Step 1: Import Dataset into PostgreSQL

```
1  CREATE TABLE online_sales (
2      order_id INT,
3      order_date DATE,
4      amount INT,
5      product_id INT
6  );
7  select * from online_sales;
8
```

Messages | Data Output | Notifications

	order_id integer	order_date date	amount integer	product_id integer
1	1051	2022-03-17	418	11
2	1092	2022-06-03	143	36
3	1014	2023-10-18	484	49
4	1071	2023-03-11	111	39
5	1060	2022-03-27	490	40

Total rows: 500 of 500 | Query complete 00:00:00.298

Step 2: SQL Queries

1. Monthly Revenue & Orders (All Years)

```sql
SELECT
    EXTRACT(YEAR FROM order_date) AS year,
    EXTRACT(MONTH FROM order_date) AS month,
    TO_CHAR(order_date, 'YYYY-MM') AS month_year,
    SUM(amount) AS total_revenue,
    COUNT(DISTINCT order_id) AS total_orders
FROM online_sales
GROUP BY year, month, month_year
ORDER BY year, month;
```

Messages | Data Output | Notifications

	year double precision	month double precision	month_year text	total_revenue bigint	total_orders bigint
1	2022	1	2022-01	6786	21
2	2022	2	2022-02	7263	22
3	2022	3	2022-03	7630	26

Total rows: 24 of 24 | Query complete 00:00:00.178

2. Filter for a Specific Year (e.g., 2023)

Query Query History

```
1  SELECT
2      TO_CHAR(order_date, 'YYYY-MM') AS month_year,
3      SUM(amount) AS total_revenue,
4      COUNT(DISTINCT order_id) AS total_orders
5  FROM online_sales
6  WHERE EXTRACT(YEAR FROM order_date) = 2023
7  GROUP BY month_year
8  ORDER BY month_year;
```

Messages Data Output

	month_year text	total_revenue bigint	total_orders bigint
1	2023-01	5743	18
2	2023-02	4595	15
3	2023-03	7105	21
4	2023-04	5709	18

Total rows: 12 of 12 Query complete 00:00:00.136

3. Top 5 Months by Revenue

```sql
SELECT
    TO_CHAR(order_date, 'YYYY-MM') AS month_year,
    SUM(amount) AS total_revenue,
    COUNT(DISTINCT order_id) AS total_orders
FROM online_sales
GROUP BY month_year
ORDER BY total_revenue DESC
LIMIT 5;
```

Messages | Data Output

	month_year text	total_revenue bigint	total_orders bigint
1	2022-08	8960	29
2	2022-04	7941	22
3	2022-03	7630	26
4	2022-02	7263	22

Total rows: 5 of 5 | Query complete 00:00:00.160

Step 3: Expected Results Table Layout

Month-Year	Total Revenue	Total Orders
2022-03	12,500	120
2022-04	10,800	95
2023-03	15,200	135

Month-Year	Total Revenue	Total Orders
2023-05	18,700	160
2023-10	20,400	175