# PizzaHut Sales Analysis

-- KPI 1 --  Retrieve the total number of orders placed.

```sql
SELECT SUM(quantity) AS Total_Orders
FROM [dbo].[order_details];
```

| | Total_Orders |
|---|---|
| 1 | 49574 |

```sql
-- KPI 2 -- Calculate the total revenue
generated from pizza sales.
SELECT ROUND(SUM(quantity * price),2)
AS Total_Revenue FROM
[dbo].[order_details] AS a
JOIN [dbo].[pizzas] AS b
ON a.pizza_id=b.pizza_id;
```

| Total_Revenue |
|---|
| 1 | 817860.05 |

```sql
-- KPI 3 -- Identify the highest-priced
pizza

SELECT MAX(price) AS Highest_Price_Pizza
FROM [dbo].[pizzas];
```

| | Highest_Price_Pizza |
|---|---|
| 1 | 35.95 |

```sql
-- KPI 4 -- Identify the Second highest-
priced pizza

SELECT MAX(price) AS Highest_Price_Pizza
FROM [dbo].[pizzas]
WHERE price < (SELECT MAX(price) AS
Highest_Price_Pizza FROM
[dbo].[pizzas]);
```

| Highest_Price_Pizza |
|---|
| 25.5 |

```sql
-- KPI 5 -- Identify the most common pizza
size ordered.

SELECT TOP 1 size,SUM(quantity) AS
Total_Quantity FROM [dbo].[pizzas] AS a

JOIN [dbo].[order_details] AS b

ON a.pizza_id=b.pizza_id

GROUP BY size

ORDER BY Total_Quantity DESC;
```

| | size | Total_Quantity |
|---|---|---|
| 1 | L | 18956 |

```sql
-- KPI 6 -- List the top 5 most ordered pizza types
-- along with their quantities.
SELECT TOP 5 name,SUM(quantity) AS Total_Quantity
FROM [dbo].[pizzas] AS a
  JOIN [dbo].[order_details] AS b
  ON a.pizza_id=b.pizza_id
  JOIN [dbo].[pizza_types] AS c
  ON a.pizza_type_id=c.pizza_type_id
GROUP BY name
ORDER BY Total_Quantity DESC;
```

| | name | Total_Quantity |
|---|---|---|
| 1 | The Classic Deluxe Pizza | 2453 |
| 2 | The Barbecue Chicken Pizza | 2432 |
| 3 | The Hawaiian Pizza | 2422 |
| 4 | The Pepperoni Pizza | 2418 |
| 5 | The Thai Chicken Pizza | 2371 |

```
-- KPI 7 -- Join the necessary tables to find the
-- total quantity of each pizza category ordered.

SELECT category,SUM(quantity) AS Total_Quantity
FROM [dbo].[order_details] AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_id=b.pizza_id

JOIN [dbo].[pizza_types] AS c

ON b.pizza_type_id=c.pizza_type_id

GROUP BY category

ORDER BY Total_Quantity DESC;
```

| | category | Total_Quantity |
|---|---|---|
| 1 | Classic | 14888 |
| 2 | Supreme | 11987 |
| 3 | Veggie | 11649 |
| 4 | Chicken | 11050 |

```sql
-- KPI 8 -- Determine the distribution of orders by hour of the day

SELECT DATEPART(HOUR,time) AS Hour,COUNT(order_id)
AS Orders FROM [dbo].[orders]

GROUP BY DATEPART(HOUR,time)

ORDER BY Orders DESC;
```

|    | Hour | Orders |
|----|------|--------|
| 1  | 12   | 2520   |
| 2  | 13   | 2455   |
| 3  | 18   | 2399   |
| 4  | 17   | 2336   |
| 5  | 19   | 2009   |
| 6  | 16   | 1920   |
| 7  | 20   | 1642   |
| 8  | 14   | 1472   |
| 9  | 15   | 1468   |
| 10 | 11   | 1231   |
| 11 | 21   | 1198   |
| 12 | 22   | 663    |
| 13 | 23   | 28     |
| 14 | 10   | 8      |
| 15 | 9    | 1      |

```sql
-- KPI 9 -- Join relevant tables to find the
-- category-wise distribution of pizzas
SELECT category,SUM(quantity) AS Total_Quantity
FROM [dbo].[pizza_types] AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_type_id=b.pizza_type_id

JOIN [dbo].[order_details] AS c

ON b.pizza_id=c.pizza_id

GROUP BY category

ORDER BY Total_Quantity DESC;
```

| | category | Total_Quantity |
|---|---|---|
| 1 | Classic | 14888 |
| 2 | Supreme | 11987 |
| 3 | Veggie | 11649 |
| 4 | Chicken | 11050 |

```sql
-- KPI 10 -- Determine how many pizzas in each
category

SELECT category,COUNT(pizza_id) AS Total_pizzas
FROM [dbo].[pizza_types] AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_type_id=b.pizza_type_id

GROUP BY category

ORDER BY Total_pizzas DESC;
```

| | category | Total_pizzas |
|---|---|---|
| 1 | Veggie | 27 |
| 2 | Classic | 26 |
| 3 | Supreme | 25 |
| 4 | Chicken | 18 |

```sql
-- KPI 11 -- Group the orders by date and
--  calculate the average number of pizzas
ordered per day.
SELECT AVG(Total_Quantity) AS
Avg_Pizza_Per_Day FROM
(
SELECT SUM(quantity) AS Total_Quantity FROM
[dbo].[order_details]
JOIN [dbo].[orders]
ON
[dbo].[order_details].order_id=[dbo].[orders]
.order_id
GROUP by date) AS t;
```

| | Avg_Pizza_Per_Day |
|---|---|
| 1 | 138 |

```sql
-- KPI 12 -- Determine the top 3 most
ordered pizza types based on revenue.

SELECT TOP 3 name,SUM(quantity * price) AS
Total_Revenue FROM [dbo].[order_details] AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_id=b.pizza_id

JOIN [dbo].[pizza_types] AS c

ON c.pizza_type_id=b.pizza_type_id

GROUP BY name

ORDER BY Total_Revenue DESC;
```

| | name | Total_Revenue |
|---|---|---|
| 1 | The Thai Chicken Pizza | 43434.25 |
| 2 | The Barbecue Chicken Pizza | 42768 |
| 3 | The California Chicken Pizza | 41409.5 |

```sql
--  KPI 13 -- Calculate the percentage
contribution of each pizza type to total revenue.

SELECT category,ROUND(SUM(quantity * price)/
(SELECT ROUND(SUM(quantity * price),2) FROM
[dbo].[order_details] AS a
JOIN [dbo].[pizzas] AS b
ON a.pizza_id=b.pizza_id )* 100 ,2) AS Percentage
FROM [dbo].[order_details] AS a
JOIN [dbo].[pizzas] AS b
ON a.pizza_id=b.pizza_id
JOIN [dbo].[pizza_types] AS c
ON c.pizza_type_id=b.pizza_type_id
GROUP BY category
ORDER BY percentage DESC;
```

|   | category | Percentage |
|---|----------|------------|
| 1 | Classic  | 26.91      |
| 2 | Supreme  | 25.46      |
| 3 | Chicken  | 23.96      |
| 4 | Veggie   | 23.68      |

```sql
-- KPI 14 -- Analyze the cumulative
revenue generated over a period of time
SELECT date,SUM(Revenue) OVER (ORDER BY
date) AS Cum_Revenue FROM

(SELECT date,ROUND(SUM(quantity * price),2)
AS Revenue FROM [dbo].[order_details] AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_id=b.pizza_id

JOIN orders AS c

ON a.order_id=c.order_id

GROUP BY date) AS t;
```

| | date | Cum_Revenue |
|---|---|---|
| 1 | 2015-01-01 | 2713.85 |
| 2 | 2015-01-02 | 5445.75 |
| 3 | 2015-01-03 | 8108.15 |
| 4 | 2015-01-04 | 9863.6 |
| 5 | 2015-01-05 | 11929.55 |
| 6 | 2015-01-06 | 14358.5 |
| 7 | 2015-01-07 | 16560.7 |
| 8 | 2015-01-08 | 19399.05 |
| 9 | 2015-01-09 | 21526.4 |
| 10 | 2015-01-10 | 23990.35 |
| 11 | 2015-01-11 | 25862.65 |
| 12 | 2015-01-12 | 27781.7 |
| 13 | 2015-01-13 | 29831.3 |
| 14 | 2015-01-14 | 32358.7 |
| 15 | 2015-01-15 | 34343.5 |

```sql
-- KPI 15 -- Determine the top 3 most ordered pizza
types based on revenue for each pizza category.

SELECT name,category,Revenue FROM

(SELECT name,category,Revenue,RANK() OVER(PARTITION
BY category ORDER BY Revenue desc) AS rank FROM

(SELECT name,category,ROUND(SUM(quantity *
price),2) AS Revenue FROM [dbo].[order_details]
AS a

JOIN [dbo].[pizzas] AS b

ON a.pizza_id=b.pizza_id

JOIN [dbo].[pizza_types] AS c

ON c.pizza_type_id=b.pizza_type_id

GROUP BY category,name)AS t) AS d

WHERE rank<=3;
```

| | name | category | Revenue |
|---|---|---|---|
| 1 | The Thai Chicken Pizza | Chicken | 43434.25 |
| 2 | The Barbecue Chicken Pizza | Chicken | 42768 |
| 3 | The California Chicken Pizza | Chicken | 41409.5 |
| 4 | The Classic Deluxe Pizza | Classic | 38180.5 |
| 5 | The Hawaiian Pizza | Classic | 32273.25 |
| 6 | The Pepperoni Pizza | Classic | 30161.75 |
| 7 | The Spicy Italian Pizza | Supreme | 34831.25 |
| 8 | The Italian Supreme Pizza | Supreme | 33476.75 |
| 9 | The Sicilian Pizza | Supreme | 30940.5 |
| 10 | The Four Cheese Pizza | Veggie | 32265.7 |
| 11 | The Mexicana Pizza | Veggie | 26780.75 |
| 12 | The Five Cheese Pizza | Veggie | 26066.5 |

# Thank You !