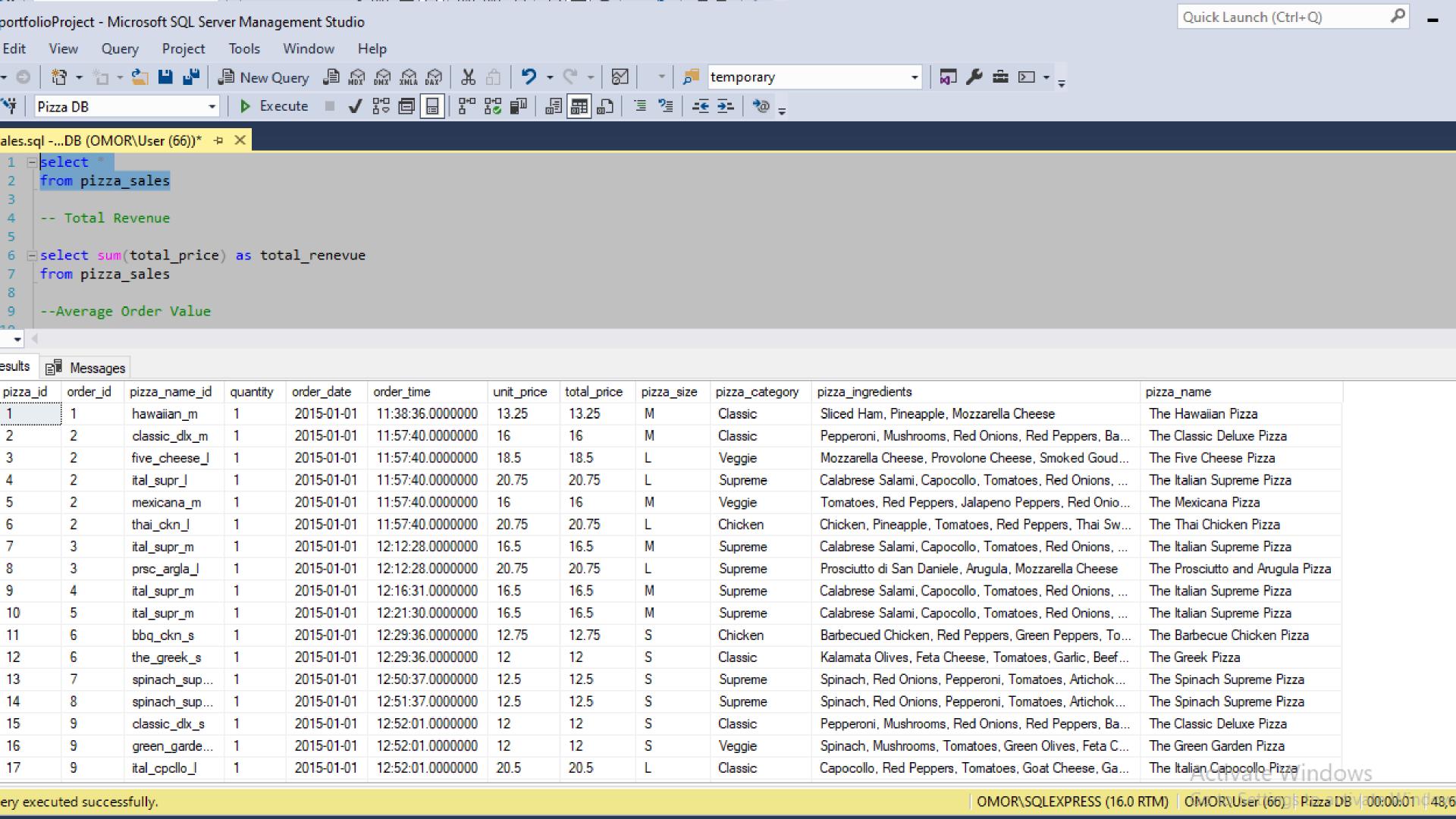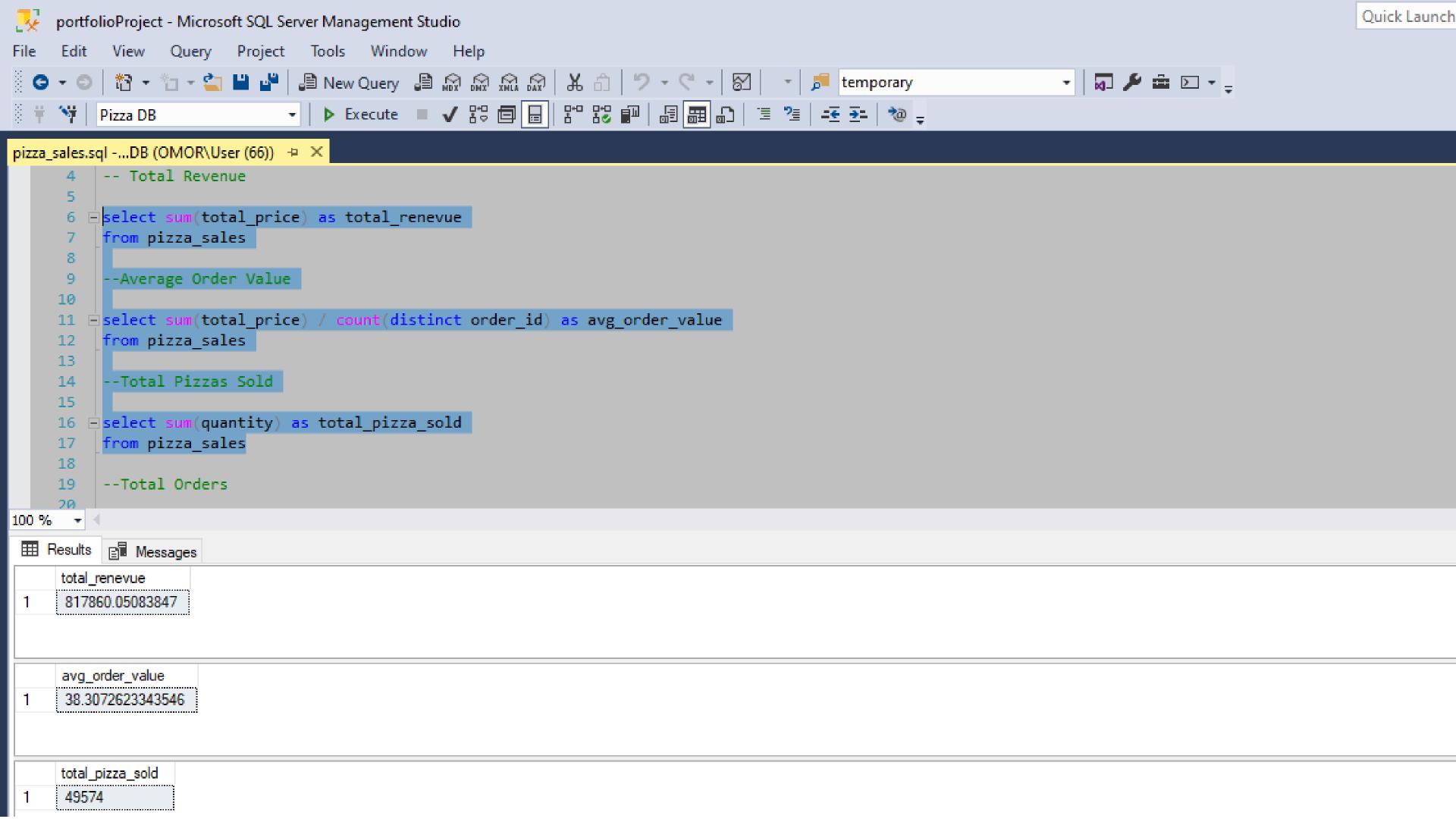# Pizza Sales Analysis By SQL query

KPI's REQUIREMENT

We need to analyze key indicators for our pizza sales data to gain insights into our business performance. Specifically, we want to calculate the following metrics:

1. **Total Revenue:** The sum of the total price of all pizza orders.

2. **Average Order Value:** The average amount spent per order, calculated by dividing the total revenue by the total number of orders.

3. **Total Pizzas Sold:** The sum of the quantities of all pizzas sold.

4. **Total Orders:** The total number of orders placed.

5. **Average Pizzas Per Order:** The average number of pizzas sold per order, calculated by plz dividing the total number of pizzas sold by the total number of orders.

6. Daily Trend for Total Orders: Need a result from SQL query for create a bar chart that displays the daily trend of total orders over a specific time period. This chart will help us identify any patterns or fluctuations in order volumes on a daily basis.

7. Hourly Trend for Total Orders: Need a result from SQL query for create a line chart that illustrates the hourly trend of total orders throughout the day. This chart will allow us to identify peak hours or periods of high order activity.

8.Percentage of Sales by Pizza Category: Need a result from SQL query for create a pie chart that shows the distribution of sales across different pizza categories. This chart will provide insights into the popularity of various pizza categories and their contribution to overall sales.

9.Percentage of Sales by Pizza Size: Need a result from SQL query for generate a pie chart that represents the percentage of sales attributed to different pizza sizes. This chart will help us understand customer preferences for pizza sizes and their impact on sales.

10. Total Pizzas Sold by Pizza Category: Need a result from SQL query for create a funnel chart that presents the total number of pizzas sold for each pizza category. This chart will allow us to compare the sales performance of different pizza categories.

11. Top 5 Best Sellers by Total Pizzas Sold: Need a result from SQL query for create a bar chart highlighting the top 5 best-selling pizzas based on the total number of pizzas sold. This chart will help us identify the most popular pizza options. Total Pizzas Sold

12. Bottom 5 Worst Sellers by Total Pizzas Sold: Need a result from SQL query for create a bar chart showcasing the bottom 5 worst-selling pizzas based on the total number of pizzas sold. This chart will enable us to identify underperforming or less popular pizza options.

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Pizza DB   ▶ Execute

ales.sql -...DB (OMOR\User (66))*

```
1   select *
2   from pizza_sales
3
4   -- Total Revenue
5
6   select sum(total_price) as total_renevue
7   from pizza_sales
8
9   --Average Order Value
```

esults | Messages

pizza_id	order_id	pizza_name_id	quantity	order_date	order_time	unit_price	total_price	pizza_size	pizza_category	pizza_ingredients	pizza_name
1	1	hawaiian_m	1	2015-01-01	11:38:36.0000000	13.25	13.25	M	Classic	Sliced Ham, Pineapple, Mozzarella Cheese	The Hawaiian Pizza
2	2	classic_dlx_m	1	2015-01-01	11:57:40.0000000	16	16	M	Classic	Pepperoni, Mushrooms, Red Onions, Red Peppers, Ba...	The Classic Deluxe Pizza
3	2	five_cheese_l	1	2015-01-01	11:57:40.0000000	18.5	18.5	L	Veggie	Mozzarella Cheese, Provolone Cheese, Smoked Goud...	The Five Cheese Pizza
4	2	ital_supr_l	1	2015-01-01	11:57:40.0000000	20.75	20.75	L	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions, ...	The Italian Supreme Pizza
5	2	mexicana_m	1	2015-01-01	11:57:40.0000000	16	16	M	Veggie	Tomatoes, Red Peppers, Jalapeno Peppers, Red Onio...	The Mexicana Pizza
6	2	thai_ckn_l	1	2015-01-01	11:57:40.0000000	20.75	20.75	L	Chicken	Chicken, Pineapple, Tomatoes, Red Peppers, Thai Sw...	The Thai Chicken Pizza
7	3	ital_supr_m	1	2015-01-01	12:12:28.0000000	16.5	16.5	M	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions, ...	The Italian Supreme Pizza
8	3	prsc_argla_l	1	2015-01-01	12:12:28.0000000	20.75	20.75	L	Supreme	Prosciutto di San Daniele, Arugula, Mozzarella Cheese	The Prosciutto and Arugula Pizza
9	4	ital_supr_m	1	2015-01-01	12:16:31.0000000	16.5	16.5	M	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions, ...	The Italian Supreme Pizza
10	5	ital_supr_m	1	2015-01-01	12:21:30.0000000	16.5	16.5	M	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions, ...	The Italian Supreme Pizza
11	6	bbq_ckn_s	1	2015-01-01	12:29:36.0000000	12.75	12.75	S	Chicken	Barbecued Chicken, Red Peppers, Green Peppers, To...	The Barbecue Chicken Pizza
12	6	the_greek_s	1	2015-01-01	12:29:36.0000000	12	12	S	Classic	Kalamata Olives, Feta Cheese, Tomatoes, Garlic, Beef...	The Greek Pizza
13	7	spinach_sup...	1	2015-01-01	12:50:37.0000000	12.5	12.5	S	Supreme	Spinach, Red Onions, Pepperoni, Tomatoes, Artichok...	The Spinach Supreme Pizza
14	8	spinach_sup...	1	2015-01-01	12:51:37.0000000	12.5	12.5	S	Supreme	Spinach, Red Onions, Pepperoni, Tomatoes, Artichok...	The Spinach Supreme Pizza
15	9	classic_dlx_s	1	2015-01-01	12:52:01.0000000	12	12	S	Classic	Pepperoni, Mushrooms, Red Onions, Red Peppers, Ba...	The Classic Deluxe Pizza
16	9	green_garde...	1	2015-01-01	12:52:01.0000000	12	12	S	Veggie	Spinach, Mushrooms, Tomatoes, Green Olives, Feta C...	The Green Garden Pizza
17	9	ital_cpcllo_l	1	2015-01-01	12:52:01.0000000	20.5	20.5	L	Classic	Capocollo, Red Peppers, Tomatoes, Goat Cheese, Ga...	The Italian Capocollo Pizza

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Pizza DB   Execute

pizza_sales.sql -...DB (OMOR\User (66))

```sql
4    -- Total Revenue
5
6    select sum(total_price) as total_renevue
7    from pizza_sales
8
9    --Average Order Value
10
11   select sum(total_price) / count(distinct order_id) as avg_order_value
12   from pizza_sales
13
14   --Total Pizzas Sold
15
16   select sum(quantity) as total_pizza_sold
17   from pizza_sales
18
19   --Total Orders
20
```

100 %

Results   Messages

	total_renevue
1	817860.05083847

	avg_order_value
1	38.307262343546

	total_pizza_sold
1	49574

```sql
--Total Orders

select count(distinct order_id) as total_order
from pizza_sales


--Average Pizzas Per Order

select sum(quantity)/ count(distinct order_id) as avg_pizza_per_order
from pizza_sales

--exact
--select cast (sum(quantity) as decimal(10,2)) / cast(count(distinct order_id) as decimal (10,2)) as avg_pizza_per_order
select cast(cast (sum(quantity) as decimal(10,2)) /
cast(count(distinct order_id) as decimal (10,2)) as decimal (10,2)) as avg_pizza_per_order
from pizza_sales
```

Results

	total_order
1	21350

	avg_pizza_per_order
1	2

	avg_pizza_per_order
1	2.32

```
36
37   --B. Daily Trend for Total Orders
38
39   --select * from pizza_sales
40   select DATENAME (dw, order_date) as order_day, count(distinct order_id) as total_orders
41   from pizza_sales
42   group by DATENAME (dw, order_date)
43
44   --C. Hourly Trend for Orders
45   --select * from pizza_sales
46   select DATEPART(Hour, order_time) as order_hours, count(distinct order_id) as total_orders
47   from pizza_sales
48   group by DATEPART(Hour, order_time)
49   order by count(distinct order_id)
50
51
52
```

	order_day	total_orders
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

pizza_sales.sql -...DB (OMOR\User (66))*

```
42      group by DATENAME (dw, order_date)
43
44    --C. Hourly Trend for Orders
45      --select * from pizza_sales
46    select DATEPART(Hour, order_time) as order_hours, count(distinct order_id) as total_orders
47      from pizza_sales
48      group by DATEPART(Hour, order_time)
49      order by count(distinct order_id)
50
51
52
53
```

100 %

Results　　Messages

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

```
54  ------------------------------------------------------------------
55  ------------------------------------------------------------------
56  --D. % of Sales by Pizza Category
57
58  select * from pizza_sales
59
60  --select pizza_category, sum(total_price) * 100 / (select sum(total_price) from pizza_sales) as percantage_of_sale_per_hour
61  select pizza_category, sum(total_price) as total_sales, sum(total_price) * 100 /
62  (select sum(total_price) from pizza_sales) as percantage_of_sale_per_hour
63  from pizza_sales
64  group by pizza_category
65
66
67  --where month(order_date)=1
68
69  ------------------------------------------------------------------
70
71  --C. % of Sales by Pizza Size
72
73  select * from pizza_sales
74
```

	pizza_category	total_sales	percantage_of_sale_per_hour
1	Classic	220053.100021362	26.9059602306976
2	Chicken	195919.5	23.9551375322885
3	Veggie	193690.451004028	23.6825910258677
4	Supreme	208196.99981308	25.4563112111462

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Pizza DB   ▷ Execute

pizza_sales.sql -...DB (OMOR\User (66))*   ╳

```
90
91   --------------------------------------------------------------
92   --------------------------------------------------------------
93   --F. Total Pizzas Sold by Pizza Category
94   select * from pizza_sales
95
96   select pizza_category, sum(quantity) as total_pizza_sold_bycategory
97   from pizza_sales
98   group by pizza_category
99   --------------------------------------------------------------
100  --------------------------------------------------------------
101
102  --G. Top 5 Best Sellers by Total Pizzas Sold
103
104  select * from pizza_sales
105  select pizza_name, sum(quantity) as total_pizza_solds
106  --select top 5 pizza_name, sum(quantity) as total_pizza_solds
107  from pizza_sales
108  group by pizza_name
109  order by sum(quantity) desc
110
```

100 %

▦ Results   ▦ Messages

	pizza_category	total_pizza_sold_bycategory
1	Classic	14888
2	Chicken	11050
3	Veggie	11649
4	Supreme	11987

```sql
--G. Top 10 Best Sellers by Total Pizzas Sold


--select * from pizza_sales
select top 10 pizza_name, sum(quantity) as total_pizza_solds
--select top 10 pizza_name, sum(quantity) as total_pizza_solds
from pizza_sales
group by pizza_name
order by sum(quantity) desc


-----------------------------------------------------------
-----------------------------------------------------------

--H. Bottom 5 Best Sellers by Total Pizzas Sold

select * from pizza_sales
```

100 %

Results | **Messages**

	pizza_name	total_pizza_solds
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
6	The California Chicken Pizza	2370
7	The Sicilian Pizza	1938
8	The Spicy Italian Pizza	1924
9	The Southwest Chicken Piz...	1917
10	The Big Meat Pizza	1914

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```sql
--H. Bottom 5 Best Sellers by Total Pizzas Sold

select * from pizza_sales
--select pizza_name, sum(quantity) as total_pizza_solds
select top 5 pizza_name, sum(quantity) as total_pizza_solds
from pizza_sales
--for month basis
where month (order_date) = 1
group by pizza_name
order by sum(quantity) asc
```

Results   Messages

pizza_name	total_pizza_solds
The Brie Carre Pizza	35
The Calabrese Pizza	67
The Mediterranean Pizza	68
The Green Garden Pizza	75
The Chicken Pesto Pizza	77

Thank You

Presented by Omot Faruk Bhuiyan