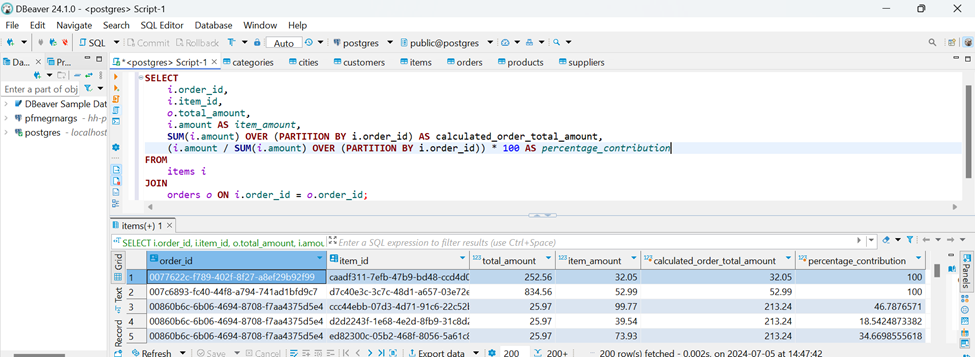
**BWT Task-05 Exercise**

**Submitted By: Abduhu Khan**

**Q1**

**Write a query to calculate the percentage contribution of each item's amount to its order's total amount, grouped by order\_id. (Topics: Partition BY)**



**SELECT**

*i*.order\_id,

*i*.item\_id,

*o*.total\_amount,

*i*.amount **AS** *item\_amount*,

**SUM**(*i*.amount) **OVER** (**PARTITION** **BY** i.order\_id) **AS** calculated\_order\_total\_amount,

(*i*.amount / **SUM**(*i*.amount) **OVER** (**PARTITION** **BY** i.order\_id)) \* 100 **AS** *percentage\_contribution*

**FROM**

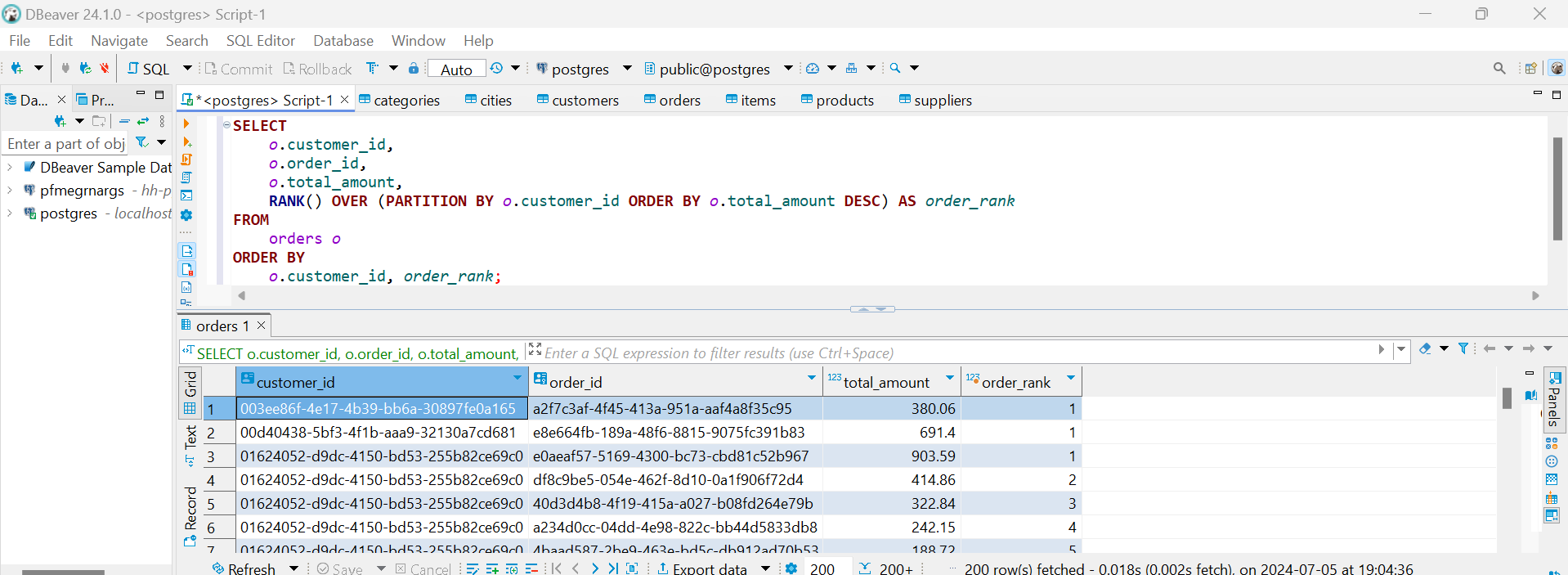
items *i*

**JOIN**

orders *o* **ON** *i*.order\_id = *o*.order\_id;

**Q2**

**Write a query to rank orders by their total amount within each customer, ordering them from highest to lowest total amount. (Topics: Window functions like RANK, PARTITION BY, and ORDER BY)**



**SELECT**

*o*.customer\_id,

*o*.order\_id,

*o*.total\_amount,

**RANK**() **OVER** (**PARTITION** **BY** *o*.customer\_id **ORDER** **BY** *o*.total\_amount **DESC**) **AS** *order\_rank*

**FROM**

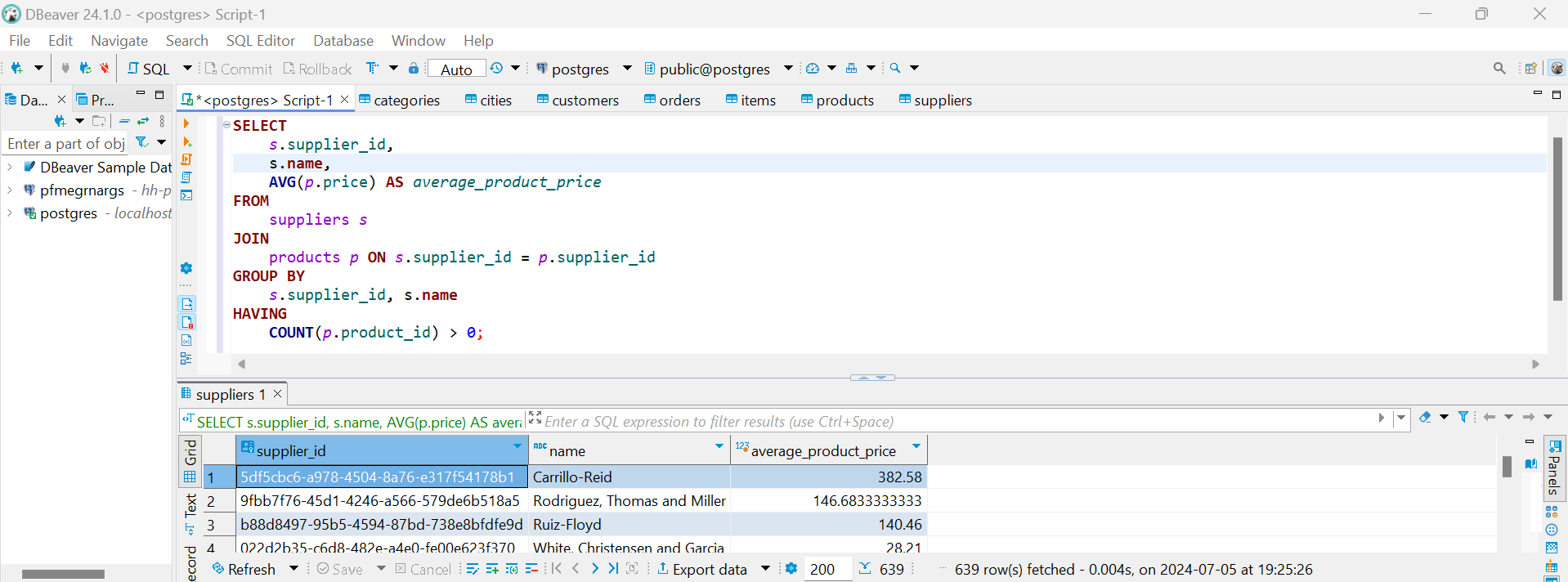
orders *o*

**ORDER** **BY**

*o*.customer\_id, *order\_rank*;

**Q3**

**Write a query to calculate the average price of products supplied by each supplier. Exclude suppliers who have no products in the result. (Topics: JOINS, AGGREGATE FUNCTIONS, GROUP BY)**



**SELECT**

*s*.supplier\_id,

s.**name**,

**AVG**(*p*.price) **AS** *average\_product\_price*

**FROM**

suppliers *s*

**JOIN**

products *p* **ON** *s*.supplier\_id = *p*.supplier\_id

**GROUP** **BY**

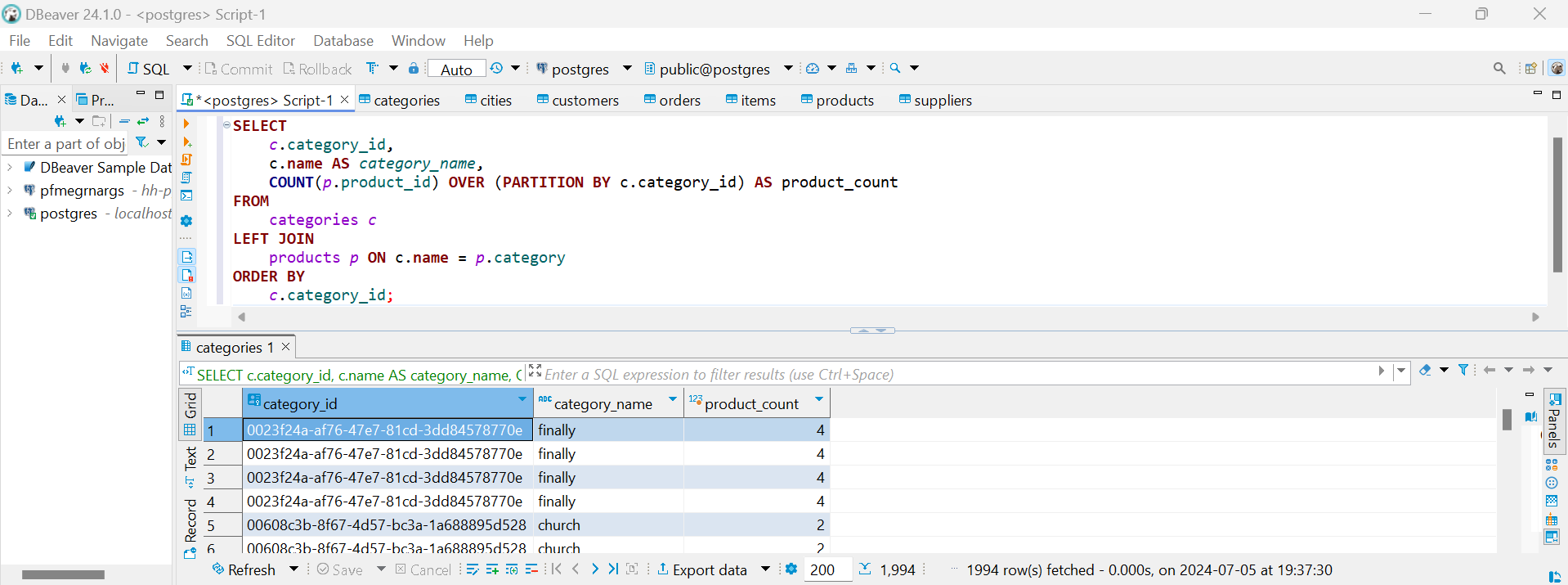
*s*.supplier\_id, s.**name**

**HAVING**

**COUNT**(*p*.product\_id) > 0;

**Q4**

**Write a query to count the number of products in each category. Include categories with zero products in the result set. (WINDOW FUNCTIONS, AGGREGATE FUNCTIONS, JOINS, GROUP BY)**



**SELECT**

*c*.category\_id,

c.**name** **AS** *category\_name*,

**COUNT**(*p*.product\_id) **OVER** (**PARTITION** **BY** c.category\_id) **AS** product\_count

**FROM**

categories *c*

**LEFT** **JOIN**

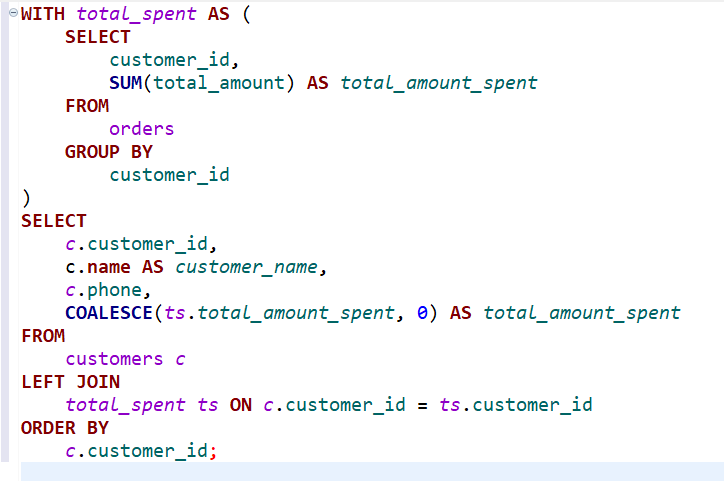
products *p* **ON** c.**name** = *p*.category

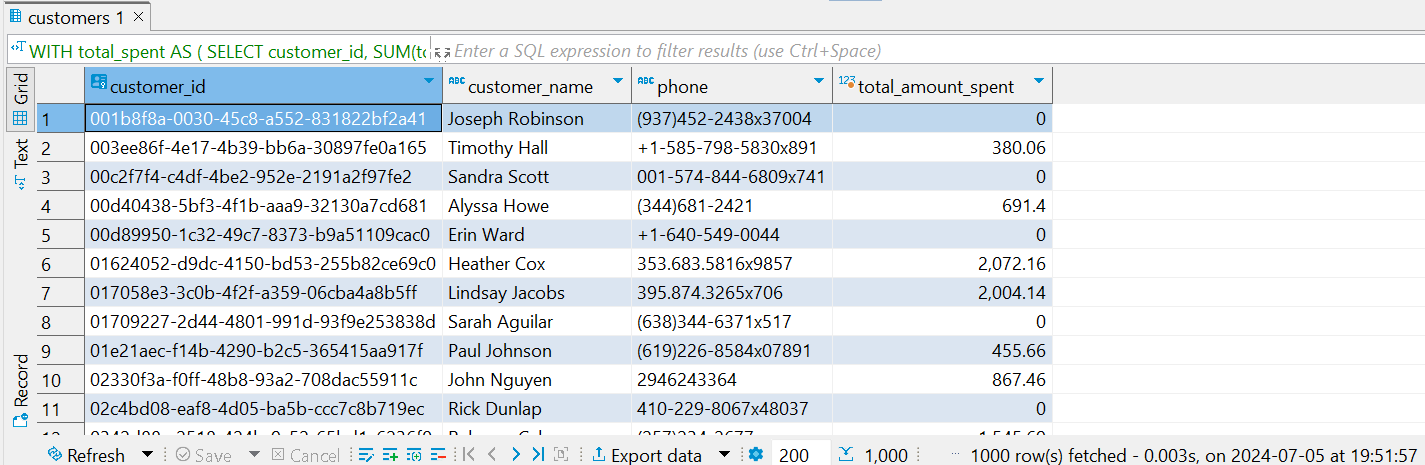
**ORDER** **BY**

*c*.category\_id;

**Q5**

**Write a query to retrieve the total amount spent by each customer, along with their name and phone number. Ensure customers with no orders also appear with a total amount of 0. (WINDOW FUNCTIONS, AGGREGATE FUNCTIONS, JOINS, GROUP BY)**





**WITH** *total\_spent* **AS** (

**SELECT**

customer\_id,

**SUM**(total\_amount) **AS** *total\_amount\_spent*

**FROM**

orders

**GROUP** **BY**

customer\_id

)

**SELECT**

*c*.customer\_id,

c.**name** **AS** *customer\_name*,

*c*.phone,

**COALESCE**(*ts*.*total\_amount\_spent*, 0) **AS** *total\_amount\_spent*

**FROM**

customers *c*

**LEFT** **JOIN**

*total\_spent* *ts* **ON** *c*.customer\_id = *ts*.customer\_id

**ORDER** **BY**

*c*.customer\_id;