

1.1.Total Spent per Category:

Write a query to find the total amount you spent in each category (Groceries, Entertainment, etc.). Hint: Use GROUP BY category and SUM(amount).

```
MariaDB [expense_tracker]> SELECT category, SUM(amount) AS total_spent
-> FROM expenses
-> GROUP BY category;
```

```
+-----+-----+
| category | total_spent |
+-----+-----+
| Bills    | 75.40 |
| Clothing | 15.99 |
| Dining Out | 30.00 |
| Entertainment | 57.50 |
| Groceries | 55.75 |
| Other     | 22.00 |
| Transportation | 5.00 |
| Travel    | 350.00 |
+-----+-----+
```

8 rows in set (0.002 sec)

1.2.Average Expense per Category:

Now, let's see the average cost for each category. Write a query to find the average expense amount for each category. Hint: Use GROUP BY category and AVG(amount).

```
MariaDB [expense_tracker]> SELECT category , AVG(amount) AS
average_expense
-> FROM expenses
-> GROUP BY category;
```

```
+-----+-----+
| category | average_expense |
+-----+-----+
| Bills    | 75.400000 |
| Clothing | 15.990000 |
| Dining Out | 30.000000 |
| Entertainment | 28.750000 |
| Groceries | 27.875000 |
| Other     | 22.000000 |
+-----+-----+
```

Transportation	5.000000
Travel	350.000000

8 rows in set (0.008 sec)

Bonus Challenge (Optional):

Are you curious about your top spending categories? Modify your query from Challenge 1 to show only the top 3 (or a chosen number) categories where you spend the most.

1)

```
MariaDB [expense_tracker]> SELECT category, SUM(amount) AS total_spent
-> FROM expenses
-> GROUP BY category
-> ORDER BY total_spent DESC
-> LIMIT 3;
```

category	total_spent
Travel	350.00
Bills	75.40
Entertainment	57.50

3 rows in set (0.002 sec)

2)

```
MariaDB [expense_tracker]> SELECT category, total_spent
-> FROM (
-> SELECT category , SUM(amount) AS total_spent
-> FROM expenses
-> GROUP BY category
-> ORDER BY total_spent DESC
-> LIMIT 3
-> ) AS top_expenses;
```

category	total_spent
Travel	350.00

Bills	75.40
Entertainment	57.50

3 rows in set (0.006 sec)

```
MariaDB [expense_tracker]> SELECT category, total_spent
-> FROM (
->   SELECT category, SUM(amount) AS total_spent,
->     RANK() OVER (ORDER BY SUM(amount) DESC) AS ranking
->   FROM expenses
->   GROUP BY category
-> ) AS ranked_expenses
-> WHERE ranking <= 3;
```

category	total_spent
Bills	75.40
Entertainment	57.50
Travel	350.00

3 rows in set (0.014 sec)

```
MariaDB [expense_tracker]> SELECT *
-> FROM (
->   SELECT category, SUM(amount) AS total_spent
->   FROM expenses
->   GROUP BY category
->   ORDER BY total_spent DESC
-> ) AS subquery
-> LIMIT 3;
```

category	total_spent
Travel	350.00
Bills	75.40

| Entertainment | 57.50 |
+-----+-----+
3 rows in set (0.001 sec)

**THIS LAST METHOD IS THE BEST METHOD AS IT TAKES THE
SHORTEST RUN TIME OF 0.001 SEC**

****Remember:****

There might be different ways to solve these challenges. Experiment and see what works best for you!

Don't hesitate to ask the database team for help if you get stuck.