SQL CASE STUDY

SALES REPORT

BY

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RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

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

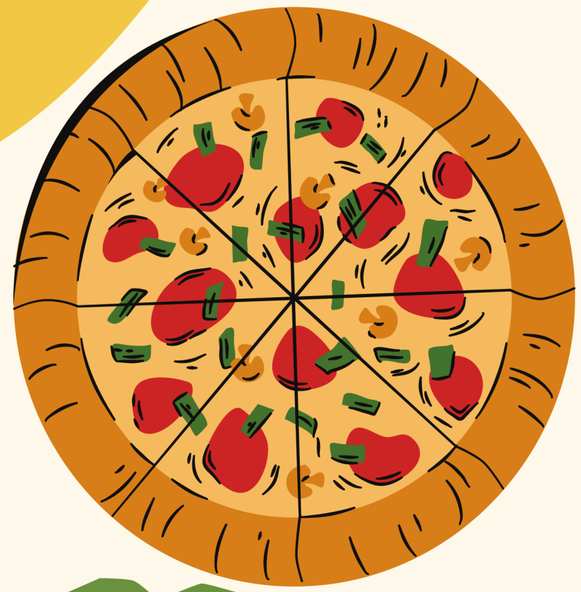
Row	total_orders
1	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT ROUND(SUM(p.price * od.quantity),2) as total_revenue
FROM pizza_hut.pizzas p
JOIN pizza_hut.order_details od
ON p.pizza_id=od.pizza_id;
```

Row	total_revenue
1	817860.05

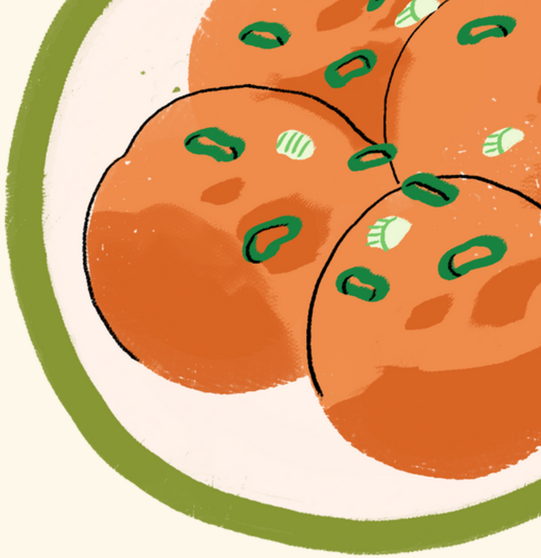
IDENTIFY THE HIGHEST-PRICED PIZZA.



```
SELECT pizza_id,
       MAX(price) as highest_price_pizza
FROM pizza_hut.pizzas
GROUP BY pizza_id
ORDER BY 2 desc
LIMIT 1;
```

Row	pizza_id	highest_price_pizza
1	the_greek_xxl	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.



```
SELECT p.size,
       COUNT(od.quantity) as most_ordered_qty
FROM pizza_hut.pizzas p
JOIN pizza_hut.order_details od
ON p.pizza_id=od.pizza_id
GROUP BY 1
ORDER BY 2 DESC;
```

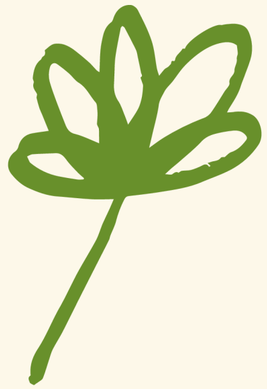
Row	size	most_ordered_qty
1	L	18526
2	M	15385
3	S	14137
4	XL	544
5	XXL	28

LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

```
SELECT p.pizza_type_id,
       COUNT(od.quantity) as most_ordered_qty
FROM pizza_hut.pizzas p
JOIN pizza_hut.order_details od
ON p.pizza_id=od.pizza_id
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5;
```

Row	pizza_type_id	most_ordered_qty
1	classic_dlx	2416
2	bbq_ckn	2372
3	hawaiian	2370
4	pepperoni	2369
5	thai_ckn	2315

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



```sql
SELECT pt.category,
       SUM(od.quantity) as total_qty
FROM pizza_hut.pizza_types pt
JOIN pizza_hut.pizzas p
ON p.pizza_type_id=pt.pizza_type_id
JOIN pizza_hut.order_details od
ON p.pizza_id=od.pizza_id
GROUP BY 1
ORDER BY 2 DESC;
```

Row	pizza_type_id	most_ordered_qty
1	classic_dlx	2416
2	bbq_ckn	2372
3	hawaiian	2370
4	pepperoni	2369
5	thai_ckn	2315

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```
SELECT EXTRACT(HOUR FROM time) as hr,COUNT(order_id) as no_of_orders
FROM pizza_hut.orders
GROUP BY 1;
```

HR	NO_OF_ORDERS
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 pt.category,
       count(od.order_id) as no_of_orders
FROM pizza_hut.pizza_types pt
JOIN pizza_hut.pizzas p
ON pt.pizza_type_id=p.pizza_type_id
JOIN pizza_hut.order_details od
ON od.pizza_id=p.pizza_id
GROUP BY 1;
```

Row	category	no_of_orders
1	Chicken	10815
2	Classic	14579
3	Supreme	11777
4	Veggie	11449

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

```
SELECT ROUND(AVG(total_qty),0) as avg_no_of_pizzas_ordered_per_day
FROM
(
 SELECT o.date,
        sum(od.quantity) as total_qty
 FROM pizza_hut.orders o
 JOIN pizza_hut.order_details od
 ON o.order_id=od.order_id
 GROUP BY 1
) as qty_by_date;
```

Row	avg_no_of_pizzas_ordered_per_day
1	138.0

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```
SELECT p.pizza_id,
       pt.name,
       SUM(p.price*od.quantity) as r
FROM pizza_hut.pizzas p
JOIN pizza_hut.order_details od
ON p.pizza_id=od.pizza_id
JOIN pizza_hut.pizza_types pt
ON p.pizza_type_id=pt.pizza_type_id
GROUP BY 1,2
ORDER BY 2 DESC
LIMIT 3;
```

Row	pizza_id	name	revenue
1	veggie_veg_l	The Vegetables + Vegetables P...	8646.75
2	veggie_veg_m	The Vegetables + Vegetables P...	10160.0
3	veggie_veg_s	The Vegetables + Vegetables P...	5568.0

CALCULATE THE PERCENTAGE CONTRIBUTIO CH PIZZA TYPE TO TOTAL REVENUE.

```sql
WITH total_revenue AS (
  SELECT SUM(p.price * od.quantity) AS total_revenue
  FROM pizza_hut.pizzas p
  JOIN pizza_hut.order_details od
  ON p.pizza_id = od.pizza_id
)

SELECT pt.category,
       ROUND(SUM(p.price * od.quantity) / total_revenue.total_revenue * 100, 2) AS percentage_contribution_revenue
FROM pizza_hut.pizzas p
JOIN pizza_hut.order_details od
ON p.pizza_id = od.pizza_id
JOIN pizza_hut.pizza_types pt
ON p.pizza_type_id = pt.pizza_type_id
JOIN total_revenue
ON TRUE
GROUP BY pt.category, total_revenue.total_revenue
ORDER BY percentage_contribution_revenue DESC;
```

Row	category	percentage_contribution_revenue
1	Classic	26.91
2	Supreme	25.46
3	Chicken	23.96
4	Veggie	23.68

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.

```sql
SELECT order_date,
       total_revenue,
       SUM(total_revenue) OVER(ORDER BY order_date) as cum_revenue
       FROM
        (SELECT o.date as order_date,
                ROUND(SUM(p.price * od.quantity),2) as total_revenue
        FROM pizza_hut.order_details od
        JOIN pizza_hut.pizzas p
        ON p.pizza_id=od.pizza_id
        JOIN pizza_hut.orders o
        ON o.order_id=od.order_id
        GROUP BY 1
        ORDER BY 2);
```

Row	order_date	total_revenue	cum_revenue
1	2015-01-01	2713.85	2713.85
2	2015-01-02	2731.9	5445.75
3	2015-01-03	2662.4	8108.15
4	2015-01-04	1755.45	9863.6
5	2015-01-05	2065.95	11929.55
6	2015-01-06	2428.95	14358.5
7	2015-01-07	2202.2	16560.7
8	2015-01-08	2838.35	19399.05
9	2015-01-09	2127.35	21526.39999999…

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```sql
SELECT category,
       total_revenue,
       rnk
FROM
    (SELECT category,
            total_revenue,
            RANK() OVER(PARTITION BY CATEGORY ORDER BY total_revenue DESC) as rnk
    FROM
      (SELECT pt.name as name,
              pt.category as category,
              ROUND(SUM(p.price * od.quantity),2) as total_revenue
              FROM pizza_hut.order_details od
              JOIN pizza_hut.pizzas p
              ON p.pizza_id=od.pizza_id
              JOIN pizza_hut.pizza_types pt
              ON p.pizza_type_id=pt.pizza_type_id
              GROUP BY 1,2
              ORDER BY 3 DESC) as a)
WHERE rnk<=3;
```

CATEGORY	TOTAL_REVENUE	RNK
CHICKEN	43434.25	1
CHICKEN	42768.0	2
CHICKEN	41409.5	3
VEGGIE	32265.7	1
VEGGIE	26780.75	2
VEGGIE	26066.5	3
CLASSIC	38180.5	1
CLASSIC	32273.25	2
CLASSIC	30161.75	3
SUPREME	34831.25	1
SUPREME	33476.75	2
SUPREME	30940.5	3