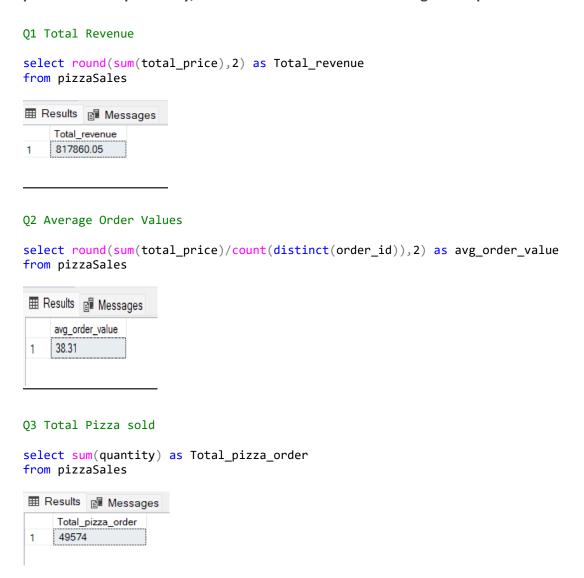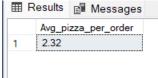# Pizza Sales Analysis
SQL Project

Database : Pizza
Tools: SQL Server

PROBLEM STATEMENT
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 some queries:

Q1 Total Revenue

```sql
select round(sum(total_price),2) as Total_revenue
from pizzaSales
```

	Total_revenue
1	817860.05

Q2 Average Order Values

```sql
select round(sum(total_price)/count(distinct(order_id)),2) as avg_order_value
from pizzaSales
```

	avg_order_value
1	38.31

Q3 Total Pizza sold

```sql
select sum(quantity) as Total_pizza_order
from pizzaSales
```

	Total_pizza_order
1	49574

Q4 Total Orders

```sql
select count(distinct(order_id)) as Total_orders
from pizzaSales
```

Results | Messages

	Total_orders
1	21350

Q5 Avg pizza_per_order

```sql
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 pizzaSales
```

Results | Messages

	Avg_pizza_per_order
1	2.32

Q6 Daily Trend for Total Orders

```sql
Select Datename(DW,order_date) as order_day,
count(distinct(order_id)) as  total_Orders
from pizzaSales
group by datename(dw,order_date)
order by total_Orders
```

Results | Messages

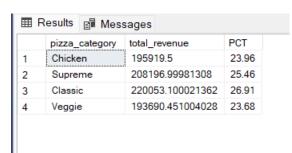|	order_day	total_Orders
1	Sunday	2624
2	Monday	2794
3	Tuesday	2973
4	Wednesday	3024
5	Saturday	3158
6	Thursday	3239
7	Friday	3538

Q7. Monthly Trend for Orders

```sql
select datename(Month, order_date) as month_name,
count(distinct(order_id)) as Total_month_orders
from pizzaSales
group by datename(Month, order_date)
order by Total_month_orders
```

Results | Messages

	month_name	Total_month_orders
1	October	1646
2	September	1661
3	December	1680
4	February	1685
5	June	1773
6	November	1792
7	April	1799
8	March	1840
9	August	1841
10	January	1845
11	May	1853
12	July	1935

Q8. % of Sales by Category

```sql
select pizza_category,sum(total_price) as total_revenue,
cast(sum(total_price)*100 / (select sum(total_price) from pizzaSales)
as decimal(10,2))
as PCT
from pizzaSales
group by pizza_category

--or

select pizza_category,sum(total_price) as total_revenue,
round(sum(total_price)*100 / (select sum(total_price) from pizzaSales),2)
as PCT
from pizzaSales
group by pizza_category
```

Results | Messages

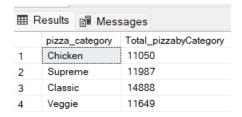|	pizza_category	total_revenue	PCT
1	Chicken	195919.5	23.96
2	Supreme	208196.99981308	25.46
3	Classic	220053.100021362	26.91
4	Veggie	193690.451004028	23.68

Q9 % of Sales by Pizza Size

```sql
select pizza_size, cast(sum(total_price) as decimal(10,2)) as total_revenue,
round(sum(total_price)*100 / (select sum(total_price) from pizzaSales),2)
as PCT
from pizzaSales
group by pizza_size
order by PCT desc
```

	pizza_size	total_revenue	PCT
1	L	375318.70	45.89
2	M	249382.25	30.49
3	S	178076.50	21.77
4	XL	14076.00	1.72
5	XXL	1006.60	0.12

Q10 Total Pizzas sold by Pizza Category

```
select pizza_category, sum(quantity) as Total_pizzabyCategory
from pizzaSales
group by pizza_category
```

▦ Results ▥ Messages

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

--Q Total Pizza sold by pizza category in month June

```
select pizza_category, sum(quantity) as Total_pizzabyCategory
from pizzaSales
where month(order_date)=6
group by pizza_category
```

▦ Results ▥ Messages

	pizza_category	Total_pizzabyCategory
1	Chicken	910
2	Supreme	1040
3	Classic	1199
4	Veggie	958

Q11 Top 5 Pizza by Revenue
by window functon

```
select top 5 pizza_name,
       sum(total_price) as total_revenue,
       ROW_NUMBER() over (order by sum(total_price) desc) as pizza_revenue_rank
from pizzaSales
group by pizza_name
```

or
By comman table expression(cte)

```sql
with Total_revenue as
(
select pizza_name,
        sum(total_price) as total_revenue
from pizzaSales
group by pizza_name
)
select top 5 total_revenue ,pizza_name
from Total_revenue
order by total_revenue desc
```

or

```sql
select Top 5 pizza_name, sum(total_price) as Total_Revenue
from pizzaSales
group by pizza_name
order by Total_Revenue Desc
```

	pizza_name	total_revenue	pizza_revenue_rank
1	The Thai Chicken Pizza	43434.25	1
2	The Barbecue Chicken Pizza	42768	2
3	The California Chicken Pizza	41409.5	3
4	The Classic Deluxe Pizza	38180.5	4
5	The Spicy Italian Pizza	34831.25	5

Q12. Bottom 5 pizza by Revenue

```sql
select Top 5 pizza_name, sum(total_price) as Total_Revenue
from pizzaSales
group by pizza_name
order by Total_Revenue asc
```

	pizza_name	Total_Revenue
1	The Brie Carre Pizza	11588.4998130798
2	The Green Garden Pizza	13955.75
3	The Spinach Supreme Pizza	15277.75
4	The Mediterranean Pizza	15360.5
5	The Spinach Pesto Pizza	15596

Q13 Top 5 Pizza by Total Orders

```sql
select top 5 pizza_name, count(distinct order_id) as Total_Orders
from pizzaSales
group by pizza_name
order by Total_Orders desc
```

	pizza_name	Total_Orders
1	The Classic Deluxe Pizza	2329
2	The Hawaiian Pizza	2280
3	The Pepperoni Pizza	2278
4	The Barbecue Chicken Pizza	2273
5	The Thai Chicken Pizza	2225

```
--Q14 Bottom 5 Pizza by Total Orders

select top 5 pizza_name, count(distinct order_id) as Total_Orders
from pizzaSales
group by pizza_name
order by Total_Orders asc
```

	pizza_name	Total_Orders
1	The Brie Carre Pizza	480
2	The Mediterranean Pizza	912
3	The Calabrese Pizza	918
4	The Spinach Supreme Pizza	918
5	The Chicken Pesto Pizza	938

```
Q15 Top 5 pizza by Quantity

select Top 5 pizza_name, sum(quantity) as total_pizza_sold
from pizzaSales
group by pizza_name
order by Total_pizza_sold desc
```

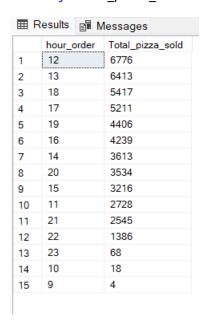|	pizza_name	total_pizza_sold
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

```
Q16 Bottom 5 pizza by Quantity

select Top 5 pizza_name, sum(quantity) as total_pizza_sold
from pizzaSales
group by pizza_name
order by Total_pizza_sold asc
```

	pizza_name	total_pizza_sold
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppressata Pizza	961

Q17 Hourly Trend for Total pizza sold

```sql
select datepart(hour, order_time) as hour_order,
sum(quantity) as Total_pizza_sold
from pizzaSales
group by datepart(hour, order_time)
order by Total_pizza_sold desc
```

	hour_order	Total_pizza_sold
1	12	6776
2	13	6413
3	18	5417
4	17	5211
5	19	4406
6	16	4239
7	14	3613
8	20	3534
9	15	3216
10	11	2728
11	21	2545
12	22	1386
13	23	68
14	10	18
15	9	4

Q18 weekly Trend for Total Orders

```sql
select datepart(ISO_WEEK, order_date) as week_number,
year(order_date) as Order_year,
count(distinct order_id) as Total_orders
from pizzaSales
group by datepart(ISO_WEEK, order_date), year(order_date)
```

Results | **Messages**

	week_number	Order_year	Total_orders
1	14	2015	433
2	28	2015	417
3	2	2015	427
4	16	2015	414
5	33	2015	435
6	47	2015	392
7	21	2015	414
8	35	2015	394
9	52	2015	298
10	9	2015	409
11	40	2015	433
12	37	2015	435
13	11	2015	404
14	51	2015	430
15	25	2015	410
16	42	2015	386
17	13	2015	427
18	30	2015	433
19	44	2015	371