

Task 2

Below are the queries that directly answer 2 of the given predetermined questions from a business stakeholder.

1. When considering *average spend* from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?

The screenshot shows a database management tool interface. The top panel displays a SQL query for 'Query 5':

```
1 #When considering average spend from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?
2 SELECT
3     rewards_receipt_status as greater_status,
4     AVG(total_spent) AS average_spend
5 FROM fetch_challenge.receipts_data
6 WHERE rewards_receipt_status IN ('Accepted', 'Rejected')
7 GROUP BY rewards_receipt_status;
8
```

The bottom panel shows the 'Result Grid' with the following data:

greater_status	average_spend
REJECTED	23.3521

The bottom panel also shows a log of database actions with columns: Time, Action, Response, and Duration / Fetch Time.

Time	Action	Response	Duration / Fetch Time
21:02:07	SELECT b.name, SUM(i.price * i.quantity) AS total_spent FROM fetch_challenge.receipt_items_data i JOIN fetch...	Error Code: 1054. Unknown column 'i.price' in 'field list'	0.00066 sec
21:05:00	SELECT rewards_receipt_status, AVG(total_spent) AS average_spend FROM fetch_challenge.receipts_da...	1 row(s) returned	0.0057 sec / 0.00000...
21:06:36	SELECT rewards_receipt_status, AVG(total_spent) AS average_spend FROM fetch_challenge.receipts_da...	1 row(s) returned	0.0026 sec / 0.00000...
21:07:44	SELECT r.rewards_receipt_status, SUM(i.quantity_purchased) AS total_items_purchased FROM fetch_cha...	1 row(s) returned	0.012 sec / 0.000012...
21:09:24	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0028 sec / 0.00000...
21:09:28	SELECT * FROM fetch_challenge.receipts_data LIMIT 0, 50	50 row(s) returned	0.00083 sec / 0.000...
21:09:52	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0040 sec / 0.0000...
21:09:53	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0028 sec / 0.00000...
21:09:53	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0016 sec / 0.00000...
21:09:54	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0021 sec / 0.00001...
21:09:55	SELECT rewards_receipt_status as greater_status, AVG(total_spent) AS average_spend FROM fetch_cha...	1 row(s) returned	0.0026 sec / 0.00000...

Query 1:

```
SELECT
    rewards_receipt_status as greater_status,
    AVG(total_spent) AS average_spend
FROM fetch_challenge.receipts_data
WHERE rewards_receipt_status IN ('Accepted', 'Rejected')
GROUP BY rewards_receipt_status;
```

For answering this question, I have averaged the total_spent values from the table receipts_data for both the status individually. However, there is no receipt with the status 'Accepted' in the table and hence, we see that the average spend amount is greater by default for the receipt status 'Rejected'.

2. When considering the total *number of items purchased* from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?

The screenshot shows a SQL IDE interface with a query editor and a results grid. The query is as follows:

```

1. #When considering total number of items purchased from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?
2. SELECT
3.     receipt.rewards_receipt_status,
4.     SUM(items.quantity_purchased) AS total_items_purchased
5. FROM fetch_challenge.receipts_data receipt
6. JOIN fetch_challenge.receipt_items_data items ON receipt.r_id = items.receipt_id
7. WHERE receipt.rewards_receipt_status IN ('Accepted', 'Rejected')
8. GROUP BY receipt.rewards_receipt_status;
9.

```

The results grid shows the following data:

rewards_receipt_status	total_items_purchased
REJECTED	141

The bottom section of the IDE shows the 'Action Output' tab with a log of SQL queries and their execution times.

Query 2:

```

SELECT
    receipt.rewards_receipt_status,
    SUM(items.quantity_purchased) AS total_items_purchased
FROM fetch_challenge.receipts_data receipt
JOIN fetch_challenge.receipt_items_data items ON receipt.r_id = items.receipt_id
WHERE receipt.rewards_receipt_status IN ('Accepted', 'Rejected')
GROUP BY receipt.rewards_receipt_status;

```