Restaurant Operations Analysis case study

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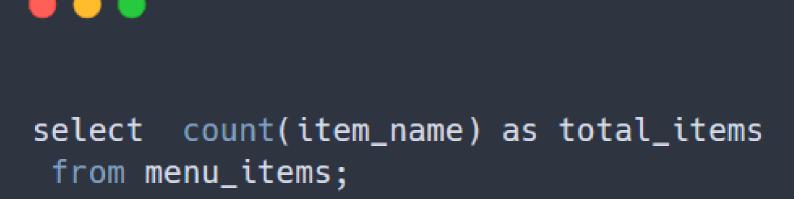
Situation: I have been hired as Data analyst for the taste of the world cafe
A restaurant that has diverse menu offerings & serves generous portion .

I have dig into the customer data to see which menu items doing well/not well & what th the top customers seem to like best

write a Query to find total No of items available at Menu

```sql
select   count(item_name) as total_items
  from menu_items;
```

what are the least & most expensive items on menu ?

```sql
select item_name ,   price as
most_expensive_price   from menu_items
order by 2 desc
limit 1;

select item_name ,   price as
least_expensive_price   from menu_items
order by 2
limit 1;
```

How many Itelian Dishes are on menu ? what are the least & most expensive italian dishes on menu ?

```sql
select    count(item_name)  as total_items
from menu_items
where category = 'italian' ;


select *    from menu_items
where category = 'italian'
order by price  desc
limit 1;

select *    from menu_items
where category = 'italian'
order by price
limit 1;
```

How Many dishes are in each category ? what is the average dish price within each category ?

```sql
select category , count(item_name) as
total_dishes , round(avg(price),2)    as
avg_price   from menu_items
group by 1;
```

what is the date range of the table ?

```sql
select min(order_date)  as order_start_date
, max(order_date) as order_end_date from
order_details;
```

How Many orders were made within this date range ?

```sql
select count( distinct order_id)  as
total_orders from order_details;
```

which orders had the most number of items ?

```sql
select order_id , count(item_id)  as orders
from order_details
group by 1
order by orders desc;
```

how many orders having more than 12 items ? ?

```sql
select count(order_id)  as num_orders  from
(select order_id , count(item_id)  as orders
from order_details
group by 1
having  orders > 12 ) as orders;
```

what were the least & most ordered items ? what categories where they in ?

```sql
select m.item_name , m.category,
 count(order_id)  as most_orderd_items
from  menu_items m
right join order_details o on
m.ï»¿menu_item_id = o.item_id
group by 1 ,2
order  by 3 desc
limit 1;

select m.item_name ,  m.category ,
count(order_id)  as least_orderd_items
from  menu_items m
right join order_details o on
m.ï»¿menu_item_id = o.item_id
group by 1 , 2
order  by 3
limit 1;
```

what are the top 5 orders that spent the Most Money ?

```sql
select  d.order_id , round(sum(m.price),0)
as Most_spending  from order_details d
left  join menu_items m on m.ï»¿menu_item_id
= d.item_id
group by 1
order by 2 desc
limit 5;
```

view the details of the top 5 highest spend orders ? what insights can you gather from the result ?

```sql
select d.order_id ,  m.category ,
round(sum(m.price),0) as Most_spending  from
order_details d
left  join menu_items m on m.ï»¿menu_item_id
= d.item_id
group by 1,2
order by 3 desc
limit 5
```

KEY INSIGHTS :

- Total 35 food items available at Menu Card .

- Shrimp Scampi food item was most expensive item.

- Edamame was least expensive food item from menu card.

- Total 9 italian food dishes was available.

- Shrimp scampi most expensive italian food while speghetti least expensive italian food .

- Total 5370 orders were made between order start date 1//23 to order end date 3/9/23.

- Hamburger from american category is most orderd item

KEY INSIGHTS :

- Chicken Tacos is the least Expensive Item from Mexican food category

- Italian Food is the most Expensive Category amongst all categories available at restaurant.

Thank you