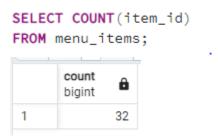
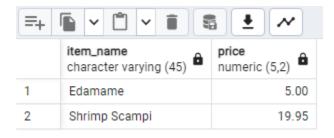
RESTAURANT ORDER ANALYSIS WITH SQL

Q1. View the menu_items table and write a query to find the number of items on the menu



Q2. What are the least and most expensive items on the menu?

```
SELECT item_name,price
FROM menu_items
WHERE price = (SELECT MIN(price) AS least_expensive_item FROM menu_items)
OR price = (select max(price)As most_expensive_item from menu_items)
ORDER BY price ASC;
```



Q3. How many Italian dishes are on the menu? What are the least and most expensive Italian dishes on the menu?

```
SELECT
    count(item_id) AS total_italian_dishes,
    min(price) as least_expensive_italian_dishes,
    max(price) as most_expensive_italian_dishes
FROM menu_items
WHERE category = 'Italian';
```

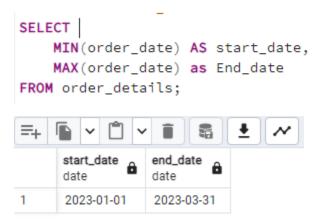


Q4. How many dishes are in each category? What is the average dish price within each category?

SELECT category, count(item_id) as total_dishes, ROUND(avg(price),0) as average_price FROM menu_items GROUP BY category;



Q5. View the order_details table. What is the date range of the table?



Q6. How many orders were made within this date range? How many items were ordered within this date range?

```
SELECT COUNT(order_id)

FROM order_details

WHERE order_date BETWEEN '2023-01-01' AND '2023-03-31';

count bigint 1 12234
```

Q7. Which orders had the most number of items?

SELECT

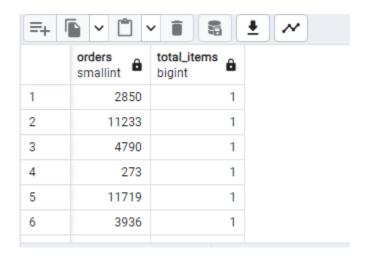
```
order_details_id AS orders,

COUNT(item_id) as Total_items

FROM order_details

GROUP BY order_details_id

ORDER BY Total_items DESC;
```



Q8. How many orders had more than 12 items?

SELECT

```
COUNT(order_id) AS orders_with_more_than_twelve_items,
    COUNT(item_id) AS number_of_items
FROM order_details
HAVING COUNT(item_id)>12;
```



Q9. Combine the menu_items and order_details tables into a single table

M.item_id, m.item_name, m.category, m.price, o.order_details_id, o.order_id, o.order_time, o.item_id FROM menu_items m JOIN order_details o USING(item_id);

	item_id smallint	item_name character varying (45)	category character varying (45)	price numeric (5,2)	order_details_id smallint	order_id amailint	order_date date	order_time time without time zone	item_id smallint	
1	109	Korean Beef Bowl	Asian	17.95	1	1	2023-01-01	11:38:36	109	
2	108	Tofu Pad Thai	Asian	14.50	2	2	2023-01-01	11:57:40	108	
3	124	Spaghetti	Italian	14.50	3	2	2023-01-01	11:57:40	124	
4	117	Chicken Burrito	Mexican	12.95	4	2	2023-01-01	11:57:40	117	
5	129	Mushroom Ravioli	Italian	15.50	5	2	2023-01-01	11:57:40	129	
6	106	French Fries	American	7.00	6	2	2023-01-01	11:57:40	106	
7	117	Chicken Burrito	Mexican	12.95	7	3	2023-01-01	12:12:28	117	
8	119	Chicken Torta	Mexican	11.95	8	3	2023-01-01	12:12:28	119	
9	117	Chicken Burrito	Mexican	12.95	9	4	2023-01-01	12:16:31	117	
10	117	Chicken Burrito	Mexican	12.95	10	5	2023-01-01	12:21:30	117	
11	101	Hamburger	American	12.95	11	6	2023-01-01	12:29:36	101	
12	114	Potstickers	Asian	9.00	12	6	2023-01-01	12:29:36	114	
13	123	Chips & Guacamole	Mexican	9.00	13	7	2023-01-01	12:50:37	123	
14	123	Chips & Guacamole	Mexican	9.00	14	8	2023-01-01	12:51:37	123	
15	108	Tofu Pad Thai	Asian	14.50	15	9	2023-01-01	12:52:01	108	

Q10. What were the least and most ordered items? What categories were they in?

```
SELECT
    m.item_name,
    m.category,
    COUNT(order_id) AS number_of_orders
FROM
    menu_items m
LEFT JOIN
    order_details o
USING(item_id)
GROUP BY
    m.item_name,
    m.category
ORDER BY
    number_of_orders ASC
LIMIT 1;
```



Q11. Most ordered items

```
SELECT
    m.item_name,
    m.category,
    COUNT(order_id) AS number_of_orders
FROM
    menu_items m
LEFT JOIN
    order_details o
USING(item_id)
GROUP BY
    m.item_name,
    m.category
ORDER BY
    number_of_orders DESC
LIMIT 1;
```



Q12. What were the top 5 orders that spent the most money?

```
SELECT
    o.order_id,
    SUM(m.price) AS total_spent
FROM
    order_details o
JOIN
    menu_items m
USING(item_id)
GROUP BY
    o.order_id
ORDER BY
    total_spent DESC
LIMIT 5;
=+
                total_spent
      order_id
      smallint
                numeric
1
            440
                      192.15
2
           2075
                      191.05
3
           1957
                      190.10
4
            330
                      189.70
5
           2675
                      185.10
```

Q13. View the details of the highest spend order. Which specific items were purchased?

```
SELECT *
FROM order_details o
JOIN menu_items m
USING(item_id)
WHERE order_id = 440;
```

	item_id amallint	order_details_id smallint	order_id smallint	order_date date	order_time time without time zone	item_name character varying (45)	category character varying (45)	price numeric (5,2)		
1	116	1003	440	2023-01-08	12:16:34	Steak Tacos	Mexican	13.95		
2	103	1004	440	2023-01-08	12:16:34	Hot Dog	American	9.00		
3	124	1005	440	2023-01-08	12:16:34	Spaghetti	Italian	14.50		
4	125	1006	440	2023-01-08	12:16:34	Spaghetti & Meatballs	Italian	17.95		
5	125	1007	440	2023-01-08	12:16:34	Spaghetti & Meatballs	Italian	17.95		
6	126	1008	440	2023-01-08	12:16:34	Fettuccine Alfredo	Italian	14.50		
7	126	1009	440	2023-01-08	12:16:34	Fettuccine Alfredo	Italian	14.50		
8	109	1010	440	2023-01-08	12:16:34	Korean Beef Bowl	Asian	17.95		
9	127	1011	440	2023-01-08	12:16:34	Meat Lasagna	Italian	17.95		
10	113	1012	440	2023-01-08	12:16:34	Edamame	Asian	5.00		
11	122	1013	440	2023-01-08	12:16:34	Chips & Salsa	Mexican	7.00		
12	131	1014	440	2023-01-08	12:16:34	Chicken Parmesan	Italian	17.95		
13	106	1015	440	2023-01-08	12:16:34	French Fries	American	7.00		
14	132	1016	440	2023-01-08	12:16:34	Eggplant Parmesan	Italian	16.95		

Q14. View the details of the top 5 highest spend orders

```
SELECT *
FROM menu_items m
JOIN order_details o
USING(item_id)
WHERE order_id IN(440,2075,1957,330,2675);
```

	item_id smallint	item_name character varying (45)	category character varying (45)	price numeric (5,2)	order_details_id smallint	order_id smallint	order_date date	order_time time without time zone		
1	107	Orange Chicken	Asian	16.50	750	330	2023-01-06	13:27:11		
2	103	Hot Dog	American	9.00	751	330	2023-01-06	13:27:11		
3	108	Tofu Pad Thai	Asian	14.50	752	330	2023-01-06	13:27:11		
4	108	Tofu Pad Thai	Asian	14.50	753	330	2023-01-06	13:27:11		
5	124	Spaghetti	Italian	14.50	754	330	2023-01-06	13:27:11		
6	125	Spaghetti & Meatballs	Italian	17.95	755	330	2023-01-06	13:27:11		
7	109	Korean Beef Bowl	Asian	17.95	756	330	2023-01-06	13:27:11		
8	112	Salmon Roll	Asian	14.95	757	330	2023-01-06	13:27:11		
9	118	Steak Burrito	Mexican	14.95	758	330	2023-01-06	13:27:11		
10	120	Steak Torta	Mexican	13.95	759	330	2023-01-06	13:27:11		
11	122	Chips & Salsa	Mexican	7.00	760	330	2023-01-06	13:27:11		
12	122	Chips & Salsa	Mexican	7.00	761	330	2023-01-06	13:27:11		
13	131	Chicken Parmesan	Italian	17.95	762	330	2023-01-06	13:27:11		
14	114	Potstickers	Asian	9.00	763	330	2023-01-06	13:27:11		

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