

Task 6

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Part 1: Basic SQL Queries (SQLite Friendly)

1. Show all rows from the table

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `SELECT * FROM "Online Sales Data";`. The results pane displays a table with 10 rows of sales data.

Transaction ID	Date	Product Category	Product Name	Units Sold	Unit Price	Total Revenue	Region	Payment Method
10001	2024-01-01	Electronics	iPhone 14 Pro	2	999.99	1999.98	North America	Credit Card
10002	2024-01-02	Home Appliances	Dyson V11 Vacuum	1	499.99	499.99	Europe	PayPal
10003	2024-01-03	Clothing	Levi's 501 Jeans	3	69.99	209.97	Asia	Debit Card
10004	2024-01-04	Books	The Da Vinci Code	4	15.99	63.96	North America	Credit Card
10005	2024-01-05	Beauty Products	Neutrogena Skincare Set	1	89.99	89.99	Europe	PayPal
10006	2024-01-06	Sports	Wilson Evolution Basketball	5	29.99	149.95	Asia	Credit Card
10007	2024-01-07	Electronics	MacBook Pro 16-inch	1	2499.99	2499.99	North America	Credit Card
10008	2024-01-08	Home Appliances	Blueair Classic 480i	2	599.99	1199.98	Europe	PayPal
10009	2024-01-09	Clothing	Nike Air Force 1	6	89.99	539.94	Asia	Debit Card

2. Show only Product Name and Units Sold

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `SELECT "Product Name", "Units Sold" FROM "Online Sales Data";`. The results pane displays a table with 9 rows of product and unit data.

Product Name	Units Sold
iPhone 14 Pro	2
Dyson V11 Vacuum	1
Levi's 501 Jeans	3
The Da Vinci Code	4
Neutrogena Skincare Set	1
Wilson Evolution Basketball	5
MacBook Pro 16-inch	1
Blueair Classic 480i	2
Nike Air Force 1	6

3. Show total revenue of all transactions

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT SUM("Total Revenue") AS total_revenue FROM "Online Sales Data";
2
```

The results pane at the bottom displays the output of the query:

total_revenue
1 90567.85

The right sidebar shows the 'Remote' tab with 'DBHub.io' selected. The Windows taskbar at the bottom shows the time as 11:28 on 10-06-2025.

4. Show unique product categories

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT DISTINCT "Product Category" FROM "Online Sales Data";
2
```

The results pane at the bottom displays the output of the query:

Product Category
1 Electronics
2 Home Appliances
3 Clothing
4 Books
5 Beauty Products
6 Sports

The right sidebar shows the 'Remote' tab with 'DBHub.io' selected. The Windows taskbar at the bottom shows the time as 11:28 on 10-06-2025.

Part 2: Business Insights Queries (MySQL / SQLite)

1. Use strftime('%m', Date) for month (SQLite equivalent of EXTRACT(MONTH FROM Date))

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2   strftime('%m', Date) AS month,
3   SUM("Total Revenue") AS monthly_revenue
4 FROM
5   "Online Sales Data"
6 GROUP BY
7   month
8 ORDER BY
9   month;
```

The results pane displays the following data:

month	monthly_revenue
1 01	14549.32
2 02	10803.37
3 03	12849.24
4 04	12451.69
5 05	8455.49
6 06	7384.55
7 07	6797.08
8 08	7278.11

2. GROUP BY month (Transaction volume by month)

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2   strftime('%m', Date) AS month,
3   COUNT(DISTINCT "Transaction ID") AS transactions
4 FROM
5   "Online Sales Data"
6 GROUP BY
7   month
8 ORDER BY
9   month;
```

The results pane displays the following data:

month	transactions
1 01	31
2 02	29
3 03	31
4 04	30
5 05	31
6 06	30
7 07	31
8 08	27

3. SUM() for revenue (Revenue by product category)

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2   "Product Category",
3   SUM("Total Revenue") AS total_revenue
4 FROM
5   "Online Sales Data"
6 GROUP BY
7   "Product Category"
8 ORDER BY
9   total_revenue DESC;
```

The results pane displays a table with two columns: Product Category and total_revenue.

Product Category	total_revenue
1 Electronics	34982.41
2 Home Appliances	19646.16
3 Sports	14326.52
4 Clothing	9126.93
5 Beauty Products	2621.9
6 Books	1861.93

4. COUNT(DISTINCT order_id) for volume (Total transactions)

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2   COUNT(DISTINCT "Transaction ID") AS total_transactions
3 FROM
4   "Online Sales Data";
```

The results pane displays a table with one column: total_transactions.

total_transactions
1 240

5. ORDER BY for sorting (Revenue by product name)

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2     "Product Name",
3     SUM("Total Revenue") AS revenue
4 FROM
5     "Online Sales Data"
6 GROUP BY
7     "Product Name"
8 ORDER BY
9     revenue DESC;
```

The results pane displays a table with two columns: Product Name and revenue. The data is sorted in descending order of revenue.

	Product Name	revenue
1	Canon EOS R5 Camera	3899.99
2	LG OLED TV	2599.98
3	MacBook Pro 16-inch	2499.99
4	Apple MacBook Pro 16-inch	2399.0
5	iPhone 14 Pro	1999.98
6	Peloton Bike	1895.0
7	HP Spectre x360 Laptop	1599.99
8	Roomba i7+	1599.98
9	Garmin Forerunner 945	1599.97

6A. Filter for recent 6 months (Units sold by product name)

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the following query:

```
1 SELECT
2     "Product Name",
3     SUM("Units Sold") AS total_units
4 FROM
5     "Online Sales Data"
6 WHERE
7     Date >= date('now', '-6 months')
8 GROUP BY
9     "Product Name"
10 ORDER BY
11     total_units DESC;
```

The results pane shows the column headers: Product Name and total_units.

6B. Top 5 products by revenue

The screenshot shows the DB Browser for SQLite application. The main window displays a SQL query in the editor, which is executed. The results are shown in a table at the bottom of the editor. The table has two columns: 'Product Name' and 'revenue'. The results list the top 5 products by revenue.

```
1 SELECT
2   "Product Name",
3   SUM("Total Revenue") AS revenue
4 FROM
5   "Online Sales Data"
6 GROUP BY
7   "Product Name"
8 ORDER BY
9   revenue DESC
10 LIMIT 5;
```

	Product Name	revenue
1	Canon EOS R5 Camera	3899.99
2	LG OLED TV	2599.98
3	MacBook Pro 16-inch	2499.99
4	Apple MacBook Pro 16-inch	2399.0
5	iPhone 14 Pro	1999.98

The right sidebar shows the 'Remote' tab with 'DBHub.io' selected. The bottom status bar shows the system tray with various icons and the date '10-06-2025'.