

# Sales\_Trend\_Analysis

Output Screenshots

MySQL Workbench

Local instance MySQL80

FileEditViewQueryDatabaseServerToolsScriptingHelp

Navigator

SCHEMAS

Filter objects

ecommerce\_db

superstore\_db

Tables

superstore

Views

Stored Procedures

Functions

sys

AdministrationSchemas

Information

Schema: superstore\_db

Object InfoSession

Query 1SQL exampleSQL Querysmo...top\_productsSQL File 7\*

Limit to 1000 rows

1CREATE DATABASE superstore\_db;

2USE superstore\_db;

3

4-- Extract the month from the order date

5SELECT

6EXTRACT(MONTH FROM STR\_TO\_DATE('Order Date', '%m/%d/%Y')) AS order\_month

7FROM superstore

8LIMIT 10;

Result Grid

Filter Rows:

Exports:

Wrap Cell Content:

Fetch rows:

order\_month

11

11

6

10

10

6

6

6

6

6

6

Result 2

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
8	11:23:25	DEALLOCATE PREPARE stmt	OK	0.000 sec
9	11:25:56	USE ecommerce_db	0 row(s) affected	0.000 sec
10	14:51:23	USE superstore_db	0 row(s) affected	0.000 sec
11	17:09:59	SELECT EXTRACT(MONTH FROM TO_DATE('Order Date', 'MM/DD/YYYY')) AS order_month FROM su...	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.031 sec
12	17:10:11	SELECT EXTRACT(MONTH FROM ('Order Date', 'MM/DD/YYYY')) AS order_month FROM superstore LI...	Error Code: 1241. Operand should contain 1 column(s)	0.016 sec
13	17:12:08	SELECT MONTH('Order Date') AS order_month FROM superstore LIMIT 10	10 row(s) returned	0.016 sec / 0.000 sec
14	17:12:31	SELECT EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month FROM s...	10 row(s) returned	0.000 sec / 0.000 sec

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Query 1

SQL example

SQL Queries

monthly\_sales

top\_products

SQL File 7\*

Limit to 1000 rows

10

-- Extract both year and month

-- Group the results so we can calculate aggregations per month-year

SELECT

EXTRACT(YEAR FROM STR\_TO\_DATE('Order Date', '%m/%d/%Y')) AS order\_year,

EXTRACT(MONTH FROM STR\_TO\_DATE('Order Date', '%m/%d/%Y')) AS order\_month

FROM superstore

GROUP BY order\_year, order\_month

LIMIT 10;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

Fetch rows:

	order_year	order_month
▶	2016	11
	2016	6
	2015	10
	2014	6
	2017	4
	2016	12
	2015	11
	2014	11
	2014	5
	2014	8

Administration

Schemas

Information

Schema: superstore\_db

Result 4

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 14	17:12:31	SELECT	EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month FROM s...	10 row(s) returned 0.000 sec / 0.000 sec
✗ 15	17:19:27	SELECT	Product ID, Order Date, EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y'))	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se... 0.000 sec
✗ 16	17:19:45	SELECT	Product ID, EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_ye...	Error Code: 1054. Unknown column 'Product' in field list 0.000 sec
✗ 17	17:20:08	SELECT *	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTR...	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu... 0.016 sec
✗ 18	17:20:14	SELECT *	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTR...	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu... 0.000 sec
✓ 19	17:20:18	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRA...	10 row(s) returned 0.031 sec / 0.000 sec
✓ 20	17:20:53	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRAC...	10 row(s) returned 0.016 sec / 0.000 sec

Object Info

Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 SQL example SQL Queries monthly\_sales top\_products SQL File 7 x

**SCHEMAS**

Filter objects

- ecommerce\_db
- superstore\_db**
  - Tables
    - superstore
  - Views
  - Stored Procedures
  - Functions
- sys

Administration Schemas

Information

Schema: superstore\_db

```
20 -- Calculate total revenue for each month
21 -- SUM() is used to add up all sales amounts for that period
22 • SELECT
23     EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,
24     EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,
25     SUM(Sales) AS total_revenue
26 FROM superstore
27 GROUP BY order_year, order_month;
```

Result Grid

	order_year	order_month	total_revenue
▶	2016	11	78454.90179999999
	2016	6	39628.19199999998
	2015	10	31382.15550000001
	2014	6	34508.99560000003
	2017	4	36020.17310000001
	2016	12	96075.06700000002
	2015	11	74699.03350000005
	2014	11	78297.24069999997
	2014	5	23634.667
	2014	8	27603.51249999999
	2017	7	44490.448000000004
	2015	9	63704.30200000004
	2016	1	18432.590999999993
	2017	10	77542.48319999997
	2015	12	74478.47920000007
	2017	9	86487.30600000004
	2016	7	39108.00799999997
	2016	3	50832.54900000002
	2014	10	31394.94099999998

Result 5 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✖ 16	17:19:45	SELECT Product ID, EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,	Error Code: 1054. Unknown column 'Product' in field list	0.000 sec
✖ 17	17:20:08	SELECT *, EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated column 'superstore.Sales'	0.016 sec
✖ 18	17:20:14	SELECT *, EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated column 'superstore.Sales'	0.000 sec
✔ 19	17:20:18	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	10 row(s) returned	0.031 sec / 0.000 sec
✔ 20	17:20:53	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	10 row(s) returned	0.016 sec / 0.000 sec
✖ 21	17:22:13	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.015 sec
✔ 22	17:22:32	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,	48 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 SQL example SQL Queries monthly\_sales top\_products SQL File 7 x

SCHEMAS

Filter objects

ecommerce\_db

superstore\_db

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superstore

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Stored Procedures

Functions

sys

Administration Schemas

Information

Schema: superstore\_db

```
29 -- Count distinct order IDs to get order volume
30 -- COUNT(DISTINCT) ensures that multiple products in the same order are only counted once
31 • SELECT
32     EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,
33     EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,
34     COUNT(DISTINCT "Order ID") AS order_volume
35 FROM superstore
36 GROUP BY order_year, order_month;
37
```

Result Grid

	order_year	order_month	order_volume
▶	2014	1	1
	2014	2	1
	2014	3	1
	2014	4	1
	2014	5	1
	2014	6	1
	2014	7	1
	2014	8	1
	2014	9	1
	2014	10	1
	2014	11	1
	2014	12	1
	2015	1	1
	2015	2	1
	2015	3	1
	2015	4	1
	2015	5	1
	2015	6	1

Result 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
17	17:20:08	SELECT *, EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTR...	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu...	0.016 sec
18	17:20:14	SELECT *, EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTR...	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu...	0.000 sec
19	17:20:18	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRA...	10 row(s) returned	0.031 sec / 0.000 sec
20	17:20:53	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	10 row(s) returned	0.016 sec / 0.000 sec
21	17:22:13	SELECT EXTRACT(YEAR FROM TO_DATE("Order Date", "MM/DD/YYYY")) AS order_year, EXTRACT(...	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.015 sec
22	17:22:32	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	48 row(s) returned	0.015 sec / 0.000 sec
23	17:23:36	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	48 row(s) returned	0.031 sec / 0.000 sec

Object Info Session

Read Only



Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 SQL example SQL Queries monthly\_sales top\_products SQL File 7 x

SCHEMAS

Filter objects

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  - Functions
- sys

Administration Schemas

Information

Schema: superstore\_db

```
38 -- Sort the output so it shows in chronological order
39 -- ORDER BY ensures results are easier to read and analyze
40 • SELECT
41     EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,
42     EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,
43     SUM(Sales) AS total_revenue,
44     COUNT(DISTINCT "Order ID") AS order_volume
45 FROM superstore
46 GROUP BY order_year, order_month
47 ORDER BY order_year, order_month;
```

Result Grid

	order_year	order_month	total_revenue	order_volume
▶	2014	1	14161.348999999998	1
	2014	2	4119.816	1
	2014	3	55526.199000000015	1
	2014	4	28139.560999999994	1
	2014	5	23634.666999999998	1
	2014	6	34508.995600000003	1
	2014	7	33500.872999999999	1
	2014	8	27603.512499999999	1
	2014	9	81496.806800000002	1
	2014	10	31394.940999999998	1
	2014	11	78297.240700000001	1
	2014	12	69379.836499999999	1
	2015	1	18085.1156000000012	1
	2015	2	11924.271999999999	1
	2015	3	38621.292	1
	2015	4	32640.482499999998	1
	2015	5	29325.9705000000003	1

Result 7 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✖ 18	17:20:14	SELECT *, EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTR...	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu...	0.000 sec
✔ 19	17:20:18	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRA...	10 row(s) returned	0.031 sec / 0.000 sec
✔ 20	17:20:53	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	10 row(s) returned	0.016 sec / 0.000 sec
✖ 21	17:22:13	SELECT EXTRACT(YEAR FROM TO_DATE("Order Date", "MM/DD/YYYY")) AS order_year, EXTRACT(...	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.015 sec
✔ 22	17:22:32	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	48 row(s) returned	0.015 sec / 0.000 sec
✔ 23	17:23:36	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	48 row(s) returned	0.031 sec / 0.000 sec
✔ 24	17:25:31	SELECT EXTRACT(YEAR FROM STR_TO_DATE("Order Date", "%m/%d/%Y")) AS order_year, EXTRAC...	48 row(s) returned	0.031 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

- Filter objects
- ecommerce\_db
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  - Stored Procedures
  - Functions
- sys

Query 1 SQL example SQL Queries monthly\_sales top\_products SQL File 7\* x

Limit to 1000 rows

```
49 -- Filter to show results only for a certain date range
50 -- The WHERE clause is used here to restrict the time period
51 • SELECT
52     EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,
53     EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,
54     SUM(Sales) AS total_revenue,
55     COUNT(DISTINCT "Order ID") AS order_volume
56 FROM superstore
57 WHERE STR_TO_DATE('Order Date', '%m/%d/%Y') BETWEEN '2017-01-01' AND '2017-12-31'
58 GROUP BY order_year, order_month
59 ORDER BY order_year, order_month;
```

Result Grid

	order_year	order_month	total_revenue	order_volume
▶	2017	1	43860.28600000001	1
	2017	2	20262.322399999997	1
	2017	3	58739.223799999985	1
	2017	4	36020.17310000001	1
	2017	5	44095.3522	1
	2017	6	52242.5617	1
	2017	7	44490.448000000004	1
	2017	8	62643.40799999998	1
	2017	9	86487.306000000004	1
	2017	10	77542.48319999997	1
	2017	11	117383.381000000004	1
	2017	12	81227.6158	1

Administration Schemas

Information

Schema: superstore\_db

Result 8 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	17:20:53	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	10 row(s) returned	0.016 sec / 0.000 sec
21	17:22:13	SELECT EXTRACT(YEAR FROM TO_DATE('Order Date', 'MM/DD/YYYY')) AS order_year, EXTRACT(...	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.015 sec
22	17:22:32	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	48 row(s) returned	0.015 sec / 0.000 sec
23	17:23:36	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	48 row(s) returned	0.031 sec / 0.000 sec
24	17:25:31	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	48 row(s) returned	0.031 sec / 0.000 sec
25	17:35:58	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.016 sec
26	17:36:25	SELECT EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT...	12 row(s) returned	0.047 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

ecommerce\_db

superstore\_db

Tables

superstore

Views

Stored Procedures

Functions

sys

Query 1 SQL example SQL Queries monthly\_sales top\_products SQL File 7 x

Limit to 1000 rows

```
58 GROUP BY order_year, order_month
59 ORDER BY order_year, order_month;
60
61 -- Monthly Sales Trend Analysis with additional business metrics
62 • SELECT
63     EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year,
64     EXTRACT(MONTH FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_month,
65     Region,
66     Category,
67     SUM(Sales) AS total_revenue, -- Total sales in dollars
68     COUNT(DISTINCT "Order ID") AS order_volume, -- Unique orders
69     SUM(Quantity) AS total_quantity, -- Total items sold
70     SUM(Profit) AS total_profit -- Total profit
71 FROM superstore
72 GROUP BY order_year, order_month, Region, Category
73 ORDER BY order_year, order_month, Region, Category;
```

Administration Schemas

Information

Schema: superstore\_db

Result Grid

order_year	order_month	Region	Category	total_revenue	order_volume	total_quantity	total_profit
2014	1	Central	Furniture	506.358	1	11	20.923499999999997
2014	1	Central	Office Supplies	966.85	1	41	73.31200000000003
2014	1	Central	Technology	31.2	1	3	9.75
2014	1	East	Furniture	199.00400000000002	1	12	-21.605800000000002
2014	1	East	Office Supplies	109.042	1	17	11.973700000000001
2014	1	East	Technology	124.2	1	3	-31.05
2014	1	South	Furniture	4378.728	1	32	1130.2567999999999
2014	1	South	Office Supplies	1919.3540000000003	1	49	321.66239999999993
2014	1	South	Technology	2987.89	1	39	877.0736
2014	1	West	Furniture	1158.435	1	15	-324.10799999999995
2014	1	West	Office Supplies	1780.288	1	49	348.5009
2014	2	Central	Furniture	106.37	1	10	10.8093
2014	2	Central	Office Supplies	262.654	1	47	1.9793999999999974

Result 9 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
24	17:25:31	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT... 48 row(s) returned	0.031 sec / 0.000 sec
25	17:35:58	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT... Error Code: 1305. FUNCTION superstore_db.TO_DATE does not exist	0.016 sec
26	17:36:25	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT... 12 row(s) returned	0.047 sec / 0.000 sec
27	17:38:56	SELECT	EXTRACT(YEAR FROM STR_TO_DATE('Order Date', '%m/%d/%Y')) AS order_year, EXTRACT... 573 row(s) returned	0.047 sec / 0.000 sec

Object Info Session

Read Only

Result Grid

Form Editor

Field Types