Q:5 WHAT IS THE PROFITABILITY BREAKDOWN ACROSS DIFFERENT FOOD CATEGORIES?

```
Ans: select
category,
count(item_id) as total_orders,
sum(price) as total_revenue
from
menu_items
join
order_details on item_id
group by
category
order by
total_revenue desc
limit 4;
```

Query

category	total_orders	total_revenue
Italian	108873	1823622.749998136
Asian	96776	1304056.5999988127
Mexican	108873	1284701.399998243
American	72582	730658.7999998245

Answer Table

Q:7 WHAT TIME OF DAY DOES THE RESTAURANT EXPERIENCE THE HIGHEST ORDER VOLUME?

Query

```sql
SELECT
    DATE_FORMAT(STR_TO_DATE(order_time, '%h:%i:%s %p'), '%h %p') AS order_hour_12hr,
    COUNT(order_id) AS total_orders
FROM
    managment_restaurnt.order_details
GROUP BY
    order_hour_12hr
ORDER BY
    total_orders DESC;
```

Answer Table

order_hour_12hr	total_orders
12 PM	1659
01 PM	1558
05 PM	1355
06 PM	1290
07 PM	1074
04 PM	1035
02 PM	956
08 PM	882
03 PM	743
11 AM	624
09 PM	600
10 PM	305
11 PM	11
10 AM	5

Q:8 ANALYSE THE RELATIONSHIP BETWEEN WEEKDAYS AND ORDERING FREQUENCY.

Answer Table

day_of_week	order_count
Monday	709
Tuesday	542
Wednesday	683
Thursday	718
Friday	785
Saturday	640
Sunday	820

Query

```
SELECT
    DAYNAME(STR_TO_DATE(order_date, '%d-%m-%Y')) AS day_of_week,
    COUNT(order_id) AS order_count
FROM
    managment_restaurnt.order_details
WHERE
    STR_TO_DATE(order_date, '%d-%m-%Y') IS NOT NULL
GROUP BY
    day_of_week
ORDER BY
    FIELD(day_of_week, 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', 'Sunday');
```

Q:9 DETERMINE THE IMPACT OF DIFFERENT PRICE ON THE VOLUME OF ORDERS RECEIVED.

Query

```
Select
price,
count(order_id) as total_orders
from
order_details
join
managment_restaurnt.menu_items on item_id = item_id
group by
price
order by
total_orders desc;
```

Answer Table

price	total_orders
17.95	60485
14.5	36291
9	36291
7	36291
13.95	36291
11.95	36291
15.5	24194
10.5	24194
14.95	24194
12.95	24194
16.95	12097
19.95	12097
5	12097
16.5	12097

ANALYSIS INSIGHTS

1. TOP-PERFORMING ITEMS

THE ANALYSIS REVEALED THE TOP-PERFORMING MENU ITEMS IN TERMS OF REVNUE IS *CHIPS & GUACAMOLE* WITH REVENUE *108873*.

2. MONTHLY REVENUE TRENDS

REVENUE TRENDS SHOWED THAT *MARCH* MONTH WITH REVENUE *1760971*. THIS MONTH GENERATED SIGNIFICANTLY HIGHER REVENUE

3. RUSH HOURS

THE RUSH HOURS ANALYSIS INDICATED THAT THE RESTAURANT EXPERIENCES PEAK ORDERS DURING *12, 1, 4, 5, 6 PM*.

4. MOST AND LEAST EXPENSIVE DISHES

THE MOST EXPENSIVE DISH ON THE MENU IS *SHRIMP SCAMPI* AND THE LEAST EXPENSIVE DISH IS *EDAMAME* .

5. MOST POPULAR FOOD CATEGORY

THE MOST POPULAR CATEGORY IS *ITALYAN* AND THE LEAST POPULAR CATEGORY IS *AMERICAN FOOD.*

RECOMMENDATIONS

- BASED ON THE POPULARITY OF CERTAIN ITEMS, CONSIDER INTRODUCING NEW VARIATIONS OR COMPLEMENTARY DISHES. FOR HIGH-PERFORMING ITEMS, PREMIUM VERSIONS COULD BE OFFERED TO INCREASE THE AVERAGE ORDER VALUE.

- GIVEN THE IDENTIFIED RUSH HOURS, ENSURE THAT THE RESTAURANT IS ADEQUATELY STAFFED DURING THESE TIMES TO HANDLE THE INCREASED ORDER VOLUME EFFICIENTLY. CONSIDER IMPLEMENTING SHIFT CHANGES THAT ALIGN WITH THESE PEAK PERIODS.

- SINCE WEEKENDS HAVE HIGHER ORDER VOLUMES, CONSIDER RUNNING SPECIAL PROMOTIONS OR EVENTS ON WEEKDAYS TO BALANCE THE ORDER FLOW THROUGHOUT THE WEEK.

- REVIEW KITCHEN WORKFLOWS AND ORDER MANAGEMENT PROCESSES TO IDENTIFY AND ELIMINATE BOTTLENECKS. THIS COULD INVOLVE REVISING THE KITCHEN LAYOUT, ADDING MORE KITCHEN STAFF DURING PEAK TIMES, OR ADOPTING TECHNOLOGY TO STREAMLINE ORDER PROCESSING.