mysql>

mysql> -- Part 1: Retrieving Data with SELECT

Query OK, 0 rows affected (0.00 sec)

mysql> -- 1.1

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses;

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 1 | 50.00 | 2024-01-01 | Groceries |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 4 | 60.00 | 2024-02-01 | Food |

| 5 | 200.00 | 2024-02-10 | Rent |

| 6 | 30.00 | 2024-02-15 | Utilities |

| 7 | 50.00 | 2024-01-01 | Groceries |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 10 | 60.00 | 2024-02-01 | Food |

| 11 | 200.00 | 2024-02-10 | Rent |

| 12 | 30.00 | 2024-02-15 | Utilities |

+------------+--------+------------+----------------+

12 rows in set (0.00 sec)

mysql>

mysql> -- 1.2

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT date, category, amount FROM Expenses;

+------------+----------------+--------+

| date | category | amount |

+------------+----------------+--------+

| 2024-01-01 | Groceries | 50.00 |

| 2024-01-05 | Transportation | 75.00 |

| 2024-01-10 | Entertainment | 100.00 |

| 2024-02-01 | Food | 60.00 |

| 2024-02-10 | Rent | 200.00 |

| 2024-02-15 | Utilities | 30.00 |

| 2024-01-01 | Groceries | 50.00 |

| 2024-01-05 | Transportation | 75.00 |

| 2024-01-10 | Entertainment | 100.00 |

| 2024-02-01 | Food | 60.00 |

| 2024-02-10 | Rent | 200.00 |

| 2024-02-15 | Utilities | 30.00 |

+------------+----------------+--------+

12 rows in set (0.00 sec)

mysql>

mysql> -- 1.3

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE date BETWEEN '2024-01-01' AND '2024-02-15';

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 1 | 50.00 | 2024-01-01 | Groceries |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 4 | 60.00 | 2024-02-01 | Food |

| 5 | 200.00 | 2024-02-10 | Rent |

| 6 | 30.00 | 2024-02-15 | Utilities |

| 7 | 50.00 | 2024-01-01 | Groceries |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 10 | 60.00 | 2024-02-01 | Food |

| 11 | 200.00 | 2024-02-10 | Rent |

| 12 | 30.00 | 2024-02-15 | Utilities |

+------------+--------+------------+----------------+

12 rows in set (0.00 sec)

mysql>

mysql> -- Part 2: Filtering with WHERE Clause

Query OK, 0 rows affected (0.00 sec)

mysql> -- 2.1

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE category = 'Entertainment';

+------------+--------+------------+---------------+

| expense\_id | amount | date | category |

+------------+--------+------------+---------------+

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 9 | 100.00 | 2024-01-10 | Entertainment |

+------------+--------+------------+---------------+

2 rows in set (0.00 sec)

mysql>

mysql> -- 2.2

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE amount > 50;

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 2 | 75.00 | 2024-01-05 | Transportation |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 4 | 60.00 | 2024-02-01 | Food |

| 5 | 200.00 | 2024-02-10 | Rent |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 10 | 60.00 | 2024-02-01 | Food |

| 11 | 200.00 | 2024-02-10 | Rent |

+------------+--------+------------+----------------+

8 rows in set (0.00 sec)

mysql>

mysql> -- 2.3

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE amount > 75 AND category = 'Food';

Empty set (0.00 sec)

mysql>

mysql> -- 2.4

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE category = 'Transportation' OR category = 'Groceries';

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 1 | 50.00 | 2024-01-01 | Groceries |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 7 | 50.00 | 2024-01-01 | Groceries |

| 8 | 75.00 | 2024-01-05 | Transportation |

+------------+--------+------------+----------------+

4 rows in set (0.00 sec)

mysql>

mysql> -- 2.5

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> WHERE category != 'Rent';

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 1 | 50.00 | 2024-01-01 | Groceries |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 4 | 60.00 | 2024-02-01 | Food |

| 6 | 30.00 | 2024-02-15 | Utilities |

| 7 | 50.00 | 2024-01-01 | Groceries |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 10 | 60.00 | 2024-02-01 | Food |

| 12 | 30.00 | 2024-02-15 | Utilities |

+------------+--------+------------+----------------+

10 rows in set (0.00 sec)

mysql>

mysql> -- Part 3: Sorting Retrieved Data

Query OK, 0 rows affected (0.00 sec)

mysql> -- 3.1

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> ORDER BY amount DESC;

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 5 | 200.00 | 2024-02-10 | Rent |

| 11 | 200.00 | 2024-02-10 | Rent |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 4 | 60.00 | 2024-02-01 | Food |

| 10 | 60.00 | 2024-02-01 | Food |

| 1 | 50.00 | 2024-01-01 | Groceries |

| 7 | 50.00 | 2024-01-01 | Groceries |

| 6 | 30.00 | 2024-02-15 | Utilities |

| 12 | 30.00 | 2024-02-15 | Utilities |

+------------+--------+------------+----------------+

12 rows in set (0.00 sec)

mysql>

mysql> -- 3.2

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Expenses

-> ORDER BY date DESC, category ASC;

+------------+--------+------------+----------------+

| expense\_id | amount | date | category |

+------------+--------+------------+----------------+

| 6 | 30.00 | 2024-02-15 | Utilities |

| 12 | 30.00 | 2024-02-15 | Utilities |

| 5 | 200.00 | 2024-02-10 | Rent |

| 11 | 200.00 | 2024-02-10 | Rent |

| 4 | 60.00 | 2024-02-01 | Food |

| 10 | 60.00 | 2024-02-01 | Food |

| 3 | 100.00 | 2024-01-10 | Entertainment |

| 9 | 100.00 | 2024-01-10 | Entertainment |

| 2 | 75.00 | 2024-01-05 | Transportation |

| 8 | 75.00 | 2024-01-05 | Transportation |

| 1 | 50.00 | 2024-01-01 | Groceries |

| 7 | 50.00 | 2024-01-01 | Groceries |

+------------+--------+------------+----------------+

12 rows in set (0.00 sec)