# PizzaHut Sales Report

## using MySql Workbench

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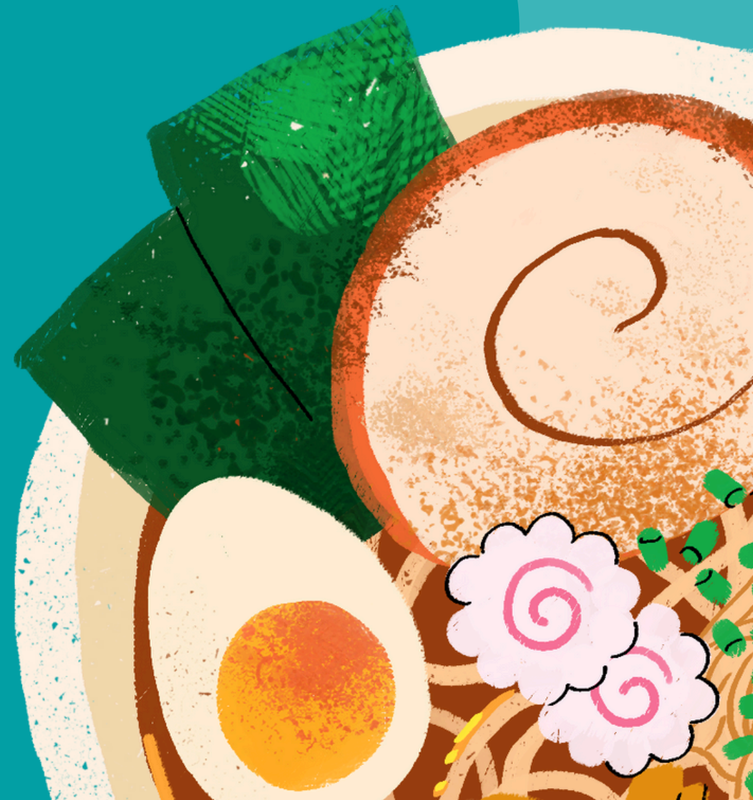
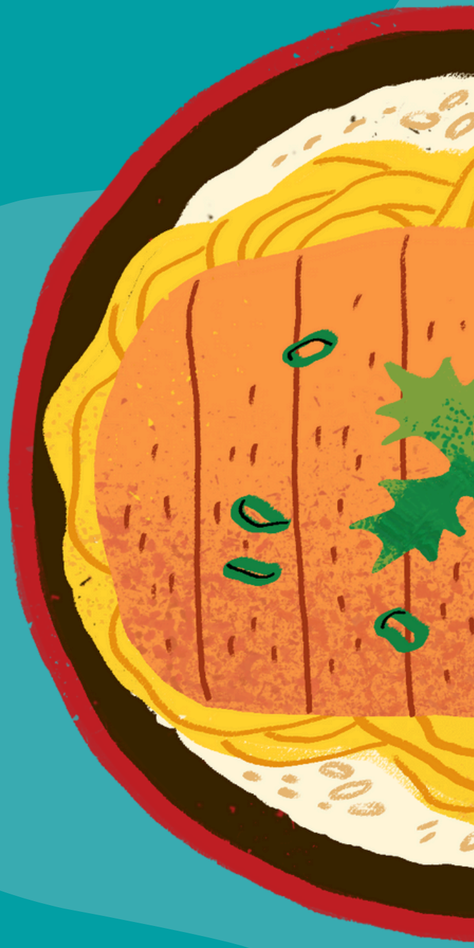


# PROJECT OVERVIEW

This project is combination of different queries along with their solutions and outputs  from MySql workbench

# WHAT I DID

- Imported Sales data as CSV files into MySql workbench.
- Cleaned and verified data  related to Pizzas and Order Details.
- Run several queries to  understand data using SQL.



## 1) Retrieve the total number of orders placed.

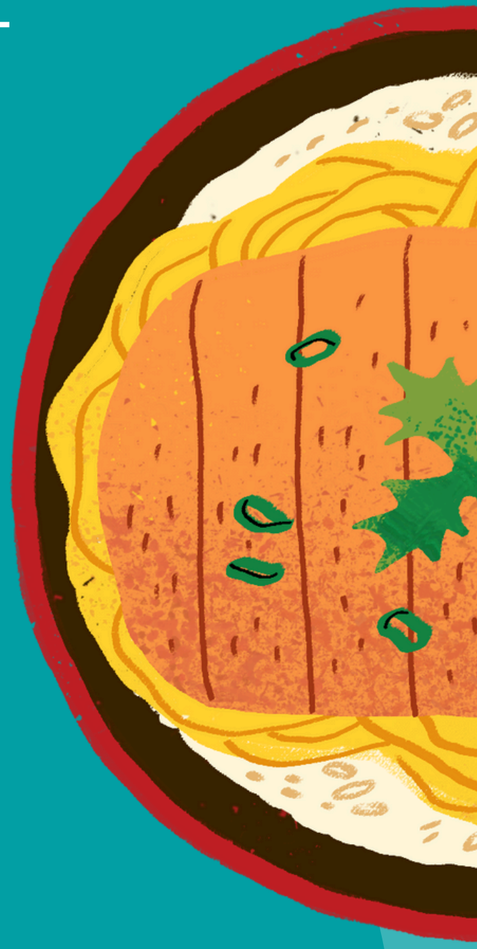
**Query:**

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

**Output:**

Result Grid | Filter Rows:

| | total_orders |
|---|---|
| ▶ | 21350 |



## 2) Calculate the total revenue generated from pizza sales.

**Query:**

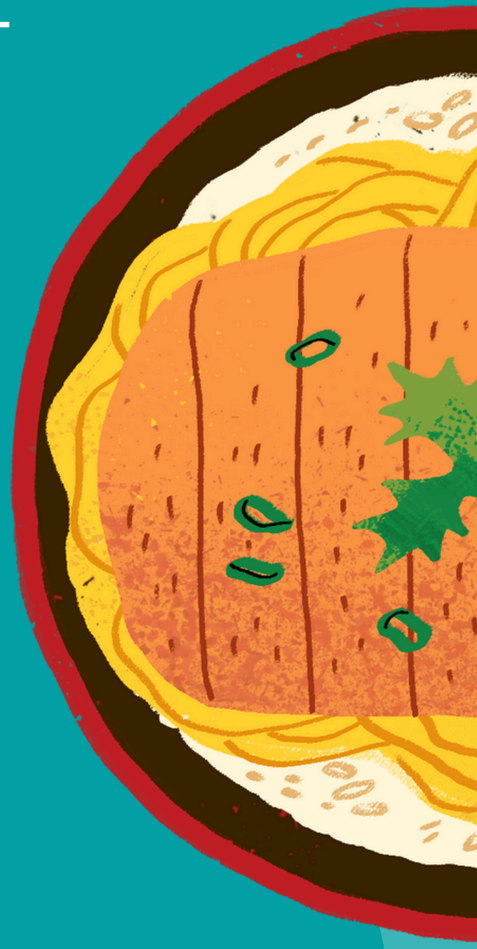
```
with x as (select p.pizza_id , p.price , o.quantity ,
 p.price * o.quantity as amount  from pizzas p
join order_details o
using(pizza_id) )

select round(sum(amount) ,2)  as total_revenue from x ;
```

**Output:**

Result Grid | Filter Rows:

| total_revenue |
|---|
| 817860.05 |



## 3) Identify the highest-priced pizza.

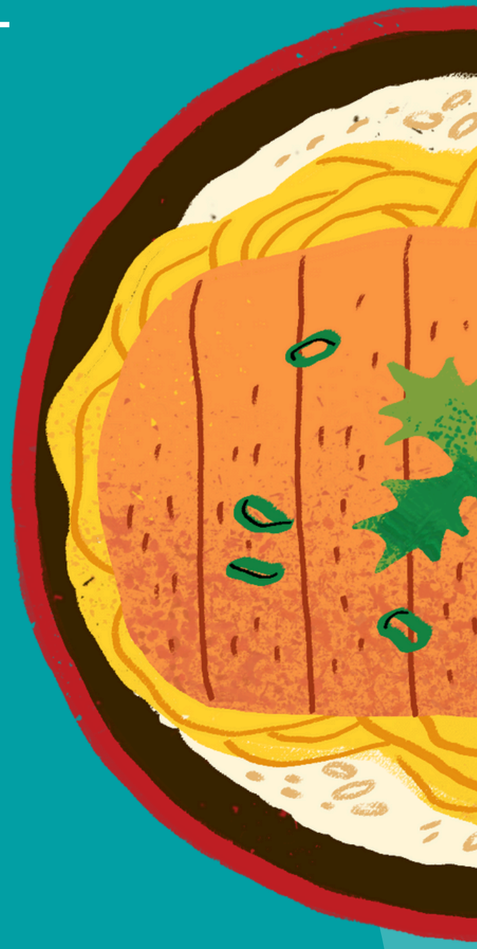
### Query:

```
SELECT
    t.name, p.price
FROM pizzas p
JOIN pizza_types t USING (pizza_type_id)
WHERE p.price = (SELECT MAX(price) FROM pizzas);
```

### Output:

Result Grid | Filter Rows:

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



## 4) Identify the most common pizza size ordered.

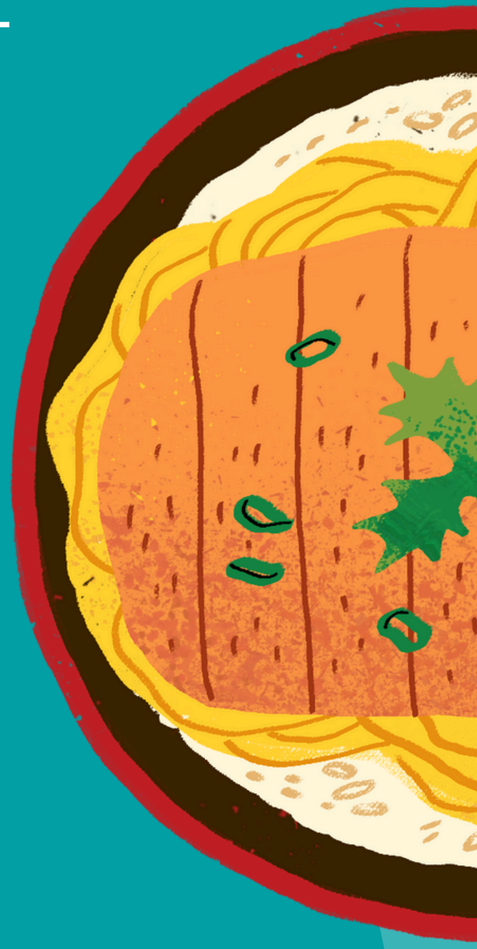
### Query:

```
SELECT
    size, SUM(quantity) AS count
FROM pizzas p
JOIN order_details o USING (pizza_id)
GROUP BY size
ORDER BY count DESC LIMIT 1;
```

### Output:

Result Grid | Filter Rows:

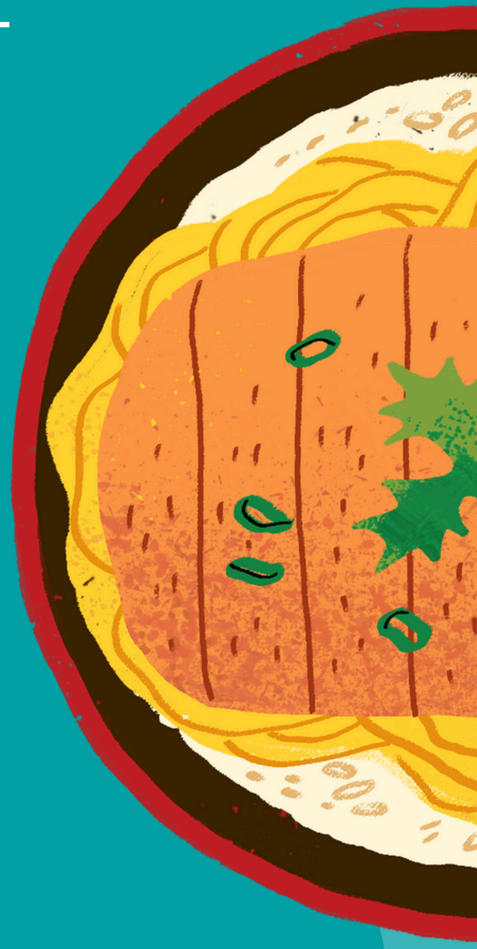
| size | count |
|---|---|
| L | 18956 |



## 5) List the top 5 most ordered pizza types along with their quantities.

### Query:

```
SELECT p.name AS name, SUM(o.quantity) AS total_quantity FROM pizza_types p
JOIN pizzas a
USING (pizza_type_id)
JOIN order_details o
USING (pizza_id)
GROUP BY name
ORDER BY total_quantity DESC LIMIT 5;
```



### Output:

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

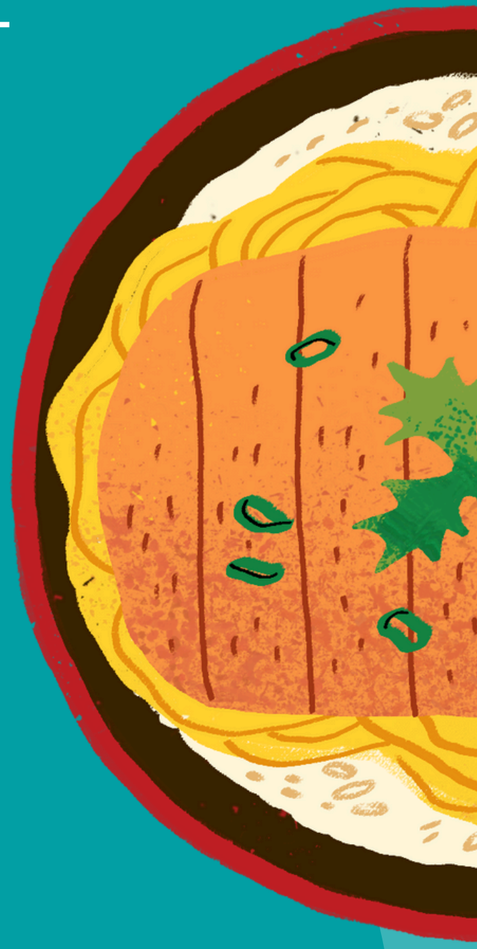
## 6) Join the necessary tables to find the total quantity of each pizza category ordered.

### Query:

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

### Output:

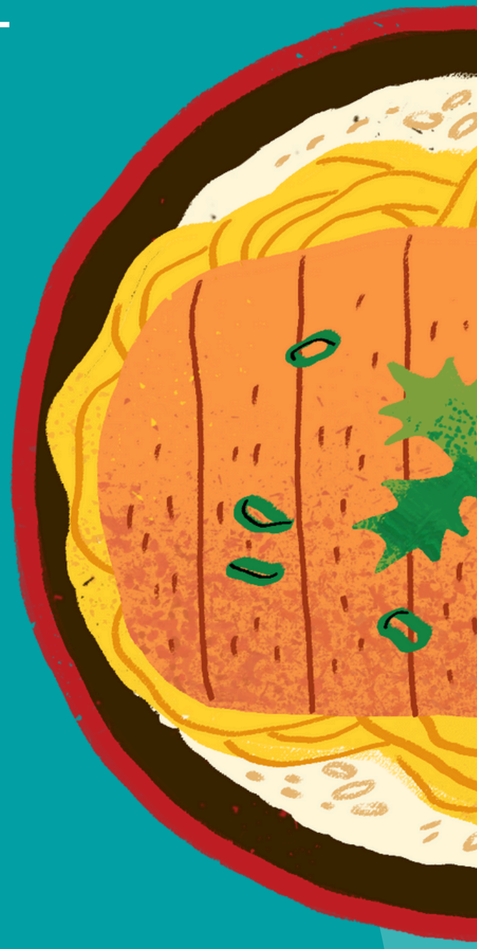
| category | total_quantity |
|---|---|
| Classic | 14888 |
| Supreme | 11987 |
| Veggie | 11649 |
| Chicken | 11050 |



## 7) Determine the distribution of orders by hour of the day.

**Query:**

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



**Output:**

| hour | COUNT(order_id) |
|---|---|
| 12 | 2520 |
| 13 | 2455 |
| 18 | 2399 |
| 17 | 2336 |
| 19 | 2009 |
| 16 | 1920 |
| 20 | 1642 |
| 14 | 1472 |
| 15 | 1468 |
| 11 | 1231 |
| 21 | 1198 |

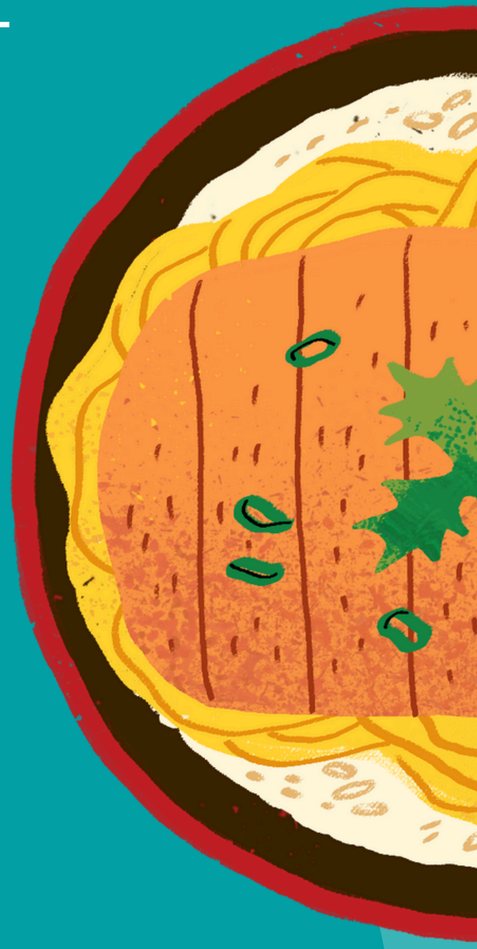
## 8) Find the category-wise distribution of pizzas.

**Query:**

```
SELECT
    category, COUNT(pizza_type_id) AS types
FROM
    pizza_types
GROUP BY category;
```

**Output:**

| category | types |
|---|---|
| Chicken | 6 |
| Classic | 8 |
| Supreme | 9 |
| Veggie | 9 |



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

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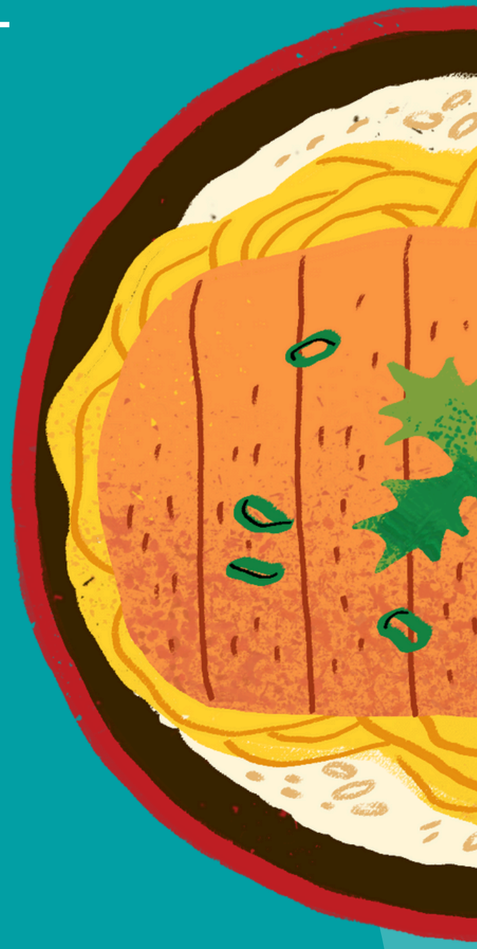
### Query:

```
with x as (SELECT
    DATE(o.date) AS date, sum(d.quantity) AS quantity
FROM
    order_details d
        JOIN
    orders o USING (order_id)
GROUP BY o.date
ORDER BY quantity DESC)

select round(avg(quantity) , 0) as avg_quantity from x ;
```



### Output:

Result Grid | Filter Rows:

| | avg_quantity |
|---|---|
| ▶ | 138 |

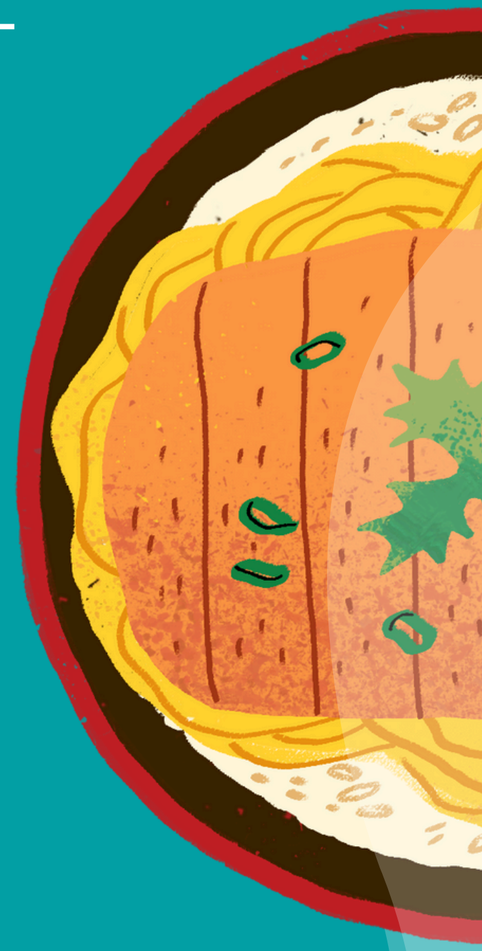
## 10) Determine the top 3 most ordered pizza types based on revenue.

### Query:

```
SELECT
    p.name,
    SUM(o.quantity * s.price) AS total_revenue
FROM pizza_types p
JOIN pizzas s
    USING (pizza_type_id)
JOIN order_details o
    USING (pizza_id)
GROUP BY p.name
ORDER BY total_revenue DESC
limit 3 ;
```

### Output:

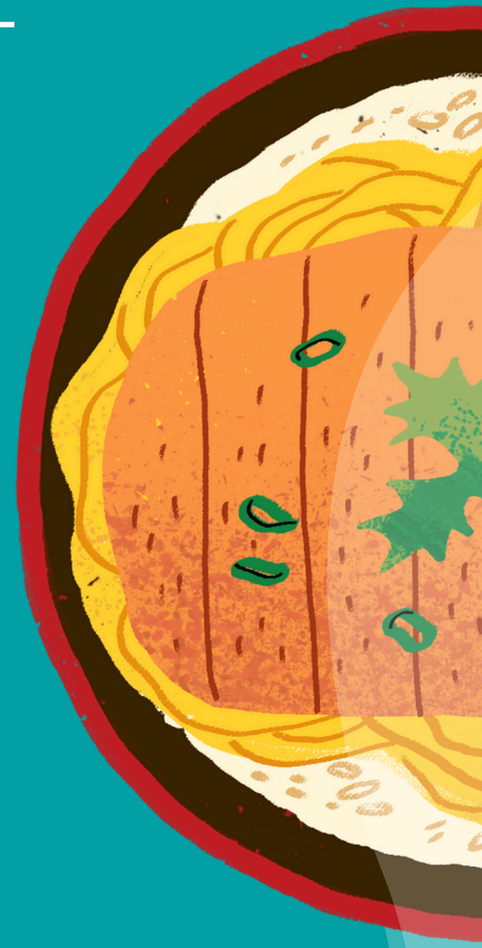
| name | total_revenue |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768 |
| The California Chicken Pizza | 41409.5 |



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

### Query:

```
SELECT
    p.category,
    ROUND(100.0 * SUM(o.quantity * s.price) / (SELECT SUM(o2.quantity * s2.price)
 FROM pizzas s2
JOIN
 order_details o2 USING (pizza_id)), 2) AS pct_contribution
FROM pizza_types p
JOIN pizzas s
USING (pizza_type_id)
JOIN order_details o
USING (pizza_id)
GROUP BY p.category;
```



### Output:

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

## 12) Analyze the cumulative revenue generated over time.

### Query:

```
with x as (select date(o.date) as date  ,
round(sum(p.price * d.quantity) , 2) as revenue
from orders o
join order_details d
using(order_id)
join pizzas p
using(pizza_id)
group by date)

select date, sum(revenue) over(order by date)
as cummilative_revenue from x ;
```

### Output:

| | date | cummilative_revenue |
|---|---|---|
| ▶ | 2015-01-01 | 2713.85 |
| | 2015-01-02 | 5445.75 |
| | 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 | 21526.399999999998 |
| | 2015-01-10 | 23990.35 |

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

## Query:

```
with x as (WITH pizza_revenue AS (SELECT t.name,
t.category, ROUND(SUM(p.price * o.quantity), 2) AS revenue
FROM pizza_types t
JOIN pizzas p
 USING (pizza_type_id)
JOIN order_details o
USING (pizza_id)
GROUP BY t.name, t.category
)
SELECT name , category,
RANK() OVER (PARTITION BY category ORDER BY revenue DESC) AS rankings FROM pizza_revenue
ORDER BY category, rankings)

select * from x
where rankings <= 3 ;
```

## Output:

| name | category | rankings |
|---|---|---|
| The Thai Chicken Pizza | Chicken | 1 |
| The Barbecue Chicken Pizza | Chicken | 2 |
| The California Chicken Pizza | Chicken | 3 |
| The Classic Deluxe Pizza | Classic | 1 |
| The Hawaiian Pizza | Classic | 2 |
| The Pepperoni Pizza | Classic | 3 |
| The Spicy Italian Pizza | Supreme | 1 |
| The Italian Supreme Pizza | Supreme | 2 |
| The Sicilian Pizza | Supreme | 3 |
| The Four Cheese Pizza | Veggie | 1 |
| The Mexicana Pizza | Veggie | 2 |
| The Five Cheese Pizza | Veggie | 3 |

# Thanks for your time!