

Analytics Assignment = Zywa assignment

SQL queries

Use dataset = zywa_transactions.sql

The screenshot shows the SQL Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The main pane shows the query editor with the text 'USE transactions_db;'. The bottom pane shows the 'Output' window with the following data:

#	Time	Action	Message
1	15:55:22	USE transactions_db	0 row(s) affected

Tables

The screenshot shows the SQL Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The main pane shows the query editor with the text 'SHOW TABLES;'. The bottom pane shows the 'Output' window with the following data:

#	Time	Action	Message
1	15:55:22	USE transactions_db	0 row(s) affected
2	16:05:34	SHOW TABLES	1 row(s) returned

Monthly transactions

The screenshot shows the SQL Developer interface with the following components:

- Navigator:** Shows the database schema structure with 'transactions_db' selected.
- Query Editor:** Contains the following SQL query:

```
1 • SELECT
2     DATE_FORMAT(FROM_UNIXTIME(transaction_timestamp), '%Y-%m') AS month,
3     SUM(transaction_amount) AS cumulative_amount
4 FROM transactions
5 GROUP BY month
6 ORDER BY month;
```
- Result Grid:** Displays the query results in a table:

month	cumulative_amount
1970-01	814337
- Output:** Shows the execution details:

#	Time	Action	Message
1	16:08:13	SELECT DATE_FORMAT(FROM_UNIXTIME(transaction_timestamp), '%Y-%m') AS month, SUM(transaction...	1 row(s) returned

Most Popular Products/Services:

The screenshot shows the SQL Developer interface with the following components:

- Navigator:** Shows the database schema structure with 'transactions_db' selected.
- Query Editor:** Contains the following SQL query:

```
8 • SELECT
9     merchant_name,
10     COUNT(*) AS transaction_count
11 FROM transactions
12 GROUP BY merchant_name
13 ORDER BY transaction_count DESC
14 LIMIT 5;
```
- Result Grid:** Displays the query results in a table:

merchant_name	transaction_count
Health Essentials	1
- Output:** Shows the execution details:

#	Time	Action	Message
1	16:10:55	SELECT merchant_name, COUNT(*) AS transaction_count FROM transactions GROUP BY merchant_name ...	1 row(s) returned

Daily Revenue Trend:

The screenshot shows the SQL Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The central pane shows a SQL query in 'Query 1' window:

```
15
16 • SELECT
17     DATE_FORMAT(FROM_UNIXTIME(transaction_timestamp), '%Y-%m-%d') AS day,
18     SUM(transaction_amount) AS daily_revenue
19 FROM transactions
20 GROUP BY day
21 ORDER BY day;
```

Below the query editor, the 'Result Grid' shows the following data:

day	daily_revenue
1970-01-01	814337

The bottom pane shows the 'Schema: transactions_db' and the 'Output' window with the following message:

```
1 16:13:11 SELECT DATE_FORMAT(FROM_UNIXTIME(transaction_timestamp), '%Y-%m-%d') AS day, SUM(transaction_... 1 row(s) returned
```

Average Transaction Amount by Product Category:

The screenshot shows the SQL Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The central pane shows a SQL query in 'Query 1' window:

```
22
23 • SELECT
24     merchant_type,
25     AVG(transaction_amount) AS average_transaction_amount
26 FROM transactions
27 GROUP BY merchant_type
28 ORDER BY average_transaction_amount DESC;
```

Below the query editor, the 'Result Grid' shows the following data:

merchant_type	average_transaction_amount
Auto Services	814337.0000

The bottom pane shows the 'Schema: transactions_db' and the 'Output' window with the following message:

```
1 16:14:32 SELECT merchant_type, AVG(transaction_amount) AS average_transaction_amount FROM transactions GR... 1 row(s) returned
```

Transaction Funnel Analysis:

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The main pane shows a query window with the following SQL code:

```
29
30 SELECT
31     transaction_status,
32     COUNT(*) AS transaction_count
33 FROM transactions
34 GROUP BY transaction_status
35 ORDER BY transaction_count DESC;
```

Below the query, the 'Result Grid' shows the following data:

transaction_status	transaction_count
1829	1

The bottom pane shows the 'Output' window with the following message:

```
1 16:16:33 SELECT transaction_status, COUNT(*) AS transaction_count FROM transactions GROUP BY transaction_sta... 1 row(s) returned
```

Monthly Retention Rate:

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SCHEMAS' tree with 'transactions_db' selected. The main pane shows a query window with the following SQL code:

```
47 COUNT(DISTINCT CASE WHEN DATE_FORMAT(FROM_UNIXTIME(t.transaction_timestamp), '%Y-%m') =
48 COUNT(DISTINCT CASE WHEN DATE_FORMAT(FROM_UNIXTIME(t.transaction_timestamp), '%Y-%m') =
49 COUNT(DISTINCT CASE WHEN DATE_FORMAT(FROM_UNIXTIME(t.transaction_timestamp), '%Y-%m') =
50 FROM (
51     SELECT
52         user_id,
53         DATE_FORMAT(FROM_UNIXTIME(MIN(transaction_timestamp)), '%Y-%m') AS cohort_month
54     FROM transactions
55     GROUP BY user_id
56 ) c
57 JOIN transactions t ON c.user_id = t.user_id
58 GROUP BY cohort_month
59 ORDER BY cohort_month;
```

Below the query, the 'Result Grid' shows the following data:

cohort_month	cohort_size	retained_users	subsequent_users	retention_rate
1970-01	1	1	0	1.0000

The bottom pane shows the 'Output' window with the following message:

```
1 16:23:28 SELECT cohort_month, COUNT(DISTINCT t.user_id) AS cohort_size, COUNT(DISTINCT CASE WHEN DAT... 1 row(s) returned
```