



# PIZZA BOX

SALES REPORT  
ANALYSIS

BY ABHINAV



# **PROBLEM STATEMENT:**

**THE COMPANY NEEDED TO IMPROVE ITS PIZZA SALES BY UNDERSTANDING CUSTOMER ORDER TRENDS, REVENUE PATTERNS, AND INVENTORY MANAGEMENT. THIS REQUIRED ANALYZING SALES DATA TO FIND THE MOST POPULAR PIZZA TYPES AND SIZES, AND THE BEST TIMES FOR RESOURCE ALLOCATION. ADDITIONALLY, SEGMENTING PIZZA SALES BY CATEGORY WAS NEEDED TO BOOST TARGETED MARKETING AND OVERALL EFFICIENCY.**

A large pizza with various toppings like pepperoni, ham, and cheese, served on a wooden board.

# ABOUT COMPANY

PIZZA BOX IS A RENOWNED INTERNATIONAL PIZZA RESTAURANT CHAIN THAT SPECIALIZES IN AMERICAN-STYLE PIZZA AND OTHER DISHES. IT WAS FOUNDED IN 1958 BY DAN AND FRANK CARNEY IN WICHITA, KANSAS. KNOWN FOR ITS INNOVATION AND QUALITY, PIZZA HUT OPERATES UNDER YUM! BRANDS AND HAS ADAPTED ITS MENU TO CATER TO VARIOUS INTERNATIONAL TASTES.

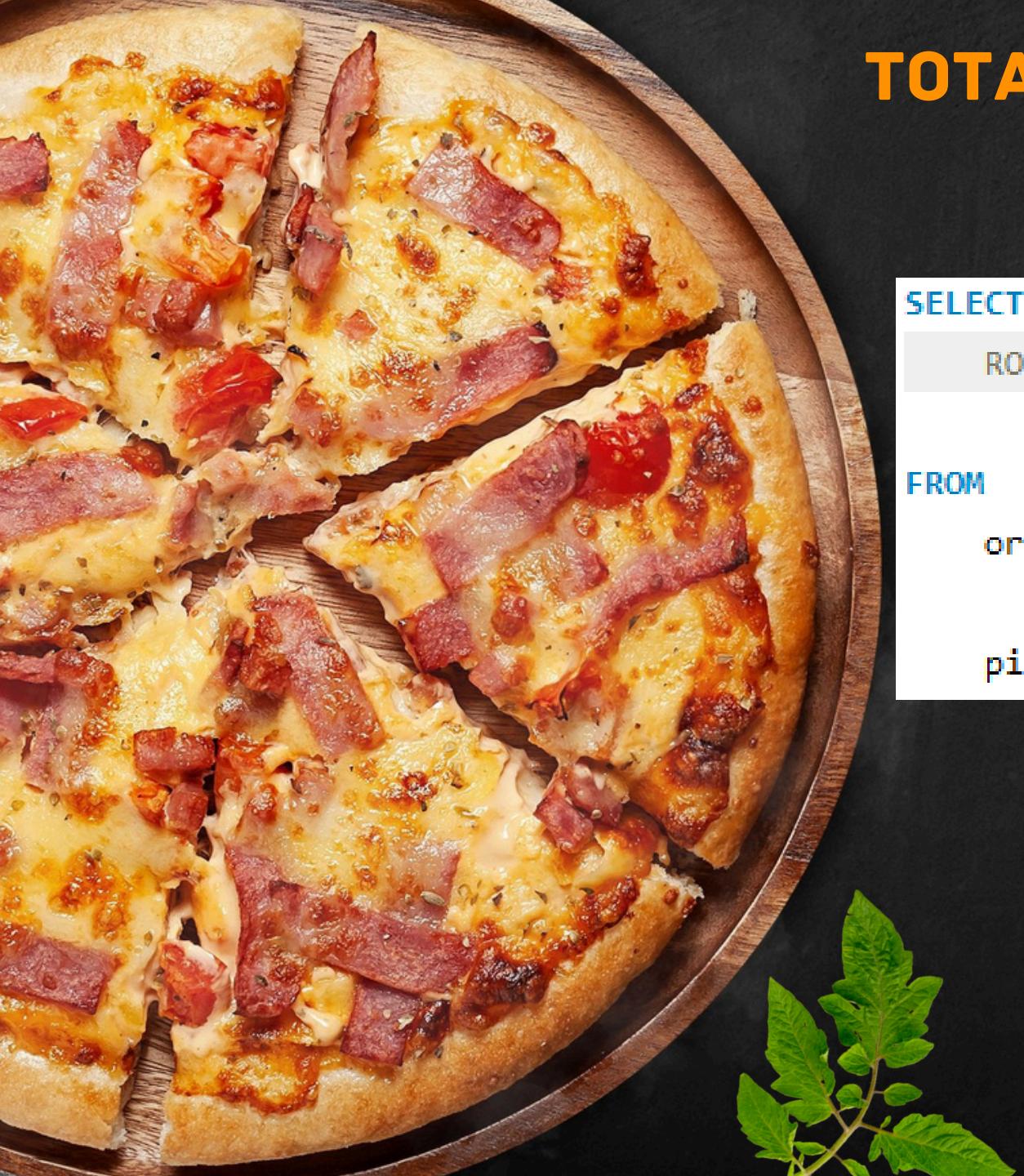
Green tomato leaves are scattered around the bottom and right side of the text area.

A large, round pizza with several slices removed, showing a golden-brown crust and toppings of melted cheese and ham. It sits on a dark wooden board against a black background.

# TOTAL NUMBER OF ORDERS PLACED

```
select count(order_id) as total_orders from orders;
```

Result Grid	
	total_orders
▶	21350



# TOTAL REVENUE GENERATED FROM PIZZA SALES

SELECT

```
ROUND(sum(order_details.quantity * pizzas.price),  
      2) AS total_sales
```

FROM

```
order_details
```

JOIN

```
pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

Result Grid

total_sales
817860.05



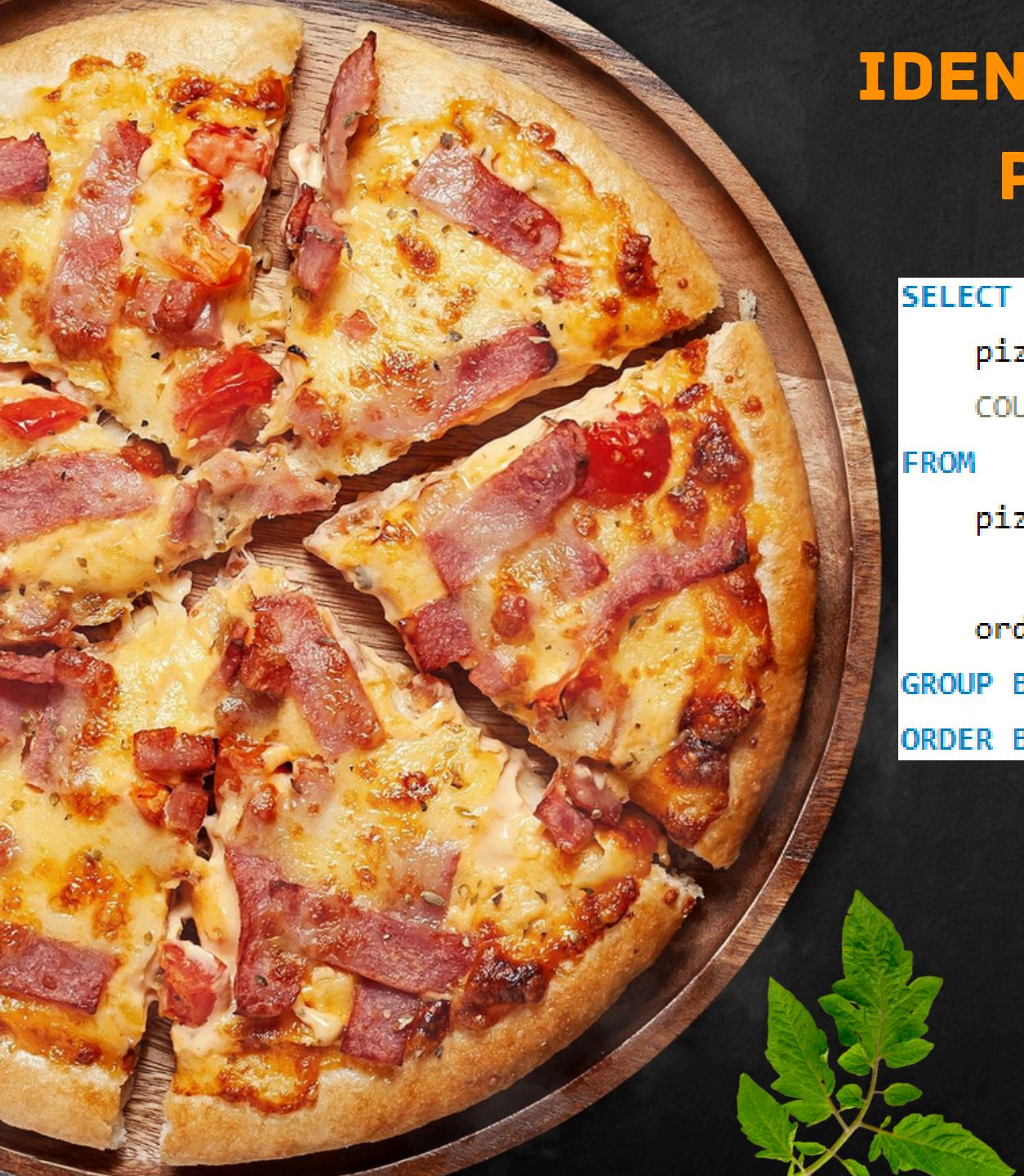
# IDENTIFY THE HIGHEST-PRICED PIZZA



```
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;
```

Result Grid | Filter R

	name	price
▶	The Greek Pizza	35.95



# IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

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

Result Grid		
	size	order_coun
▶	L	18526
	M	15385
	S	14137
	XL	544
	XXL	28



# TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES



SELECT

```
    pizza_types.name, SUM(order_details.quantity) AS quantity
  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.name
  ORDER BY quantity DESC
  LIMIT 5;
```

Result Grid | Filter Rows:

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



# JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED



**SELECT**

```
    pizza_types.category,  
    SUM(order_details.quantity) AS quantity  
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  
ORDER BY quantity DESC;
```

Result Grid

category	quantity
Classic	14888
Supreme	11987
Veggie	11649



# DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

SELECT

HOUR(order\_time) AS hour, COUNT(order\_id)

FROM

orders

GROUP BY HOUR(order\_time);

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

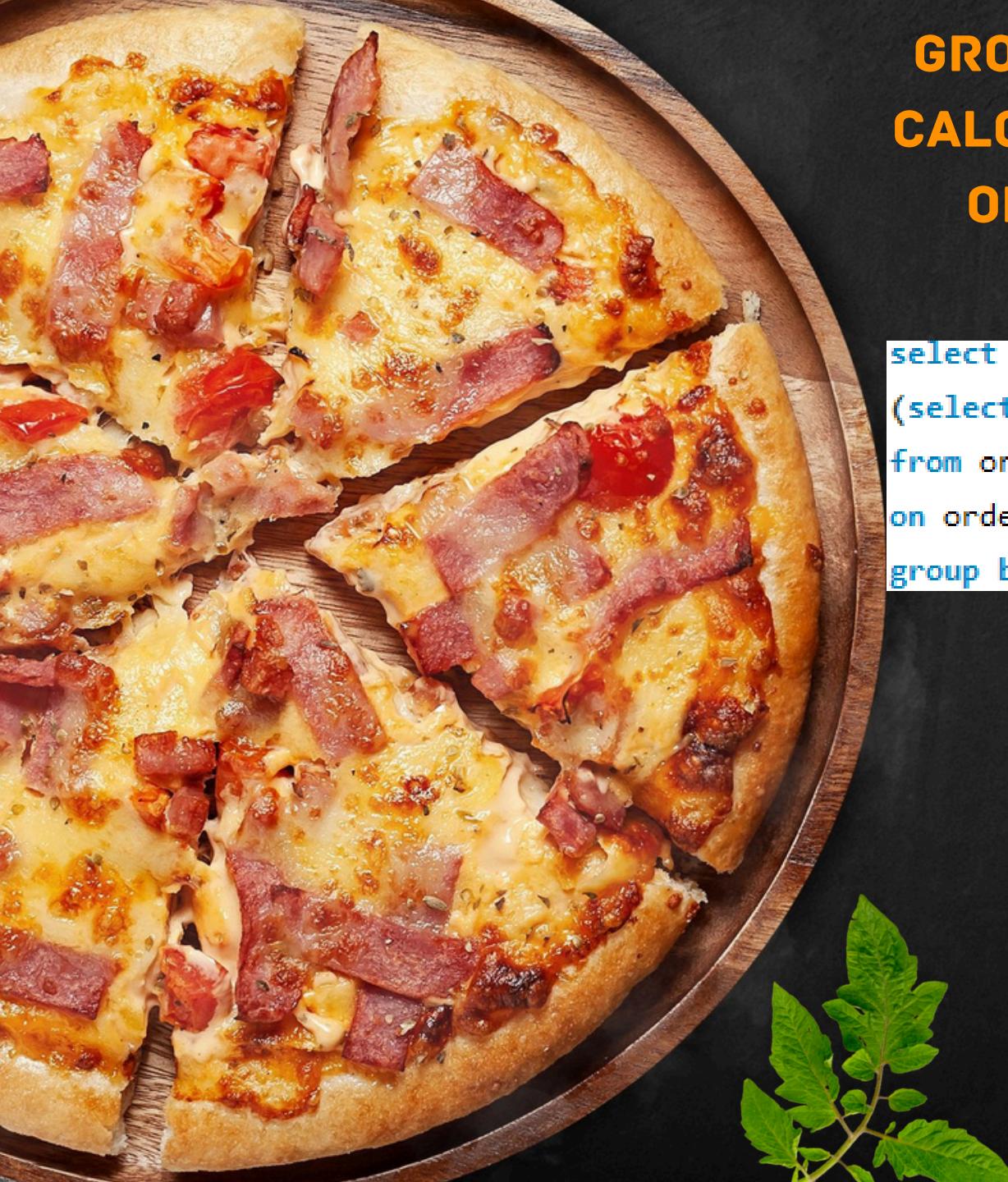


JOIN RELEVANT TABLES TO FIND THE  
CATEGORY-WISE DISTRIBUTION OF PIZZAS

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

Result Grid | Filter

	category	count(name)
1	Chicken	6
2	Classic	8
3	Supreme	9
4	Veggie	9



## GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY

```
select round(avg(quantity),0) as avg_pizzas_ordered from  
(select orders.order_date, sum(order_details.quantity) as quantity  
from orders join order_details  
on orders.order_id = order_details.order_id  
group by orders.order_date) as order_quantity;
```

Result Grid |  

avg_pizzas_ordered
138

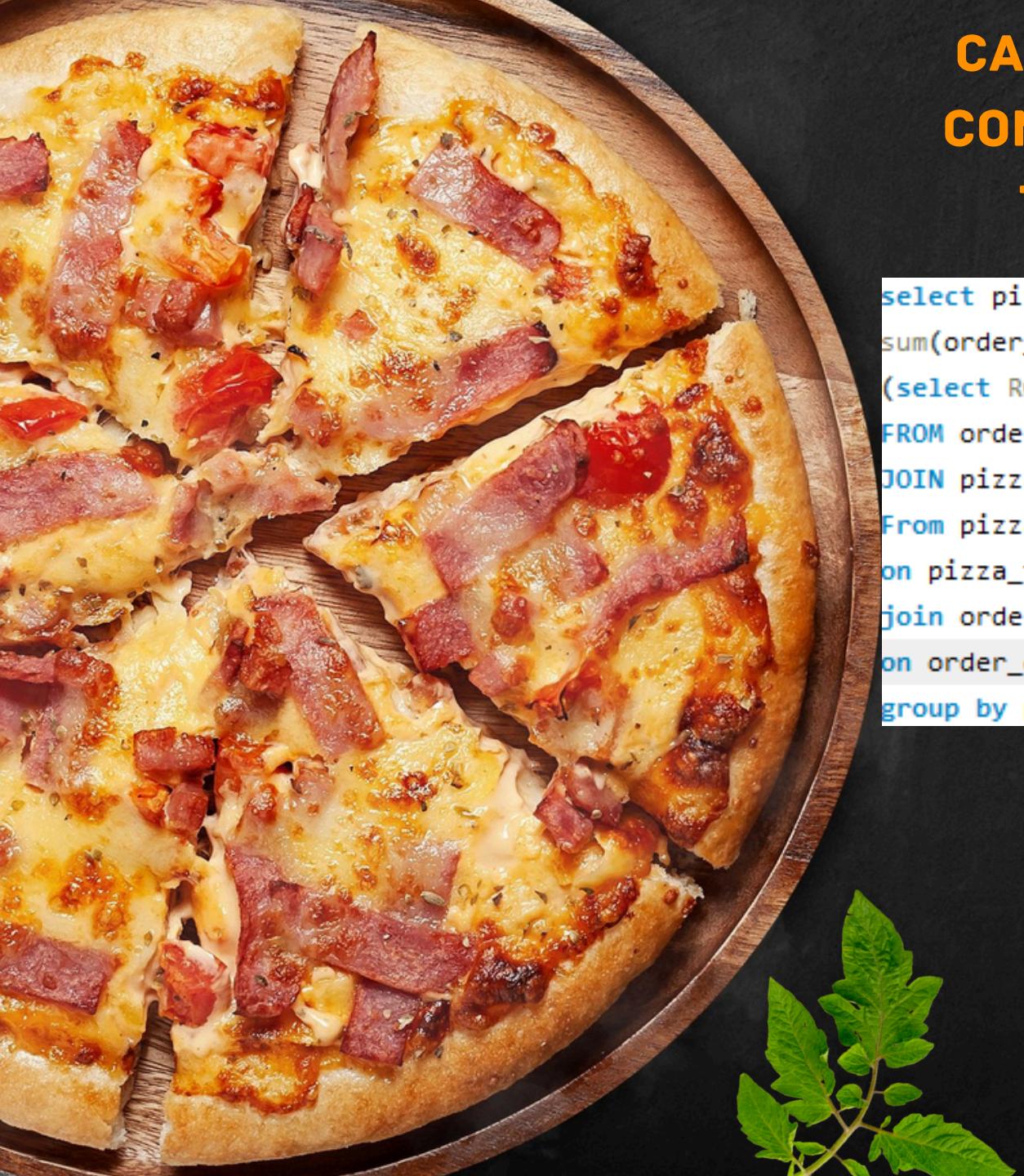


# THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```
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;
```

Result Grid |   Filter Rows:

	name	revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5



# CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```
select pizza_types.category,  
sum(order_details.quantity*pizzas.price) /  
(select ROUND(sum(order_details.quantity * pizzas.price),2) AS total_sales  
FROM order_details  
JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id) * 100 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 order by revenue desc;
```

Result Grid | Filter R

	category	revenue
1	Classic	26.9059602556
2	Supreme	25.4563112600
3	Chicken	23.9551375568
4	Veggie	23.6825909273



# ANALYZE 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;
```

Result Grid |  Filter Rows:

order_date	cum_revenue
2015-01-01	2713.85000000000
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55



# 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;
```

Result Grid		Filter Rows:
	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 Veggie Pizza	28000

A large pepperoni pizza is shown from a top-down perspective, resting on a round wooden cutting board. The pizza is cut into eight slices and is topped with melted cheese, pepperoni, and some herbs. The crust appears slightly golden and slightly irregular.

# INSIGHTS

- 1. TAILOR MENU OFFERINGS AND PROMOTIONS AROUND THE TOP 5 MOST ORDERED PIZZA TYPES TO DRIVE SALES AND CUSTOMER SATISFACTION.**
  - 2. STRATEGICALLY ADJUST PRICING FOR HIGH-VALUE ITEMS, LIKE THE HIGHEST-PRICED PIZZA, TO BALANCE PROFITABILITY AND CUSTOMER APPEAL.**
  - 3. OPTIMIZE INVENTORY MANAGEMENT BASED ON THE MOST COMMON PIZZA SIZE ORDERED TO MINIMIZE WASTE AND ENSURE AVAILABILITY.**
  - 4. UTILIZE INSIGHTS ON ORDER DISTRIBUTION BY HOUR TO STREAMLINE OPERATIONS AND ENHANCE CUSTOMER SERVICE DURING PEAK TIMES.**
  - 5. LEVERAGE DATA ON REVENUE CONTRIBUTION AND CUSTOMER PREFERENCES TO INFORM TARGETED MARKETING CAMPAIGNS AND MENU OPTIMIZATIONS FOR SUSTAINED GROWTH.**
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- A sprig of green tomato leaves with serrated edges is positioned at the bottom center of the image. Another sprig of leaves is located in the top right corner, partially overlapping the title area.