Restaurant Operation Analysis

1) Identify popular and unpopular cuisines:

SELECT m.category, count(*) as num_order

FROM order_details as o

JOIN menu_items as m

ON m.menu_item_id = o.item_id
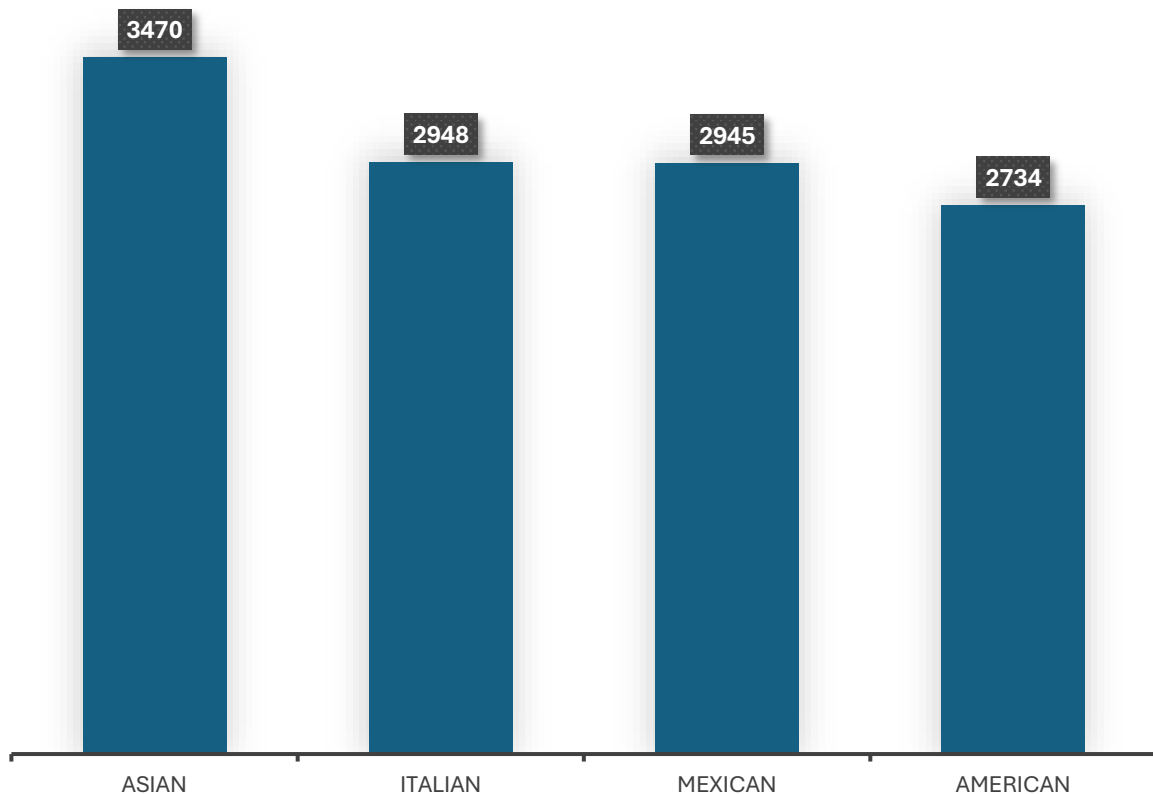
GROUP BY 1

ORDER BY 2 DESC;

category	num_order
Asian	3470
Italian	2948
Mexican	2945
American	2734

Total orders by cusines

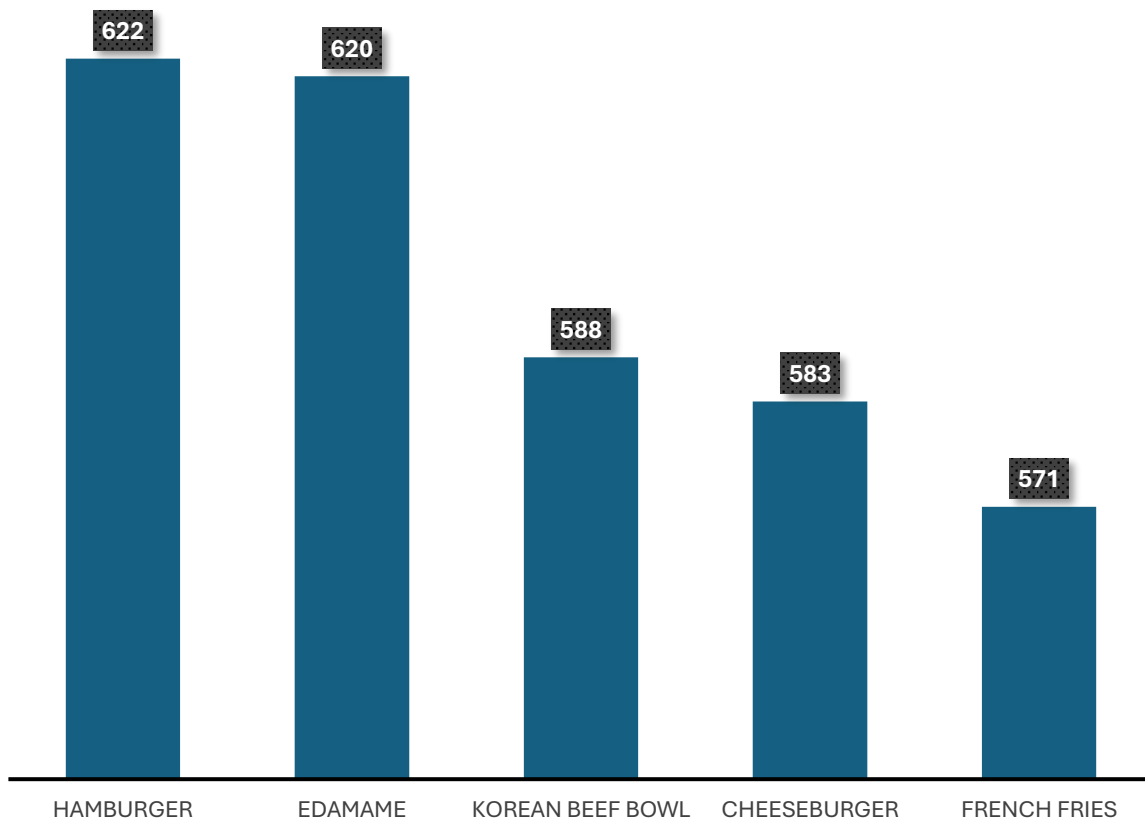| ASIAN	ITALIAN	MEXICAN	AMERICAN
3470	2948	2945	2734

2) Identify top 5 popular and unpopular menu items:

```
SELECT m.item_name, count(*) as num_order

FROM order_details as o

JOIN menu_items as m

ON m.menu_item_id = o.item_id

GROUP BY 1

ORDER BY 2 DESC

LIMIT 5;
```

item_name	num_order
Hamburger	622
Edamame	620
Korean Beef Bowl	588
Cheeseburger	583
French Fries	571

Top 5 popular items

3) Identify top 5 unpopular menu items:

```
SELECT m.item_name, count(*) as num_order

FROM order_details as o

JOIN menu_items as m

ON m.menu_item_id = o.item_id

GROUP BY 1

ORDER BY 2 ASC

LIMIT 5;
```
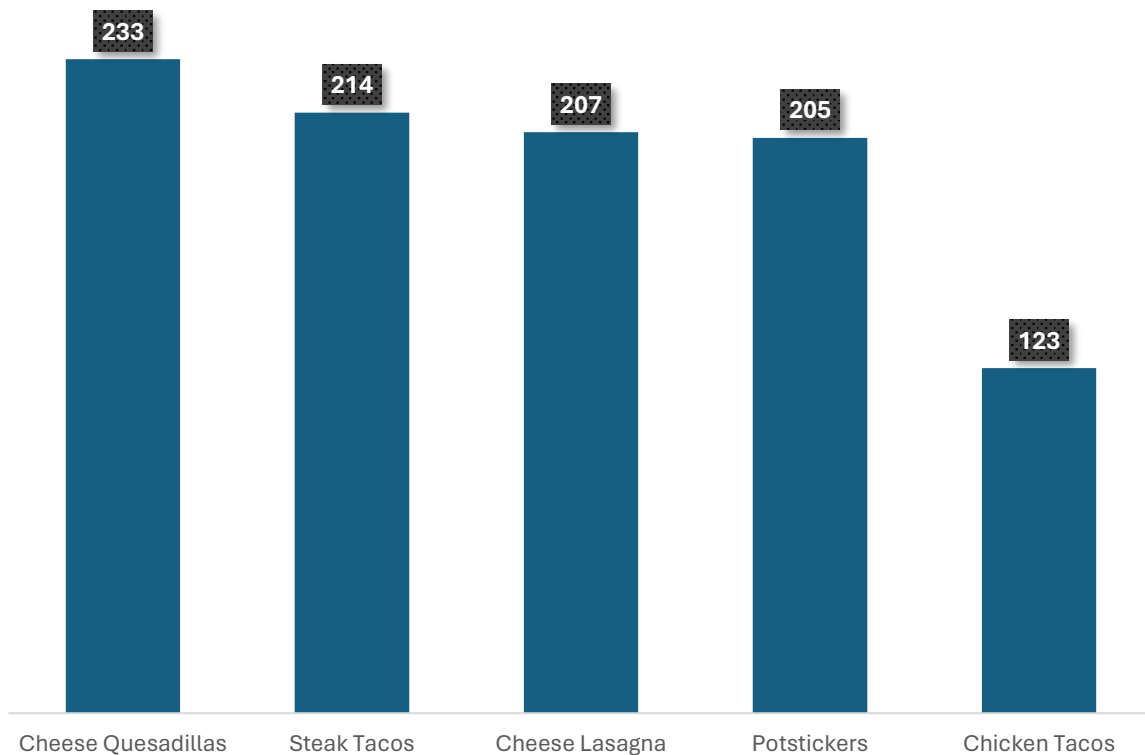
item_name	num_order
Chicken Tacos	123
Potstickers	205
Cheese Lasagna	207
Steak Tacos	214
Cheese Quesadillas	233

Top 5 unpopular items

Cheese Quesadillas	Steak Tacos	Cheese Lasagna	Potstickers	Chicken Tacos
233	214	207	205	123

3) Check whether certain time that had more or less order:

```sql
SELECT CASE

WHEN o.order_time <= '12:00:00' then 'Morning'

WHEN o.order_time > '12:00:00' AND o.order_time <= '16:00:00' then 'Afteroon'

 WHEN o.order_time > '16:00:00' AND o.order_time <= '20:00:00' then 'Evening'

WHEN o.order_time <= '24:00:00' then 'Night'

END as time_period,

count(*) as num_orders

FROM order_details as o

JOIN menu_items as m ON m.menu_item_id = o.item_id

GROUP BY 1

ORDER BY 2 DESC;
```

time_period	num_orders
Afteroon	4915
Evening	4757
Night	1795
Morninng	630

Order distribution by time of day

- Night 15%
- Morning 5%
- Afternoon 41%
- Evening 39%
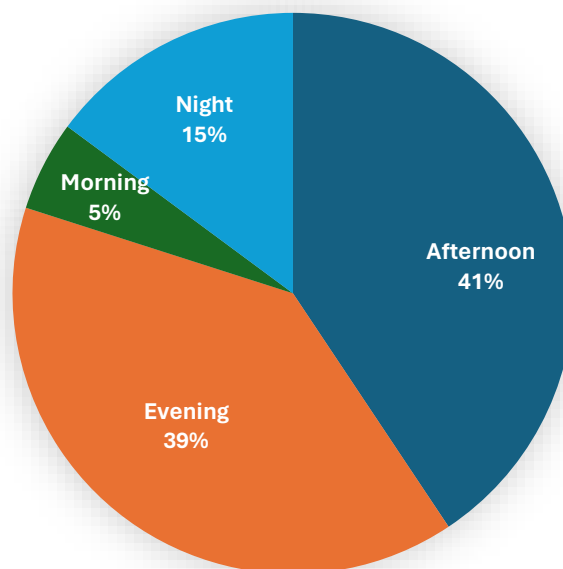
4) Determine Sales distribution by cuisines:

```sql
SELECT m.category, SUM(m.price) as num_order

FROM order_details as o

JOIN menu_items as m

ON m.menu_item_id = o.item_id

GROUP BY 1

ORDER BY 2 DESC;
```

category	num_order
Italian	49462.70
Asian	46720.65
Mexican	34796.80
American	28237.75

Sales Distribution by cusines