

Nolwandle Mkwanazi

Coding Practical 1: Basic SQL Syntax

Load data from cloud storage SalesNM.sql +

My Workspace > SalesNM.sql

ACCOUNTADMIN • COMPUTE_WH (X-Small) Choose database ...

```
1 SELECT
2 *
3 FROM
4 sales2025.retail2025.retail_sales_dataset;
```

Results (1 minute ago)

Table Chart 1,000 rows 50ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL
1	1	2023-11-24	CUST001	Male	34	Beauty	3	50	
2	2	2023-02-27	CUST002	Female	26	Clothing	2	500	
3	3	2023-01-13	CUST003	Male	50	Electronics	1	30	
4	4	2023-05-21	CUST004	Male	37	Clothing	1	500	
5	5	2023-05-06	CUST005	Male	30	Beauty	2	50	
6	6	2023-04-25	CUST006	Female	45	Beauty	1	30	
7	7	2023-03-13	CUST007	Male	46	Clothing	2	25	
8	8	2023-02-22	CUST008	Male	30	Electronics	4	25	
9	9	2023-12-13	CUST009	Male	63	Electronics	2	300	
10	10	2023-10-07	CUST010	Female	52	Clothing	4	50	

Query History

Load data from cloud storage SalesNM.sql +

My Workspace > SalesNM.sql

ACCOUNTADMIN • COMPUTE_WH (X-Small) Choose database ...

```
5 SELECT
6 TRANSACTION_ID,
7 DATE,
8 CUSTOMER_ID
9 FROM
10 sales2025.retail2025.retail_sales_dataset;
```

Results (just now)

Table Chart 1,000 rows 67ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID
1	1	2023-11-24	CUST001
2	2	2023-02-27	CUST002
3	3	2023-01-13	CUST003
4	4	2023-05-21	CUST004
5	5	2023-05-06	CUST005
6	6	2023-04-25	CUST006
7	7	2023-03-13	CUST007
8	8	2023-02-22	CUST008
9	9	2023-12-13	CUST009

Query History

My Workspace > Untitled 1

```
1 select
2 col
3 from
4 table
5 limit
6 100;
```

Feedback

Load data from cloud storage

SalesNM.sql

+

My Workspace > SalesNM.sql

ACCOUNTADMIN • COMPUTE_WH (X-Small) Choose database ...

My W

1

9 FROM sales2025.retail2025.retail_sales_dataset;
10
11 SELECT
12 DISTINCT PRODUCT_CATEGORY
13 FROM
14 sales2025.retail2025.retail_sales_dataset;

Results (just now)

Table Chart

3 rows 40ms

PRODUCT_CATEGORY

1 Clothing
2 Beauty
3 Electronics

Load data from cloud storage

SalesNM.sql

+

My Workspace > SalesNM.sql

ACCOUNTADMIN • COMPUTE_WH (X-Small) Choose database ...

My V

1

14 sales2025.retail2025.retail_sales_dataset;
15
16 SELECT
17 DISTINCT GENDER
18 FROM
19 sales2025.retail2025.retail_sales_dataset;
20 SELECT

Results (just now)

Table Chart

2 rows 35ms

GENDER

1 Male
2 Female

Load data from cloud storage

SalesNM.sql

+

My Workspace > SalesNM.sql

ACCOUNTADMIN • COMPUTE_WH (X-Small) Choose database ...

My V

1

19 SELECT
20 *
21 FROM
22 sales2025.retail2025.retail_sales_dataset
23 WHERE
24 AGE > 40;

Results (just now)

Table Chart

534 rows 42ms

	#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	3	2023-01-13	CUST003	Male	50	Electronics	1	30	30	
2	6	2023-04-25	CUST006	Female	45	Beauty	1	30	30	
3	7	2023-03-13	CUST007	Male	46	Clothing	2	25	50	
4	9	2023-12-13	CUST009	Male	63	Electronics	2	300	600	
5	10	2023-10-07	CUST010	Female	52	Clothing	4	50	200	
6	14	2023-01-17	CUST014	Male	64	Clothing	4	30	120	
7	15	2023-01-16	CUST015	Female	42	Electronics	4	500	2000	
8	18	2023-04-30	CUST018	Female	47	Electronics	2	25	50	
9	19	2023-09-16	CUST019	Female	62	Clothing	2	25	50	

NM Query History

```

25 SELECT
26 *
27 FROM
28 sales2025.retail2025.retail_sales_dataset
29 WHERE
30 "PRICE_PER_UNIT" BETWEEN 100
31 AND 500;

```

Results (just now)

Table Chart 396 rows 46ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	2	2023-02-27	CUST002	Female	26	Clothing	2	500	1000
2	4	2023-05-21	CUST004	Male	37	Clothing	1	500	500
3	9	2023-12-13	CUST009	Male	63	Electronics	2	300	600
4	13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500
5	15	2023-01-16	CUST015	Female	42	Electronics	4	500	2000
6	16	2023-02-17	CUST016	Male	19	Clothing	3	500	1500
7	20	2023-11-05	CUST020	Male	22	Clothing	3	300	900
8	21	2023-01-14	CUST021	Female	50	Beauty	1	500	500
9	24	2023-11-20	CUST024	Female	40	Clothing	1	200	200

```

32 SELECT
33 *
34 FROM
35 sales2025.retail2025.retail_sales_dataset
36 WHERE
37 "PRODUCT_CATEGORY" IN ('Beauty', 'Electronics');

```

Results (just now)

Table Chart 649 rows 45ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
2	3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
3	5	2023-05-06	CUST005	Male	30	Beauty	2	50	100
4	6	2023-04-25	CUST006	Female	45	Beauty	1	30	30
5	8	2023-02-22	CUST008	Male	30	Electronics	4	25	100
6	9	2023-12-13	CUST009	Male	63	Electronics	2	300	600
7	12	2023-10-30	CUST012	Male	35	Beauty	3	25	75
8	13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500
9	15	2023-01-16	CUST015	Female	42	Electronics	4	500	2000

```

38 SELECT
39 *
40 FROM
41 SALES2025.RETAIL2025.RETAIL_SALES_DATASET
42 WHERE
43 "PRODUCT_CATEGORY" <> 'Clothing';

```

Results (just now)

Table Chart 649 rows 26ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
2	3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
3	5	2023-05-06	CUST005	Male	30	Beauty	2	50	100
4	6	2023-04-25	CUST006	Female	45	Beauty	1	30	30
5	8	2023-02-22	CUST008	Male	30	Electronics	4	25	100
6	9	2023-12-13	CUST009	Male	63	Electronics	2	300	600
7	12	2023-10-30	CUST012	Male	35	Beauty	3	25	75
8	13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500

```

44 SELECT
45 *
46 FROM
47 SALES2025.RETAIL2025.RETAIL_SALES_DATASET
48 WHERE
49 QUANTITY >= 3;
50 SELECT

```

Results (just now)

Table Chart 504 rows 27ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
2	8	2023-02-22	CUST008	Male	30	Electronics	4	25	100
3	10	2023-10-07	CUST010	Female	52	Clothing	4	50	200
4	12	2023-10-30	CUST012	Male	35	Beauty	3	25	75
5	13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500
6	14	2023-01-17	CUST014	Male	64	Clothing	4	30	120
7	15	2023-01-16	CUST015	Female	42	Electronics	4	500	2000
8	16	2023-02-17	CUST016	Male	19	Clothing	3	500	1500

```

50 SELECT
51 COUNT(*) AS TOTAL_TRANSACTION
52 FROM
53 SALES2025.RETAIL2025.RETAIL_SALES_DATASET;
54 SELECT
55

```

Results (just now)

Table Chart 1 row 31ms

#	TOTAL_TRANSACTION
1	1000

```

54 SELECT
55 AVG(Age) AS average_age
56 FROM
57 SALES2025.RETAIL2025.RETAIL_SALES_DATASET;

```

Results (just now)

Table Chart 1 row 26ms

#	AVERAGE_AGE
1	41.392000

```

58 SELECT
59 SUM(Quantity) AS total_quantity_sold
60 FROM
61 SALES2025.RETAIL2025.RETAIL_SALES_DATASET;

```

Results (just now)

Table Chart 1 row 36ms

#	TOTAL_QUANTITY_SOLD
1	2514

```

62 SELECT
63 MAX(total_amount) AS total_amount_spent
64 FROM
65 SALES2025.RETAIL2025.RETAIL_SALES_DATASET;

```

Results (just now)

Table Chart 1 row 37ms

#	TOTAL_AMOUNT_SPENT
1	2000

```

66 SELECT
67     MIN(price_per_unit)
68 FROM
69     sales2025.retail2025.retail_sales_dataset;

```

Results (just now)

Table Chart 1 row 35ms

	# MIN(PRICE_PER_UNIT)
1	25

```

70 SELECT
71     COUNT(TRANSACTION_ID) AS number_of_transactions
72 FROM
73     SALES2025.RETAIL2025.RETAIL_SALES_DATASET
74 GROUP BY
75     product_category;

```

Results (just now)

Table Chart 3 rows 24ms

	# NUMBER_OF_TRANSACTIONS
1	307
2	351
3	342

```

76 SELECT
77     SUM(QUANTITY * PRICE_PER_UNIT) AS TOTAL_REVENUE
78 FROM
79     SALES2025.RETAIL2025.RETAIL_SALES_DATASET
80 GROUP BY
81     GENDER;

```

Results (just now)

Table Chart 2 rows 40ms

	# TOTAL_REVENUE
1	223160
2	232840

```

82 SELECT
83     SUM(TOTAL_AMOUNT) / SUM(QUANTITY) AS AVERAGE_PRICE_PER_UNIT
84 FROM
85     sales2025.retail2025.retail_sales_dataset
86 GROUP BY
87     PRODUCT_CATEGORY;

```

Results (just now)

Table Chart 3 rows 25ms

	# AVERAGE_PRICE_PER_UNIT
1	186.141375
2	174.026846
3	184.811543

```

88 SELECT
89     AVG (QUANTITY) AS AVERAGE_QUANTITY
90 FROM
91     SALES2025.RETAIL2025.RETAIL_SALES_DATASET
92 GROUP BY
93     PRODUCT_CATEGORY
94 HAVING
95     AVERAGE_QUANTITY > 2;

```

Results (just now)

Table Chart 3 rows 1.7s

	# AVERAGE_QUANTITY
1	2.511401
2	2.547009
3	2.482456

```

96 SELECT
97     CUSTOMER_ID,
98     TOTAL_AMOUNT, CASE
99         when (quantity * PRICE_PER_UNIT) > 1000 THEN 'HIGH'
100     ELSE 'LOW'
101     END AS spending_Level
102 FROM
103     sales2025.retail2025.retail_sales_dataset;

```

Results (just now)

Table Chart 1,000 rows 30ms

	CUSTOMER_ID	TOTAL_AMOUNT	SPENDING_LEVEL
1	CUST001	150	LOW
2	CUST002	1000	LOW
3	CUST003	30	LOW
4	CUST004	500	LOW
5	CUST005	100	LOW
6	CUST006	30	LOW

```

105 SELECT
106     CUSTOMER_ID,
107     AGE, CASE
108     WHEN AGE < 30 THEN 'Youth'
109     WHEN AGE BETWEEN 30 and 59
110     THEN 'Adult'
111     WHEN AGE >= 60 THEN 'Senior'
112     END AS AGE_GROUP
113 FROM
114     sales2025.retail2025.retail_sales_dataset

```

Results (just now)

Table Chart 1,000 rows 61ms

	CUSTOMER_ID	AGE	AGE_GROUP
1	CUST001	34	Adult
2	CUST002	26	Youth
3	CUST003	50	Adult
4	CUST004	37	Adult
5	CUST005	30	Adult
6	CUST006	45	Adult