**Restaurant Order Analysis Report**

A quarter's worth of orders from a fictitious restaurant serving international cuisine, including the date and time of each order, the items ordered, and additional details on the type, name and price of the items.

The report is divided into 3 parts. Exploring Menu Table, Exploring Orders Table, Analysing Customer Behaviour

Below is a description of the table:

**menu\_items Table**

| **Column** | **Definition** | **Data Type** |
| --- | --- | --- |
| Menu\_item\_id | Unique ID of a menu item | Int |
| Item\_name | Code Name of a menu item | varchar |
| category | Category or type of cuisine of the menu item | varchar |
| price | Price of the menu item (US Dollars $) | float |

**order\_details Table**

| **Column** | **Definition** | **Data Type** |
| --- | --- | --- |
| order\_details\_id | Unique ID of an item in an order | Int |
| order\_id | ID of an order | int |
| order\_date | Date an order was put in (MM/DD/YY) | varchar |
| order\_time  item\_id | Time an order was put in (HH:MM:SS AM/PM)  Matches the menu\_item\_id in the menu\_items table | varchar  int |

**Exploring the Menu Table**

**Find the number of items on the menu**

SELECT COUNT(\*)

FROM menu\_items;



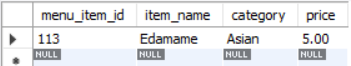
**What are the least and most expensive items on the menu?**

SELECT \*

FROM menu\_items

ORDER BY price

LIMIT 1;



SELECT \*

FROM menu\_items

ORDER BY price DESC

LIMIT 1;

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**How many Italian dishes are on the menu?**

SELECT COUNT(\*) AS No\_of\_Italian\_dishes

FROM menu\_items

WHERE category = 'Italian';

A close up of a computer screen

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**What are the least and most expensive Italian dishes on the menu?**

SELECT \*

FROM menu\_items

WHERE category = 'Italian'

ORDER BY price

LIMIT 1;

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SELECT \* FROM menu\_items

WHERE category = 'Italian'

ORDER BY price DESC

LIMIT 1;

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**How many dishes are in each category**

SELECT category, COUNT(\*) AS No\_of\_dishes

FROM menu\_items

GROUP BY category;

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**What is the average dish price within each category?**

SELECT category, AVG(price) as Average\_price

FROM menu\_items

GROUP BY category;

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**Exploring the Orders Table**

**What is the date range of the table?**

SELECT MIN(order\_date) AS Start\_date, MAX(order\_date) AS End\_date

FROM order\_details;



**How many orders were made within this date range?**

SELECT COUNT(DISTINCT order\_id)

FROM order\_details;

A close-up of a computer screen

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**How many items were ordered within this date range?**

SELECT COUNT(\*)

FROM order\_details;

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**Which orders had the most number of items?**

SELECT order\_id, COUNT(item\_id) AS no\_of\_items

FROM order\_details

GROUP BY order\_id

ORDER BY no\_of\_items DESC;

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and so on

**How many orders had more than n items? (10 in this case)**

SELECT COUNT(\*) FROM

(SELECT order\_id, COUNT(item\_id) AS num\_items

FROM order\_details

GROUP BY order\_id

HAVING num\_items > 10) as No\_of\_orders;

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**Analysing Customer Behaviour**

**What were the least and most ordered items? What categories were they in?**

SELECT item\_name, COUNT(order\_details\_id) AS no\_of\_purchases

FROM order\_details od LEFT JOIN menu\_items mi

ON od.item\_id = mi.menu\_item\_id

GROUP BY item\_name

LIMIT 1;



SELECT item\_name, COUNT(order\_details\_id) AS no\_of\_purchases

FROM order\_details od LEFT JOIN menu\_items mi

ON od.item\_id = mi.menu\_item\_id

GROUP BY item\_name

ORDER BY no\_of\_purchases

LIMIT 1;

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**What were the top 5 orders that spent the most money?**

SELECT order\_id, SUM(price) AS total\_spend

FROM order\_details od LEFT JOIN menu\_items mi

ON od.item\_id = mi.menu\_item\_id

GROUP BY order\_id

ORDER BY total\_spend DESC

LIMIT 5;

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**View the details of the top 5 highest spend orders**

SELECT order\_id, SUM(price) AS total\_spend

FROM order\_details od LEFT JOIN menu\_items mi

ON od.item\_id = mi.menu\_item\_id

GROUP BY order\_id

ORDER BY total\_spend DESC

LIMIT 5;

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**View the details of the highest spend order. Which specific items were purchased?**

SELECT category, COUNT(item\_id) AS num\_items

FROM order\_details od LEFT JOIN menu\_items mi

ON od.item\_id = mi.menu\_item\_id

WHERE order\_id IN (440, 2075, 1957, 330, 2675)

GROUP BY category;

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**Github Link:** https://github.com/0waisAli