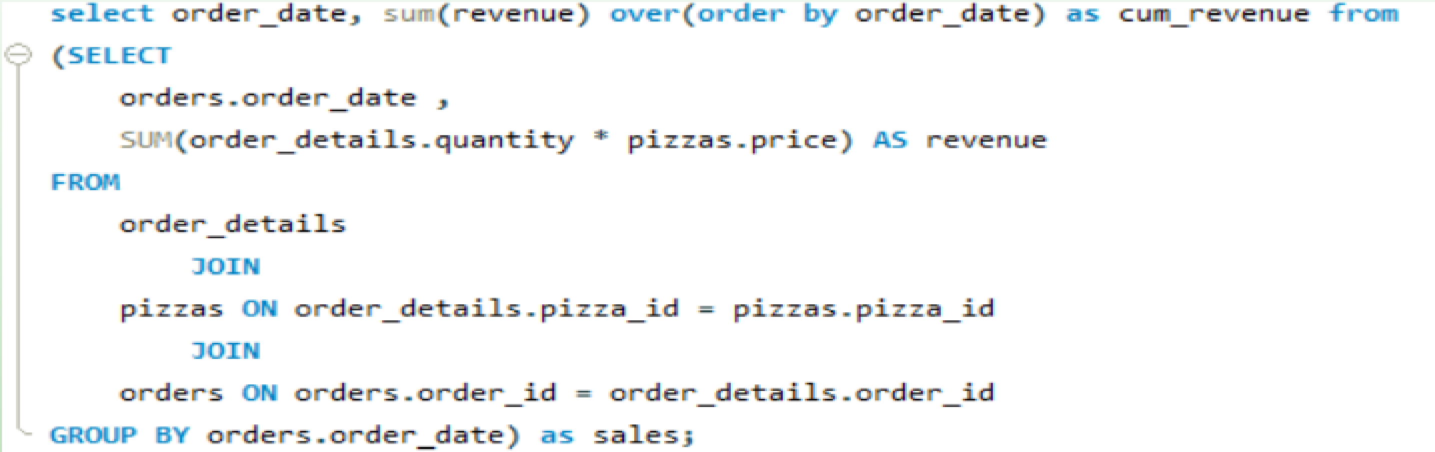


```
SELECT
    pizza_types.category,
    ROUND((SUM(order_details.quantity * pizzas.price) / (SELECT
                    ROUND(SUM(order_details.quantity * pizzas.price),
                                2) AS total_sales
                FROM
                    order_details
                        JOIN
                    pizzas ON order_details.pizza_id = pizzas.pizza_id)) * 100,
            2) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY revenue DESC
;
```

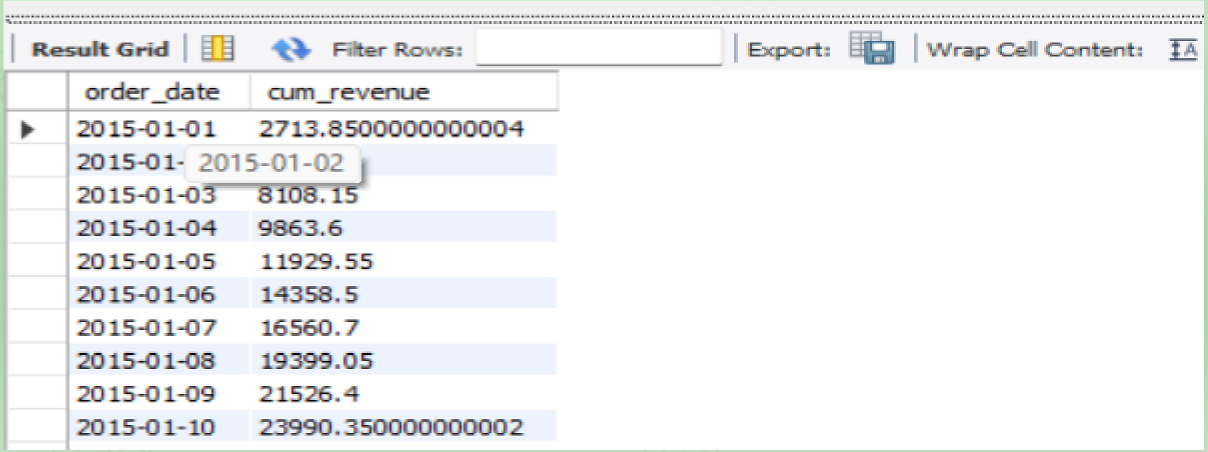


| category | revenue |
|---|---|
| Classic | 26.91 |
| Supreme | 25.46 |
| Chicken | 23.96 |
| Veggie | 23.68 |

# 12 - Determine the cumulative revenue generated over time

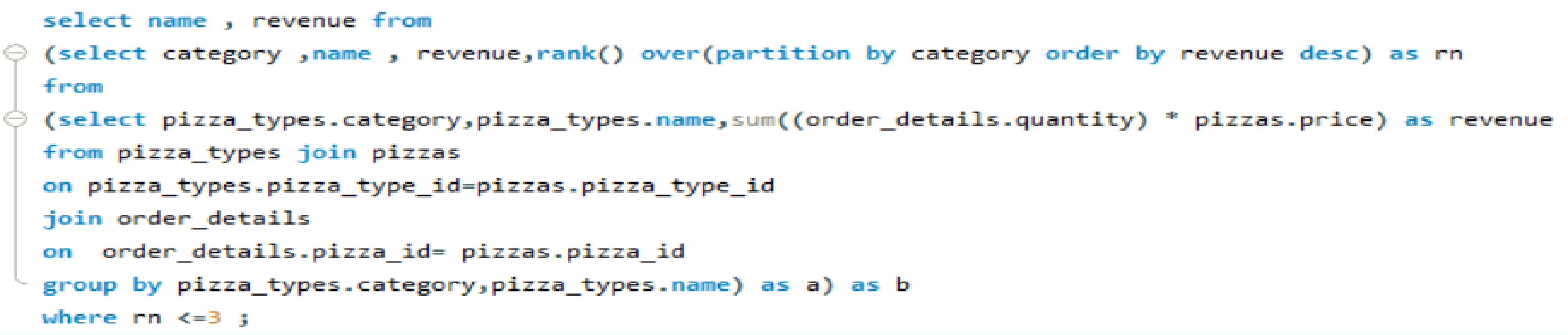


```
select order_date, sum(revenue) over(order by order_date) as cum_revenue from
(SELECT
    orders.order_date ,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    order_details
        JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
        JOIN
    orders ON orders.order_id = order_details.order_id
GROUP BY orders.order_date) as sales;
```

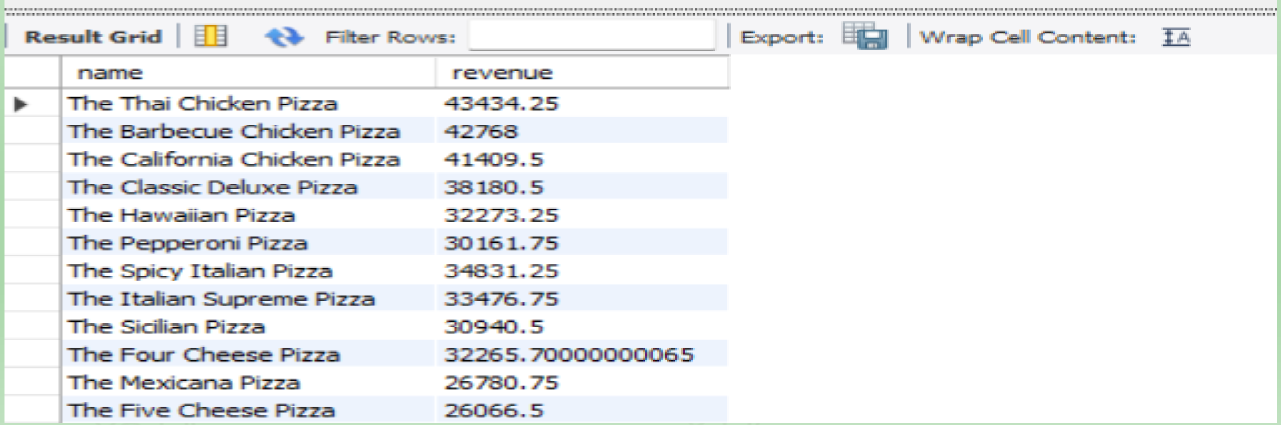


| order_date | cum_revenue |
|---|---|
| 2015-01-01 | 2713.8500000000004 |
| 2015-01- 2015-01-02 | |
| 2015-01-03 | 8108.15 |
| 2015-01-04 | 9863.6 |
| 2015-01-05 | 11929.55 |
| 2015-01-06 | 14358.5 |
| 2015-01-07 | 16560.7 |
| 2015-01-08 | 19399.05 |
| 2015-01-09 | 21526.4 |
| 2015-01-10 | 23990.350000000002 |

# 13 - Determine the top 3 most ordered pizza types based on revenue for each pizza category



```
select name , revenue from
(select category ,name , revenue,rank() over(partition by category order by revenue desc) as rn
from
(select pizza_types.category,pizza_types.name,sum((order_details.quantity) * pizzas.price) as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join order_details
on  order_details.pizza_id= pizzas.pizza_id
group by pizza_types.category,pizza_types.name) as a) as b
where rn <=3 ;
```



| name | revenue |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768 |
| The California Chicken Pizza | 41409.5 |
| The Classic Deluxe Pizza | 38180.5 |
| The Hawaiian Pizza | 32273.25 |
| The Pepperoni Pizza | 30161.75 |
| The Spicy Italian Pizza | 34831.25 |
| The Italian Supreme Pizza | 33476.75 |
| The Sicilian Pizza | 30940.5 |
| The Four Cheese Pizza | 32265.70000000065 |
| The Mexicana Pizza | 26780.75 |
| The Five Cheese Pizza | 26066.5 |

# THANK YOU