Assignment 2. Using a Dimensional Model with the SaleCO Data Warehouse (DSCC server)

1. Write and execute the SQL command to list the total sales by region and customer. Your output should be sorted by region and customer.

```
SELECT
   Dwregion.reg_name AS Region,
   Dwcustomer.cus_code AS Customer,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwcustomer ON Dwdaysalesfact.cus_code = Dwcustomer.cus_code
JOIN
   Dwregion ON Dwcustomer.reg_id = Dwregion.reg_id
GROUP BY
   Dwregion.reg_name,
   Dwcustomer.cus_code
ORDER BY
   Dwregion.reg_name,
   Dwcustomer.cus_code;
```

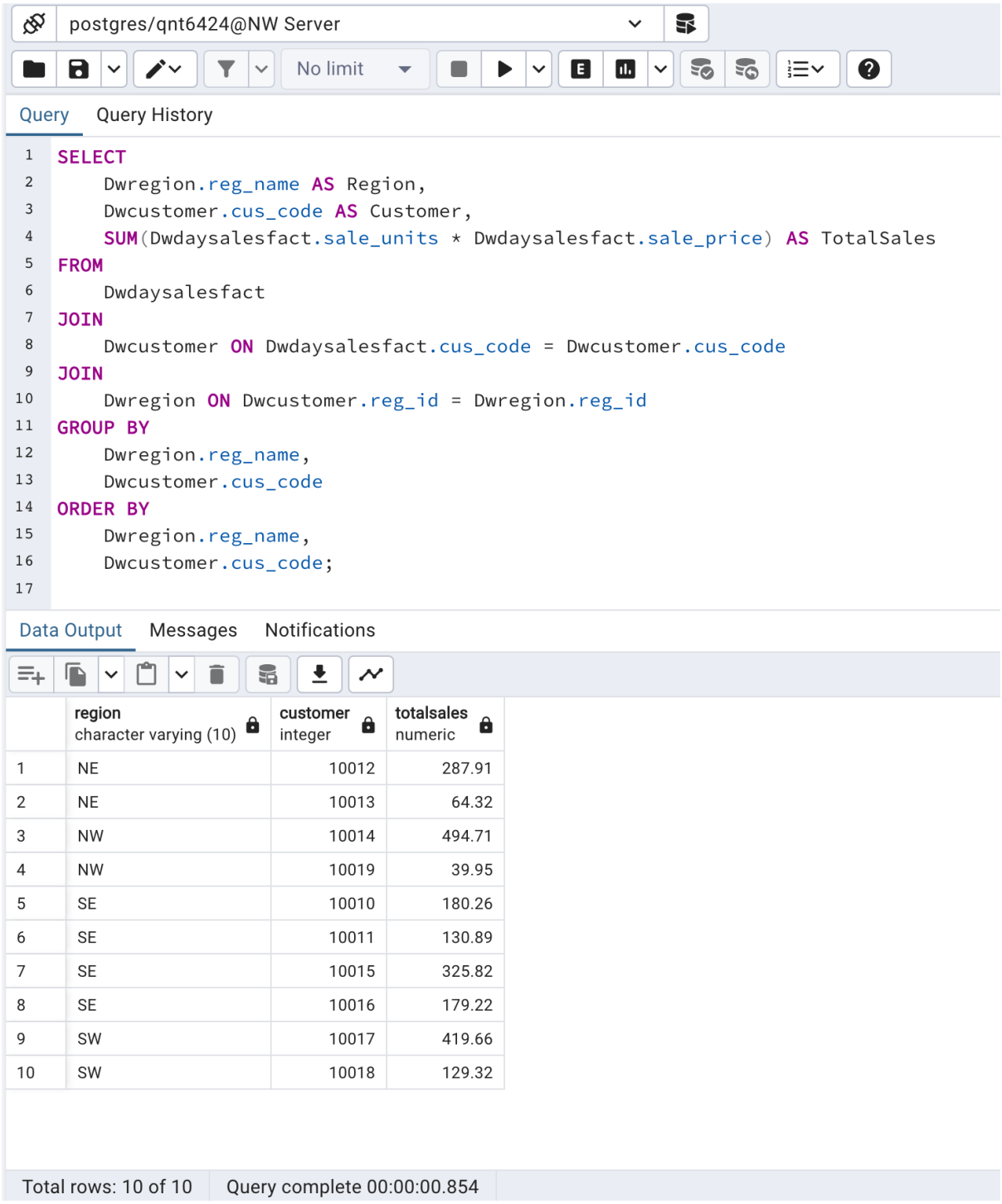
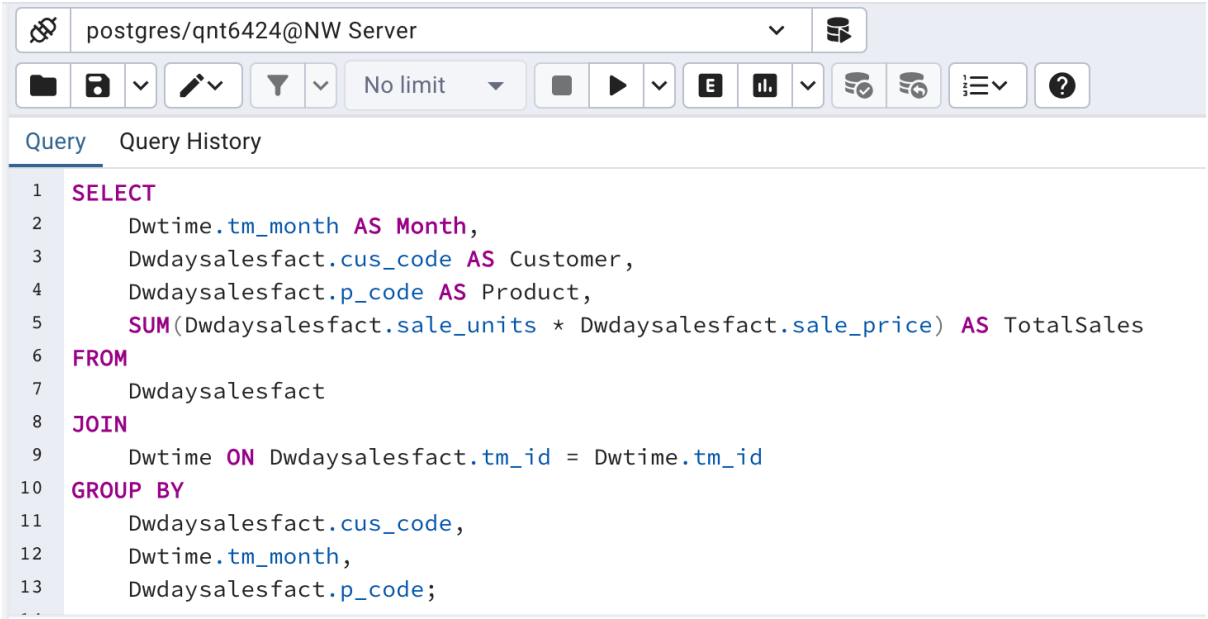

postgres/qnt6424@NW Server
No limit
Query
Query History
SELECT
Dwregion.reg_name AS Region,
Dwcustomer.cus_code AS Customer,
SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
Dwdaysalesfact
JOIN
Dwcustomer ON Dwdaysalesfact.cus_code = Dwcustomer.cus_code
JOIN
Dwregion ON Dwcustomer.reg_id = Dwregion.reg_id
GROUP BY
Dwregion.reg_name,
Dwcustomer.cus_code
ORDER BY
Dwregion.reg_name,
Dwcustomer.cus_code;
Data Output
Messages
Notifications
region character varying (10)
customer integer
totalsales numeric
1 NE 10012 287.91
2 NE 10013 64.32
3 NW 10014 494.71
4 NW 10019 39.95
5 SE 10010 180.26
6 SE 10011 130.89
7 SE 10015 325.82
8 SE 10016 179.22
9 SW 10017 419.66
10 SW 10018 129.32
Total rows: 10 of 10
Query complete 00:00:00.854

Fig 1

2. Write and execute the SQL command to list the total sales by customer, month, and product.

```
SELECT
   Dwtime.tm_month AS Month,
   Dwdaysalesfact.cus_code AS Customer,
   Dwdaysalesfact.p_code AS Product,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
GROUP BY
   Dwdaysalesfact.cus_code,
   Dwtime.tm_month,
   Dwdaysalesfact.p_code;
```



Data Output | Messages | Notifications

	month integer	customer integer	product character varying (10)	totalsales numeric
1	10	10010	54778-2T	14.97
2	9	10018	2238/QPD	38.95
3	9	10014	2232/QTY	109.92
4	10	10014	WR3/TT3	359.85
5	9	10018	54778-2T	9.98
6	9	10016	PVC23DRT	29.35
7	10	10013	PVC23DRT	29.35
8	9	10015	54778-2T	9.98
9	9	10015	23109-HB	9.95
10	10	10010	23109-HB	19.90
11	9	10014	23109-HB	9.95

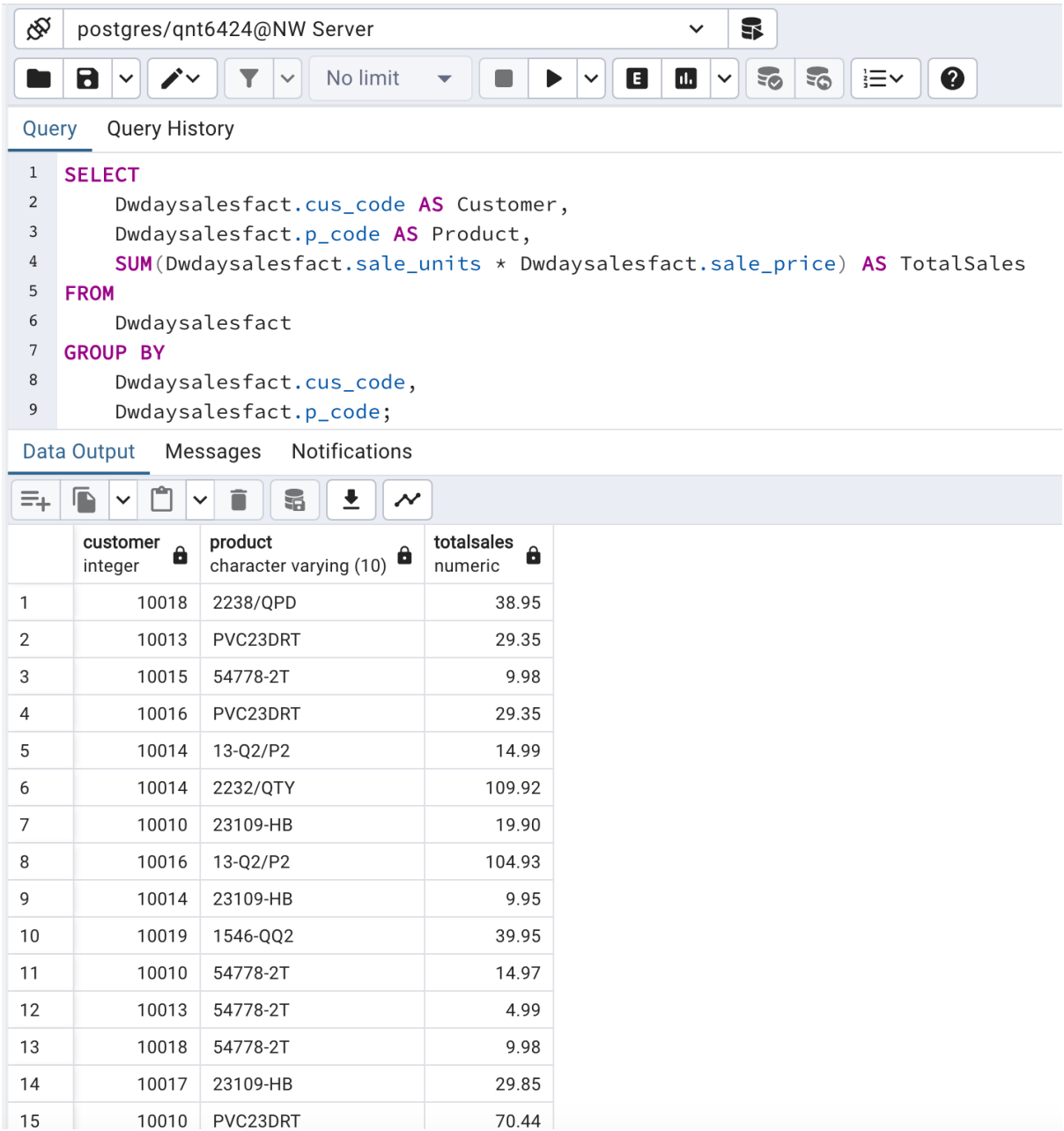
12	9	10016	1546-QQ2	39.95
13	9	10017	23109-HB	29.85
14	9	10017	54778-2T	14.97
15	9	10018	23109-HB	9.95
16	10	10011	SM-18277	20.97
17	9	10015	89-WRE-Q	256.99
18	9	10016	54778-2T	4.99
19	9	10015	2238/QPD	38.95
20	10	10012	89-WRE-Q	256.99
21	10	10012	23109-HB	9.95
22	10	10011	2232/QTY	109.92
23	9	10014	13-Q2/P2	14.99
24	9	10017	WR3/TT3	359.85
25	9	10019	1546-QQ2	39.95
26	9	10012	SM-18277	20.97
27	10	10013	13-Q2/P2	29.98
28	10	10010	13-Q2/P2	74.95
29	10	10010	PVC23DRT	70.44
30	9	10016	13-Q2/P2	104.93
31	9	10017	13-Q2/P2	14.99
32	10	10015	23109-HB	9.95
33	10	10013	54778-2T	4.99
34	9	10018	PVC23DRT	70.44

Total rows: 34 of 34 Query complete 00:00:01.127

Fig 2

3. Write and execute the SQL command to list the total sales by customer and by product.

```
SELECT
   Dwdaysalesfact.cus_code AS Customer,
   Dwdaysalesfact.p_code AS Product,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
GROUP BY
   Dwdaysalesfact.cus_code,
   Dwdaysalesfact.p_code;
```



	customer integer	product character varying (10)	totalsales numeric
1	10018	2238/QPD	38.95
2	10013	PVC23DRT	29.35
3	10015	54778-2T	9.98
4	10016	PVC23DRT	29.35
5	10014	13-Q2/P2	14.99
6	10014	2232/QTY	109.92
7	10010	23109-HB	19.90
8	10016	13-Q2/P2	104.93
9	10014	23109-HB	9.95
10	10019	1546-QQ2	39.95
11	10010	54778-2T	14.97
12	10013	54778-2T	4.99
13	10018	54778-2T	9.98
14	10017	23109-HB	29.85
15	10010	PVC23DRT	70.44

16	10017	54778-2T	14.97
17	10012	23109-HB	9.95
18	10018	PVC23DRT	70.44
19	10013	13-Q2/P2	29.98
20	10011	SM-18277	20.97
21	10015	23109-HB	19.90
22	10012	89-WRE-Q	256.99
23	10011	2232/QTY	109.92
24	10010	13-Q2/P2	74.95
25	10016	54778-2T	4.99
26	10018	23109-HB	9.95
27	10012	SM-18277	20.97
28	10016	1546-QQ2	39.95
29	10015	89-WRE-Q	256.99
30	10017	WR3/TT3	359.85
31	10014	WR3/TT3	359.85
32	10015	2238/QPD	38.95
33	10017	13-Q2/P2	14.99

Total rows: 33 of 33 Query complete 00:00:03.730

Fig 3

4. Write and execute the SQL command to list the total sales by month and product category. Your output should be sorted by month and product category.

```
SELECT
   Dwtime.tm_month AS Month,
   Dwproduct.p_category AS ProductCategory,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
JOIN
   Dwproduct ON Dwdaysalesfact.p_code = Dwproduct.p_code
GROUP BY
   Dwtime.tm_month,
   Dwproduct.p_category
ORDER BY
   Dwtime.tm_month,
   Dwproduct.p_category;
```

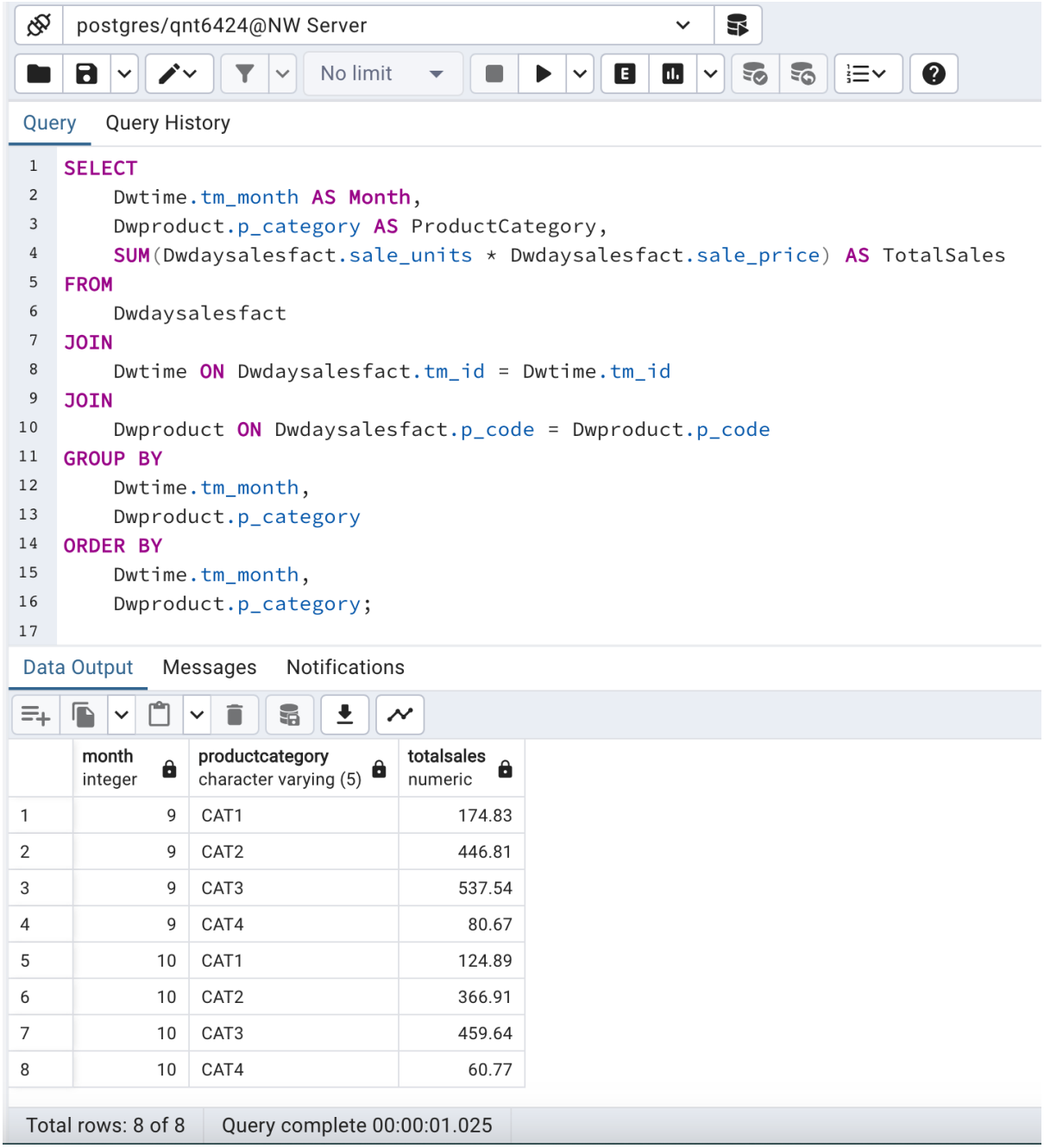

postgres/qnt6424@NW Server
No limit
Query
Query History
SELECT
Dwtime.tm_month AS Month,
Dwproduct.p_category AS ProductCategory,
SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
Dwdaysalesfact
JOIN
Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
JOIN
Dwproduct ON Dwdaysalesfact.p_code = Dwproduct.p_code
GROUP BY
Dwtime.tm_month,
Dwproduct.p_category
ORDER BY
Dwtime.tm_month,
Dwproduct.p_category;
Data Output
Messages
Notifications
month integer
productcategory character varying (5)
totalsales numeric
1 9 CAT1 174.83
2 9 CAT2 446.81
3 9 CAT3 537.54
4 9 CAT4 80.67
5 10 CAT1 124.89
6 10 CAT2 366.91
7 10 CAT3 459.64
8 10 CAT4 60.77
Total rows: 8 of 8
Query complete 00:00:01.025

Fig 4

5. Write and execute the SQL command to list the number of product sales (number of rows) and total sales by month. Your output should be sorted by month.

```
SELECT
   Dwtime.tm_month AS Month,
   COUNT(Dwdaysalesfact.*) AS NumberOfSales,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
GROUP BY
   Dwtime.tm_month
ORDER BY
   Dwtime.tm_month;
```

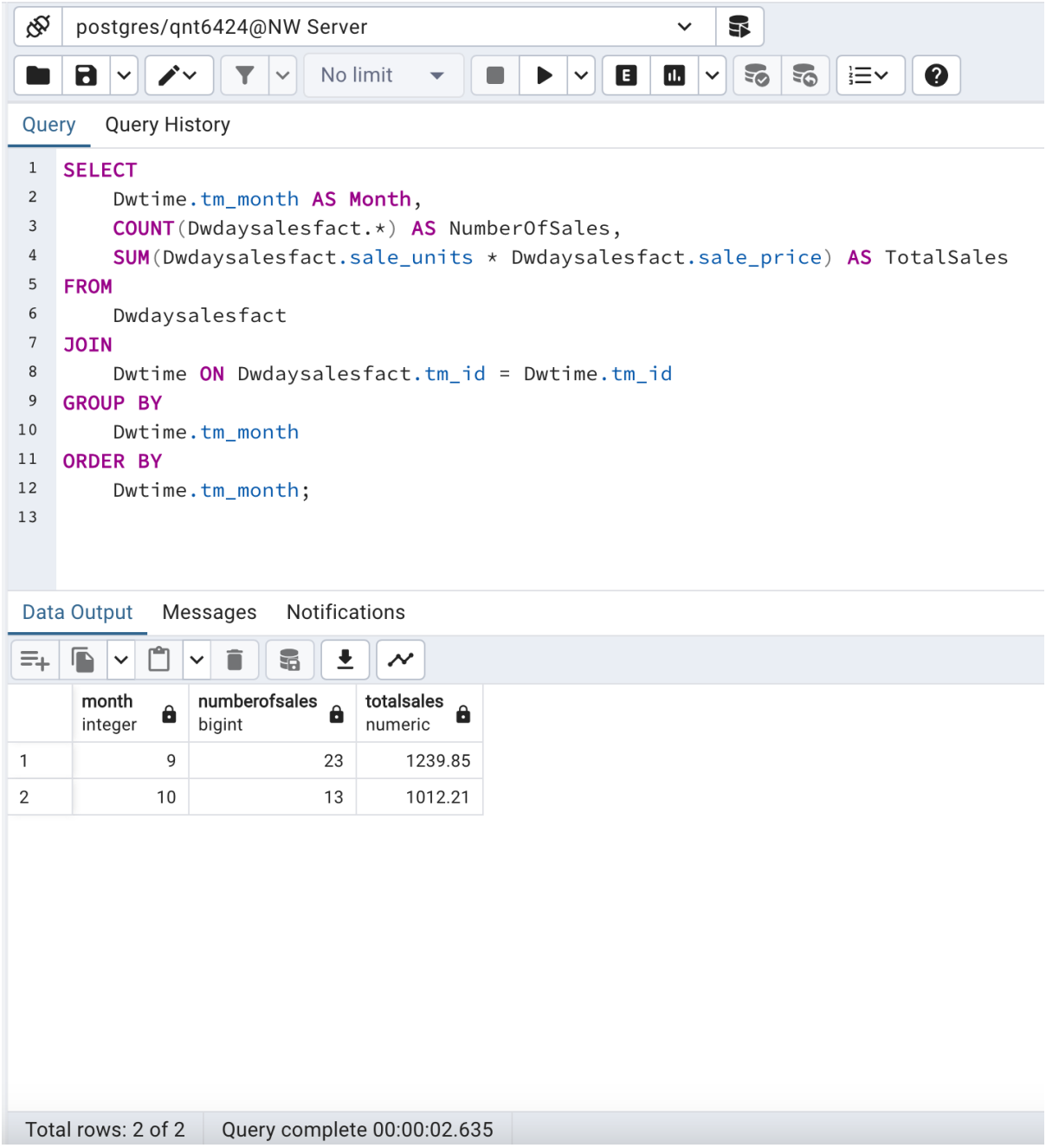

postgres/qnt6424@NW Server
No limit
Query
Query History
SELECT
Dwtime.tm_month AS Month,
COUNT(Dwdaysalesfact.*) AS NumberOfSales,
SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
Dwdaysalesfact
JOIN
Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
GROUP BY
Dwtime.tm_month
ORDER BY
Dwtime.tm_month;
Data Output
Messages
Notifications
month integer
numberofsales bigint
totalsales numeric
1 9 23 1239.85
2 10 13 1012.21
Total rows: 2 of 2
Query complete 00:00:02.635

Fig 5

6. Write and execute the SQL command to list the number of product sales and total sales by month and product category. Your output should be sorted by month and product category.

```
SELECT
   Dwtime.tm_month AS Month,
   Dwproduct.p_category AS ProductCategory,
   COUNT(Dwdaysalesfact.*) AS NumberOfSales,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
JOIN
   Dwproduct ON Dwdaysalesfact.p_code = Dwproduct.p_code
GROUP BY
   Dwtime.tm_month,
   Dwproduct.p_category
ORDER BY
   Dwtime.tm_month,
   Dwproduct.p_category;
```

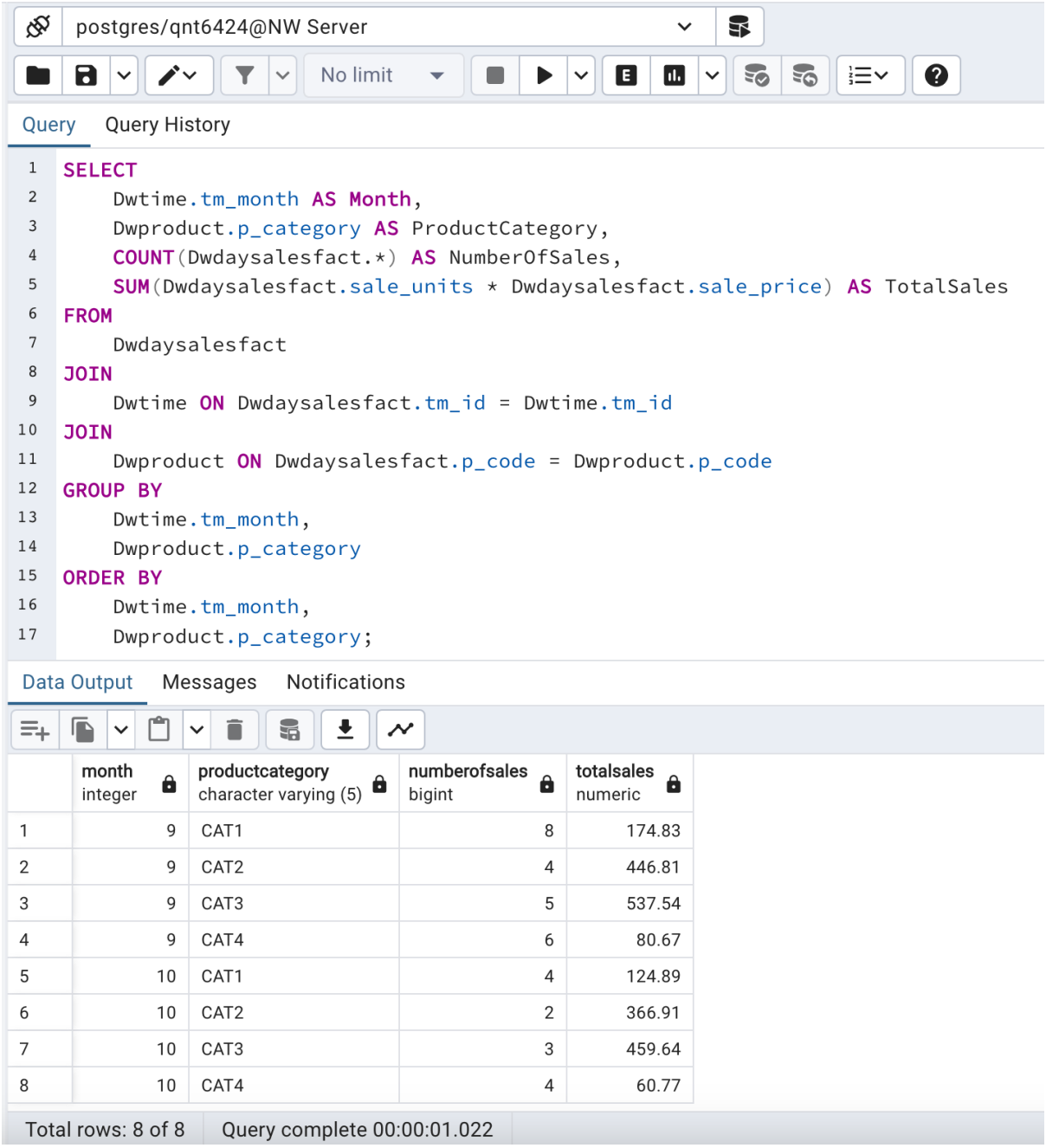
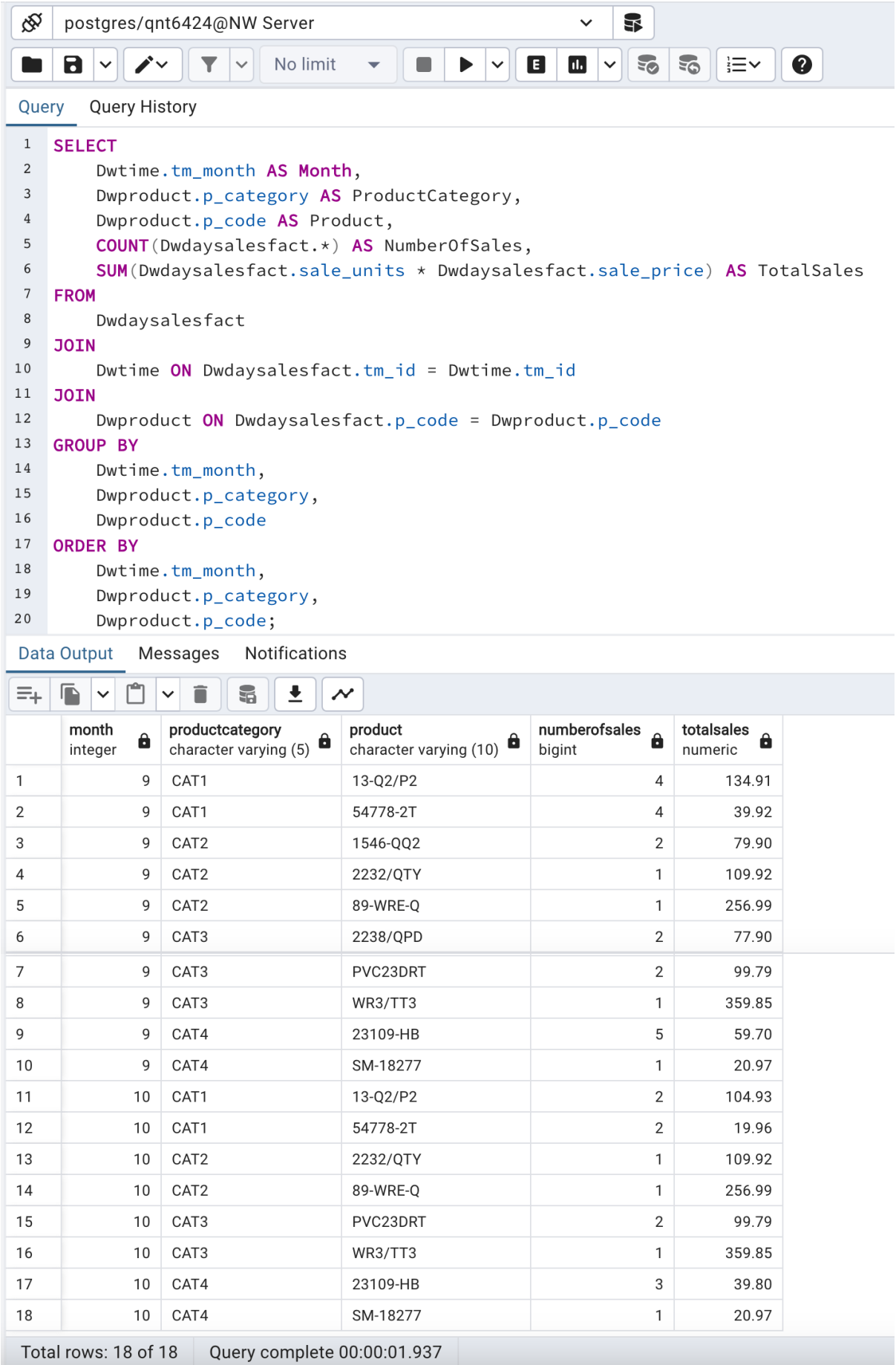

postgres/qnt6424@NW Server
No limit
Query
Query History
SELECT
Dwtime.tm_month AS Month,
Dwproduct.p_category AS ProductCategory,
COUNT(Dwdaysalesfact.*) AS NumberOfSales,
SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
Dwdaysalesfact
JOIN
Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
JOIN
Dwproduct ON Dwdaysalesfact.p_code = Dwproduct.p_code
GROUP BY
Dwtime.tm_month,
Dwproduct.p_category
ORDER BY
Dwtime.tm_month,
Dwproduct.p_category;
Data Output
Messages
Notifications
month integer
productcategory character varying (5)
numberofsales bigint
totalsales numeric
1 9 CAT1 8 174.83
2 9 CAT2 4 446.81
3 9 CAT3 5 537.54
4 9 CAT4 6 80.67
5 10 CAT1 4 124.89
6 10 CAT2 2 366.91
7 10 CAT3 3 459.64
8 10 CAT4 4 60.77
Total rows: 8 of 8
Query complete 00:00:01.022

Fig 6

7. Write and execute the SQL command to list the number of product sales (number of rows) and total sales by month, product category, and product. Your output should be sorted by month, product category and product.

```
SELECT
   Dwtime.tm_month AS Month,
   Dwproduct.p_category AS ProductCategory,
   Dwproduct.p_code AS Product,
   COUNT(Dwdaysalesfact.*) AS NumberOfSales,
   SUM(Dwdaysalesfact.sale_units * Dwdaysalesfact.sale_price) AS TotalSales
FROM
   Dwdaysalesfact
JOIN
   Dwtime ON Dwdaysalesfact.tm_id = Dwtime.tm_id
JOIN
   Dwproduct ON Dwdaysalesfact.p_code = Dwproduct.p_code
GROUP BY
   Dwtime.tm_month,
   Dwproduct.p_category,
   Dwproduct.p_code
ORDER BY
   Dwtime.tm_month,
   Dwproduct.p_category,
   Dwproduct.p_code;
```



	month integer	productcategory character varying (5)	product character varying (10)	numberofsales bigint	totalsales numeric
1	9	CAT1	13-Q2/P2	4	134.91
2	9	CAT1	54778-2T	4	39.92
3	9	CAT2	1546-QQ2	2	79.90
4	9	CAT2	2232/QTY	1	109.92
5	9	CAT2	89-WRE-Q	1	256.99
6	9	CAT3	2238/QPD	2	77.90
7	9	CAT3	PVC23DRT	2	99.79
8	9	CAT3	WR3/TT3	1	359.85
9	9	CAT4	23109-HB	5	59.70
10	9	CAT4	SM-18277	1	20.97
11	10	CAT1	13-Q2/P2	2	104.93
12	10	CAT1	54778-2T	2	19.96
13	10	CAT2	2232/QTY	1	109.92
14	10	CAT2	89-WRE-Q	1	256.99
15	10	CAT3	PVC23DRT	2	99.79
16	10	CAT3	WR3/TT3	1	359.85
17	10	CAT4	23109-HB	3	39.80
18	10	CAT4	SM-18277	1	20.97