

## ❖ SELECT Statement

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Untitled query Run Save Download Share This query will process 72.69 KB when r...

```
1 SELECT *
2 FROM `sales.shopping_trends`
3
4
5
6
7
8
9
```

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Transaction ID	Date	Customer ID	Gender	Age	Product Category
1	191	2023-10-18	CUST191	Male	64	Beauty
2	204	2023-09-28	CUST204	Male	39	Beauty
3	230	2023-04-23	CUST230	Male	54	Beauty

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2.

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```
1 SELECT 'Transaction ID', Date, 'CUSTOMER ID'
2 FROM `sales.shopping_trends`
3
4
5
6
7
8
9
```

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	f0_	Date	f1_
1	Transaction ID	2023-10-18	CUSTOMER ID
2	Transaction ID	2023-09-28	CUSTOMER ID
3	Transaction ID	2023-04-23	CUSTOMER ID
4	Transaction ID	2023-02-06	CUSTOMER ID

## ❖ SELECT DISTINCT Statement

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Untitled query

```
1 SELECT DISTINCT `Product Category`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
```

Run Save Download Share Query completed

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Product Category
1	Beauty
2	Clothing
3	Electronics

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Untitled query

```
1 SELECT Distinct Gender
2 FROM `sales.shopping_trends`
3
4
5
6
7
8
9
```

Run Save Download Share Query completed

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Gender
1	Male
2	Female

❖ WHERE Clause

5.

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Untitled query Run Save Download Share

```

1 SELECT *
2 FROM `Retailsales_dataset.shopping_habits`
3 WHERE Age >40

```

Query completed

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Transaction ID	Date	Customer ID	Gender	Age	Product Category
1	191	2023-10-18	CUST191	Male	64	Beauty
2	230	2023-04-23	CUST230	Male	54	Beauty
3	232	2023-02-06	CUST232	Female	43	Beauty

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Untitled query Run Save Download Share

```

1 SELECT *
2 FROM `Retailsales_dataset.shopping_habits`
3 WHERE 'Price Per Unit' Between 100 AND 500

```

Query completed

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Transaction ID	Date	Customer ID	Gender	Age	Product Category
1	52	2023-03-05	CUST052	Female	36	Beauty
2	79	2023-04-18	CUST079	Male	34	Beauty
3	174	2023-04-12	CUST174	Female	39	Beauty

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Untitled query Run Save Download Share Query completed

```

1 SELECT *
2 FROM `Retailsales_dataset.shopping_habits`
3 WHERE `Product Category` = 'Electronics' OR `Product Category` = 'Beauty'
4
5
6
7
8
9

```

Press Alt+F1 for accessibility options.

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Gender	Age	Product Category	Quantity	Price per Unit	Total Amc
55	Female	20	Beauty	1	50	
56	Male	61	Beauty	2	25	
57	Male	42	Beauty	1	50	

Results per page: 50 51 – 100 of 307

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Untitled query Run Save Download Share Query completed

```

1 SELECT *
2 FROM `Retailsales_dataset.shopping_habits`
3 WHERE `Product Category` = 'Clothing'
4
5
6
7
8
9

```

Press Alt+F1 for accessibility options.

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Transaction ID	Date	Customer ID	Gender	Age	Product Cate
1	44	2023-02-19	CUST044	Female	22	Clothing
2	103	2023-01-17	CUST103	Female	59	Clothing
3	185	2023-02-27	CUST185	Male	24	Clothing

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Untitled query Run Save Download Share Query completed

```

1 SELECT *
2 FROM `Retailsales_dataset.shopping_habits`
3 WHERE Quantity >=3
4
5
6
7
8
9

```

Press Alt+F1 for accessibility options.

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Transaction ID	Date	Customer ID	Gender	Age	Product Category
1	12	2023-10-30	CUST012	Male	35	Beauty
2	37	2023-05-23	CUST037	Female	18	Beauty
3	50	2023-08-24	CUST050	Female	27	Beauty

Results per page: 50 1 – 50 of 504

## ❖ Aggregate Functions

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Untitled query Run Save Download Share Query completed

```

1 SELECT COUNT (`Transaction ID`) AS `Total Transaction`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
9

```

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Total Transaction
1	1000

Results per page: 50 1 – 1 of 1

11.

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Untitled query Run Save Download Share Query completed

```

1 SELECT AVG (`Age`) AS `Average AGE`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
9

```

Press Alt+F1 for accessibility options.

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Average AGE
1	41.391999999999...

Results per page: 50 1 – 1 of 1

12.

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Untitled query Run Save Download Share Query completed

```

1 SELECT SUM (`Quantity`) AS `Total Quantity`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
9

```

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Total Quantity
1	2514

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Untitled query Run Save Download Share Query completed

```
1 SELECT MAX (`Total Amount`) AS `Max Total Amount`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
9
```

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Max Total Amount
1	2000

14.

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Untitled query Run Save Download Share Query completed

```
1 SELECT MIN (`Price per Unit`) AS `Min Price per Unit`
2 FROM `Retailsales_dataset.shopping_habits`
3
4
5
6
7
8
9
```

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Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Min Price per Unit
1	25

❖ GROUP BY Statement

15.

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Untitled query Run Save Download Share Query completed

```

1 SELECT `Product Category`, COUNT (`Transaction ID`) AS `Transaction Count`
2 FROM `Retailsales_dataset.shopping_habits`
3 GROUP BY `Product Category`

```

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Product Category	Transaction Count
1	Beauty	307
2	Clothing	351
3	Electronics	342

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Untitled query Run Save Download Share Query completed

```

1 SELECT `Gender`, SUM (`Total Amount`) AS `Total Revenue`
2 FROM `Retailsales_dataset.shopping_habits`
3 GROUP BY `Gender`

```

Query results Save results Open in

Job information Results Chart JSON Execution details Execution graph

Row	Gender	Total Revenue
1	Male	223160
2	Female	232840



17.

The screenshot shows the Google Cloud BigQuery console. The left sidebar contains the Explorer panel with a search bar and a list of resources under 'practical-457417', including Repositories, Queries, Notebooks, Data canvases, Data preparations, Pipelines, External connections, and the 'Retailsales\_dataset'. The main panel displays an 'Untitled query' with the following SQL code:

```
1 SELECT 'Product Category', AVG ('Price per Unit') AS 'Average Price'
2 FROM 'Retailsales_dataset.shopping_habits'
3 GROUP BY 'Product Category'
```

The query has been executed successfully, as indicated by the 'Query completed' status. Below the query editor, the 'Query results' section is visible, showing a table with 3 rows and 2 columns: 'Product Category' and 'Average Price'.

Row	Product Category	Average Price
1	Beauty	184.0553745928...
2	Clothing	174.2877492877...
3	Electronics	181.9005847953...

## ❖ HAVING Clause

18.

The screenshot shows the Google Cloud BigQuery console with a new query. The SQL code is as follows:

```
1 SELECT 'Product Category', SUM ('Total Amount') AS 'Total Revenue'
2 FROM 'Retailsales_dataset.shopping_habits'
3 GROUP BY 'Product Category'
4 HAVING 'Total Revenue' >10000
```

The query has been executed successfully. The 'Query results' section displays a table with 3 rows and 2 columns: 'Product Category' and 'Total Revenue'.

Row	Product Category	Total Revenue
1	Beauty	143515
2	Clothing	155580
3	Electronics	156905

19.

The screenshot shows the Google Cloud BigQuery interface. The Explorer on the left lists the project 'practical-457417' and its datasets, including 'Retailsales\_dataset'. The main panel displays an 'Untitled query' with the following SQL code:

```
1 SELECT 'Product Category', AVG ('Quantity') AS 'Average Quantity'
2 FROM 'Retailsales_dataset.shopping_habits'
3 GROUP BY 'Product Category'
4 HAVING 'Average Quantity' >2
```

The query has been executed successfully, as indicated by the 'Query completed' status. The results are displayed in a table with the following data:

Row	Product Category	Average Quantity
1	Beauty	2.511400651465...
2	Clothing	2.547008547008...
3	Electronics	2.482456140350...

## ❖ CASE Statement

20.

The screenshot shows the Google Cloud BigQuery interface. The Explorer on the left lists the project 'practical-457417' and its datasets, including 'Retailsales\_dataset'. The main panel displays an 'Untitled query' with the following SQL code:

```
1 SELECT 'Transaction ID',
2 CASE
3 WHEN 'TOTAL AMOUNT' >1000 THEN 'High'
4 ELSE 'Low'
5 END AS 'Spending level'
6 FROM 'Retailsales_dataset.shopping_habits'
```

The query has been executed successfully, as indicated by the 'Query completed' status. The results are displayed in a table with the following data:

Row	Transaction ID	Spending level
1	191	Low
2	204	Low
3	230	Low
4	232	Low

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Untitled query Run Save Download Share Query completed

```

1 SELECT 'Customer ID',
2       'Age',
3       CASE
4         WHEN 'Age' < 30 THEN 'Youth'
5         WHEN 'Age' BETWEEN 30 AND 59 THEN 'Adult'
6         WHEN 'Age' >= 60 THEN 'Senior'
7       END AS Age_Group
8 FROM `Retailsales_dataset.shopping_habits`
9
10
11
12

```

Press Alt+F1 for accessibility options.

Query results Save results Open in

Job information	Results	Chart	JSON	Execution details	Execution graph
Row	Customer ID	Age	Age_Group		
1	CUST191	64	Senior		
2	CUST204	39	Adult		
3	CUST230	54	Adult		
4	CUST232	43	Adult		