

## Dataset used

<https://mavenanalytics.io/data-playground?search=restaurant%20orders>

There are two CSV files in this dataset, one containing order details and the other containing menu item details. We want to analyze both tables to understand the restaurant's order patterns.

## Understanding menu items table

1. The least expensive item on the menu is 'Edamame' and the most expensive item is 'Shrimp Scampi'.

```
7 • SELECT * FROM menu_items
8   order by price;
```

Result Grid

menu_item_id	item_name	category	price
113	Edamame	Asian	5.00
105	Mac & Cheese	American	7.00
106	French Fries	American	7.00
122	Chips & Salsa	Mexican	7.00
103	Hot Dog	American	9.00
114	Potstickers	Asian	9.00

```
10 • SELECT * FROM menu_items
11   order by price desc;
```

Result Grid

menu item id	item name	category	price
130	Shrimp Scampi	Italian	19.95
109	Korean Beet Bowl	Asian	17.95
110	Pork Ramen	Asian	17.95
125	Spaghetti & Meatballs	Italian	17.95
127	Meat Lasagna	Italian	17.95
131	Chicken Parmesan	Italian	17.95

2. The average dish price in each category is different. Italian is the most expensive cuisine.

```
28 • SELECT category, AVG(price) AS average_price
29   FROM menu_items
30   GROUP BY category;
```

Result Grid

category	average_price
American	10.066667
Asian	13.475000
Mexican	11.800000
Italian	16.750000

3. The Italian and Mexican cuisines have the most items on the menu.

```

24 • SELECT category, COUNT(menu_item_id) AS num_of_dishes
25 FROM menu_items
26 GROUP BY category;
27 -- 7 What is the average dish price in each category?

```

category	num_of_dishes
American	6
Asian	8
Mexican	9
Italian	9

## Understanding order details table

1. The orders with the greatest quantity of items are selected, with a maximum of 14 items.

```

19 • SELECT order_id, COUNT(item_id) as num_of_items
20 FROM order_details
21 GROUP BY order_id
22 ORDER BY num_of_items DESC;
23

```

order_id	num_of_items
4305	14
3473	14
1957	14
330	14
440	14
443	14

2. Orders that have more than 12 items are considered big orders. The number of big orders in the data is 20.

```

25 • SELECT COUNT(*) FROM
26 (SELECT order_id, COUNT(item_id) as num_of_items
27 FROM order_details
28 GROUP BY order_id
29 HAVING num_of_items > 12) AS NUM_ITEMS_MORETHAN12;

```

COUNT(*)
20

## Getting insights from both tables

1. The most popular item on the menu is 'Hamburger'. It is in American cuisine.

```

8 SELECT
9     FROM order_details od LEFT JOIN menu_items mi
10     ON od.item_id = mi.menu_item_id;
11 • SELECT item_name, category, COUNT(order_details_id) AS num_of_items_purchased
12     FROM order_details od LEFT JOIN menu_items mi

```

item_name	category	num_of_items_purchased
Hamburger	American	622
Edamame	Asian	620
Korean Beef Bowl	Asian	588
Cheeseburger	American	583
French Fries	American	571
Tofu Pad Thai	Asian	562

2. We find the top 5 highest spend orders and try to find out what they ordered. We find that Italian is the most popular cuisine in those orders.

category	num_items
Mexican	2
American	2
Italian	8
Asian	2

order_id	category	num_items
440	Italian	8
440	Asian	2
1957	Asian	3
1957	American	3
1957	Italian	5
1957	Mexican	3

## Results

1. Despite being the most expensive cuisine, Italian dishes are consistently ordered by those who enjoy indulging in high-quality food, making it a necessary addition to the menu.
2. Hamburgers are the most popular choice among all other orders, it is important to keep them on the menu.