PIZZA SALES ANALYSIS USING SQL

IMPORT THE CSV FILES INTO MYSQL SERVER FOR ANALYSIS : LINK IN DESCRIPTION

Table: orders

Columns:

order_id	int PK
order_date	date
order_time	time

Table: orders_details

Columns:

order_details_id	int PK
order_id	int
pizza_id	text
quantity	int

Table: pizzas

Columns:

pizza_id	text
pizza_type_id	text
size	text
price	double

Table: pizza_types

Columns:

pizza_type_id	text
name	text
category	text
ingredients	text

NOTE : TABLES FOR REFERENCE

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

```sql
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders;
```

Result Grid

	total_orders
▶	21350

REFER TO COLUMNS FROM A SPECIFIC TABLE FOR A BETTER UNDERSTANDING , REFER SLIDE-2

CALCULATE THE TOTAL REVENUE GENERATED FROM THE PIZZA SALES

```sql
SELECT
    ROUND(SUM(orders_details.quantity * pizzas.price),
            2) AS total_revenue
FROM
    orders_details
        JOIN
    pizzas ON pizzas.pizza_id = orders_details.pizza_id;
```

Result Grid

	total_revenue
▶	817860.05

NOTE : USE ROUND FUNCTION IN ORDER TO DECREASE THE DECIMAL PLACES TO 2

IDENTITY THE HIGHEST PRICED PIZZA

```sql
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY price DESC
LIMIT 1;
```

Result Grid | Filter Rows:

	name	price
▶	The Greek Pizza	35.95

IDENTITY THE MOST COMMON PIZZA SIZE

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

Result Grid

size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28

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

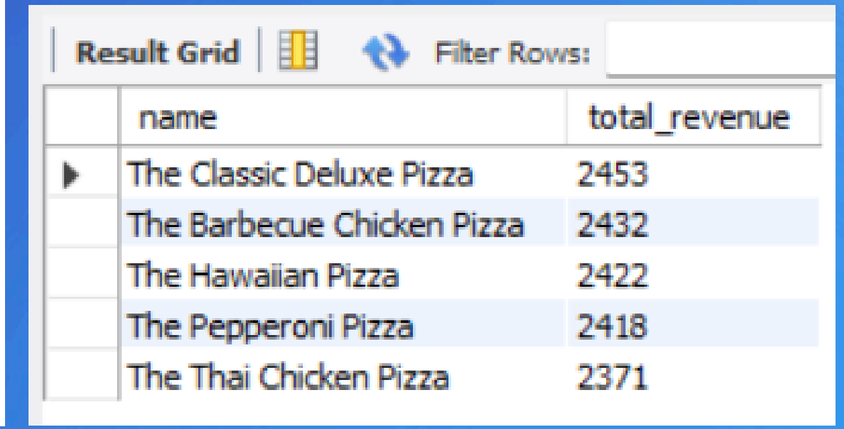
```sql
SELECT
    pizza_types.name, SUM(orders_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 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

```sql
SELECT
    pizza_types.name,
    SUM(orders_details.quantity) AS total_revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY total_revenue DESC
LIMIT 5;
```



Result Grid | Filter Rows:

name	total_revenue
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

```sql
SELECT
    HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

Result Grid | Filte

hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336

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

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

Result Grid | Filter Rov

category	COUNT(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

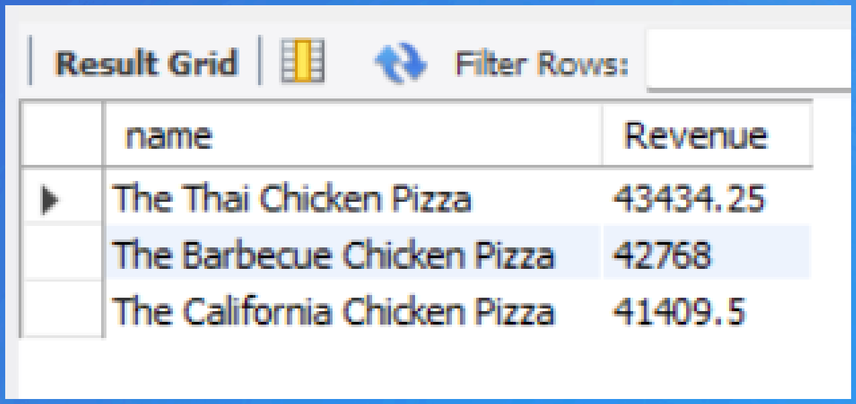
```sql
SELECT
    ROUND(AVG(quantity_new), 0)
FROM
    (SELECT
        orders.order_date,
            SUM(orders_details.quantity) AS quantity_new
    FROM
        orders
    JOIN orders_details ON orders.order_id = orders_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

Result Grid | Filter Rows:

	ROUND(AVG(quantity_new), 0)
▶	138

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```sql
SELECT
    pizza_types.name,
    SUM(orders_details.quantity * pizzas.price) AS Revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY Revenue DESC
LIMIT 3;
```



name	Revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```sql
SELECT
    pizza_types.category,
    ROUND(SUM(orders_details.quantity * pizzas.price) / (SELECT
                    ROUND(SUM(orders_details.quantity * pizzas.price),
                                2) AS total_revenue
                FROM
                    orders_details
                        JOIN
                    pizzas ON pizzas.pizza_id = orders_details.pizza_id) * 100,
            2) AS Revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY Revenue DESC;
```

Result Grid | Filter R

	category	Revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

```sql
SELECT order_date,
       sum(Revenue) over(
                         ORDER BY order_date) AS cum_sales
FROM
  (SELECT orders.order_date,
          SUM(orders_details.quantity * pizzas.price) AS Revenue
   FROM orders_details
   JOIN pizzas ON orders_details.pizza_id= pizzas.pizza_id
   JOIN orders ON orders.order_id = orders_details.order_id
   GROUP BY orders.order_date) AS sales;
```

Result Grid | Filter Rows:

order_date	cum_sales
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7

Result 44

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

```sql
SELECT category,
       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(orders_details.quantity * pizzas.price) AS Revenue
      FROM pizza_types
      JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
      JOIN orders_details ON orders_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:

category	name	revenue
Chicken	The Thai Chicken Pizza	43434.25
Chicken	The Barbecue Chicken Pizza	42768
Chicken	The California Chicken Pizza	41409.5
Classic	The Classic Deluxe Pizza	38180.5
Classic	The Hawaiian Pizza	32273.25
Classic	The Pepperoni Pizza	30161.75
Supreme	The Spicy Italian Pizza	34831.25

Result 45

THANK YOU !!