

Customer Churn Analysis for Telecom Industry

MySQL Workbench

Local instance wampmysqld x

File Edit View Query Database Server Tools Scripting Help

Navigator: task3_data_analyst task6_data_analyst SQL File 4* SQL File 5*

SCHEMAS

Filter objects

- my_database
- products
- project
- salesdb
- staff
- student
- student_details
- studentdb
- students
- sys
- triko_churn_dg

Schema: triko_churn_dg

Administration Schemas

Information

Result Grid

customerID gender SeniorCitizen Partner Dependents tenure PhoneService MultipleLines InternetService OnlineSecurity OnlineBackup DeviceProtection TechSupport

0013-MHZWF	Female	0	No	Yes	9	Yes	No	DSL	No	No	No	Yes
0021-BOGIC	Female	1	No	No	1	Yes	Yes	Fiber optic	No	No	No	No
0030-FNPP	Female	0	No	No	3	Yes	No	No	No internet service	No internet service	No internet service	No internet servi
0036-IHMOT	Female	0	Yes	Yes	55	Yes	No	Fiber optic	No	Yes	Yes	Yes
0040-HALCW	Male	0	Yes	Yes	54	Yes	No	No	No internet service	No internet service	No internet service	No internet servi
0042-RLHYP	Female	0	Yes	Yes	69	Yes	No	No	No internet service	No internet service	No internet service	No internet servi

customers 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:49:38	select * from customers limit 10	10 row(s) returned	0.078 sec / 0.000 sec

Object Info Session

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02:49 PM 16-05-2025

Total customers and churn rate

The image displays two screenshots of the MySQL Workbench interface, showing the execution of SQL queries to calculate total customers and churn rate.

Top Screenshot: The SQL editor shows the following queries:

```
30 #Total customers and churn rate
31 SELECT COUNT(*) AS total_customers FROM customers;
32
33 SELECT
34   Churn, COUNT(*) AS count,
35   ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FROM customers), 2) AS percentage
36 FROM customers
37 GROUP BY Churn;
```

The **Result Grid** shows the results of the first query:

total_customers
1312

The **Action Output** table shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	14:49:38	select * from customers limit 10	10 row(s) returned	0.078 sec / 0.000 sec
2	14:50:14	SELECT COUNT(*) AS total_customers FROM customers LIMIT 0, 1000	1 row(s) returned	0.063 sec / 0.000 sec

Bottom Screenshot: The SQL editor shows the same queries as the top screenshot. The **Result Grid** shows the results of the second query:

Churn	count	percentage
No	969	73.86
Yes	343	26.14

The **Action Output** table shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	14:49:38	select * from customers limit 10	10 row(s) returned	0.078 sec / 0.000 sec
2	14:50:14	SELECT COUNT(*) AS total_customers FROM customers LIMIT 0, 1000	1 row(s) returned	0.063 sec / 0.000 sec
3	14:50:29	SELECT Churn, COUNT(*) AS count, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FR...	2 row(s) returned	0.047 sec / 0.000 sec

Avg charges and tenure by churn

MySQL Workbench

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Administration Schemas

Information

Schema: trko_churn_dg

Result Grid

Churn	avg_tenure	avg_monthly	avg_total
No	37.45	63.32	2605.45
Yes	17.03	75.47	1455.48

Result 4

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:49:38	select * from customers limit 10	10 row(s) returned	0.078 sec / 0.000 sec
2	14:50:14	SELECT COUNT(*) AS total_customers FROM customers LIMIT 0, 1000	1 row(s) returned	0.063 sec / 0.000 sec
3	14:50:29	SELECT Churn, COUNT(*) AS count, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FR...	2 row(s) returned	0.047 sec / 0.000 sec
4	14:50:51	SELECT Churn, ROUND(AVG(tenure), 2) AS avg_tenure, ROUND(AVG(MonthlyCharges)...	2 row(s) returned	0.047 sec / 0.000 sec

Object Info Session

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Churn by contract type

MySQL Workbench

Local instance wampmysqld

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SCHMAS

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Administration Schemas

Information

Schema: trko_churn_dg

Result Grid

Contract	total	churned	churn_rate
Month-to-month	721	311	43.13
One year	272	27	9.93
Two year	319	5	1.57

Result 5

Output

Action Output

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3	14:50:29	SELECT Churn, COUNT(*) AS count, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FR...	2 row(s) returned	0.047 sec / 0.000 sec
4	14:50:51	SELECT Churn, ROUND(AVG(tenure), 2) AS avg_tenure, ROUND(AVG(MonthlyCharges)...	2 row(s) returned	0.047 sec / 0.000 sec
5	14:51:05	SELECT Contract, COUNT(*) AS total, SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 ...	3 row(s) returned	0.032 sec / 0.000 sec

Object Info Session

Type here to search

ENG 02:51 PM 16-05-2025

Customer Segments

MySQL Workbench

Local instance wampmysqld x

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Administration Schemas

Information

Schema: triko_churn_dg

```
51 SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 END) AS churned,
52 ROUND(SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 END) * 100.0 / COUNT(*), 2) AS churn_rate
53 FROM customers
54 GROUP BY Contract;
55 #Customer Segments
56 • SELECT
57 customerID,
```

Result Grid

customerID	Churn	tenure	MonthlyCharges	Segment
0013-MHZWF	No	9	69.4	Neutral
0021-BOGC	No	1	72.1	Dormant
0030-FWPP	No	3	19.85	Dormant
0036-PWOT	No	55	103.7	Loyal
0040-HALCW	No	54	20.4	Loyal
0042-GLHYP	No	69	19.7	Loyal
0048-LUMLS	No	37	91.2	Loyal

Result 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:49:38	select * from customers limit 10	10 row(s) returned	0.078 sec / 0.000 sec
2	14:50:14	SELECT COUNT(*) AS total_customers FROM customers LIMIT 0, 1000	1 row(s) returned	0.063 sec / 0.000 sec
3	14:50:29	SELECT Churn, COUNT(*) AS count, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FR...	2 row(s) returned	0.047 sec / 0.000 sec
4	14:50:51	SELECT Churn, ROUND(AVG(tenure), 2) AS avg_tenure, ROUND(AVG(MonthlyCharges)...	2 row(s) returned	0.047 sec / 0.000 sec
5	14:51:05	SELECT Contract, COUNT(*) AS total, SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 ...	3 row(s) returned	0.032 sec / 0.000 sec
6	14:51:17	SELECT customerID, Churn, tenure, MonthlyCharges, CASE WHEN Churn = 'Yes' T...	1000 row(s) returned	0.032 sec / 0.000 sec

Object Info Session

Type here to search

02:51 PM 16-05-2025