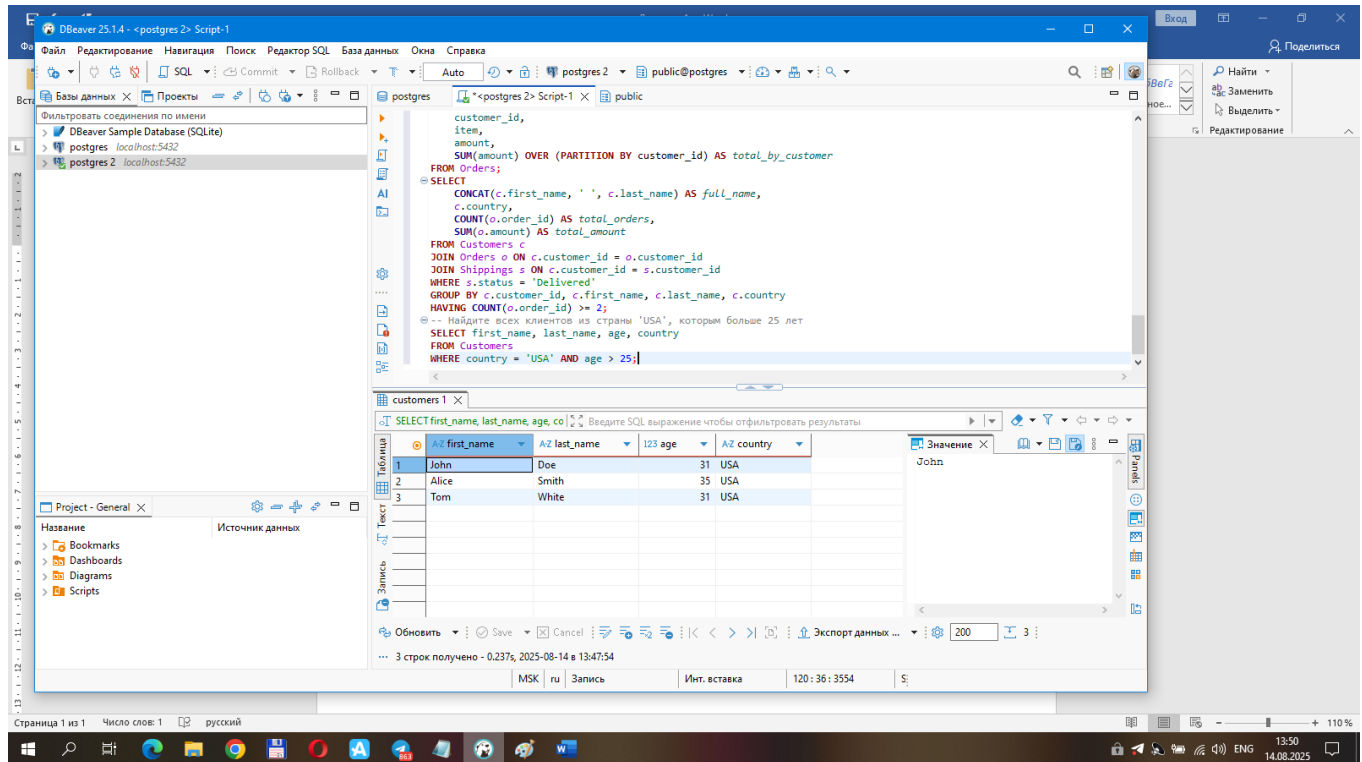


## Part\_1\_WHERE\_Task\_1



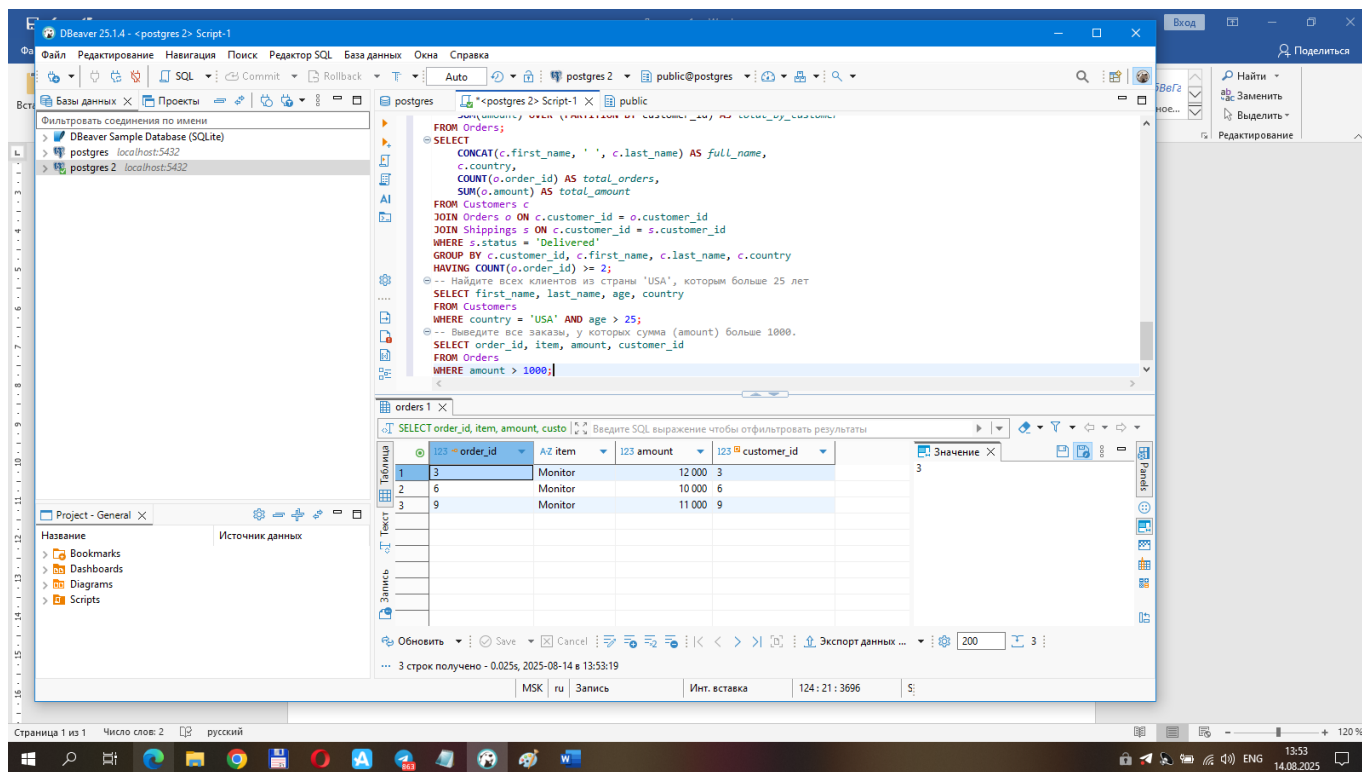
The screenshot shows the DBeaver 25.1.4 interface with a SQL script for Task 1. The script filters customers from the USA who are older than 25 and have at least 2 orders. The results table shows 3 rows: John Doe (31), Alice Smith (35), and Tom White (31), all from the USA.

```
customer_id,  
item,  
amount,  
SUM(o.amount) OVER (PARTITION BY customer_id) AS total_by_customer  
FROM Orders;  
-- SELECT  
-- CONCAT(c.first_name, ' ', c.last_name) AS full_name,  
-- c.country,  
-- COUNT(o.order_id) AS total_orders,  
-- SUM(o.amount) AS total_amount  
FROM Customers c  
JOIN Orders o ON c.customer_id = o.customer_id  
JOIN Shippings s ON c.customer_id = s.customer_id  
WHERE s.status = 'Delivered'  
GROUP BY c.customer_id, c.first_name, c.last_name, c.country  
HAVING COUNT(o.order_id) >= 2;  
-- Найдите всех клиентов из страны 'USA', которым больше 25 лет  
SELECT first_name, last_name, age, country  
FROM Customers  
WHERE country = 'USA' AND age > 25;
```

AZ first_name	AZ last_name	123 age	AZ country
1 John	Doe	31	USA
2 Alice	Smith	35	USA
3 Tom	White	31	USA

3 строк получено - 0.237s, 2025-08-14 в 13:47:54

## Part\_1\_WHERE\_Task\_2



The screenshot shows the DBeaver 25.1.4 interface with a SQL script for Task 2. The script filters orders with an amount greater than 1000. The results table shows 3 rows: order\_id 3 (Monitor, 12000, customer\_id 3), order\_id 6 (Monitor, 10000, customer\_id 6), and order\_id 9 (Monitor, 11000, customer\_id 9).

```
FROM Orders;  
-- SELECT  
-- CONCAT(c.first_name, ' ', c.last_name) AS full_name,  
-- c.country,  
-- COUNT(o.order_id) AS total_orders,  
-- SUM(o.amount) AS total_amount  
FROM Customers c  
JOIN Orders o ON c.customer_id = o.customer_id  
JOIN Shippings s ON c.customer_id = s.customer_id  
WHERE s.status = 'Delivered'  
GROUP BY c.customer_id, c.first_name, c.last_name, c.country  
HAVING COUNT(o.order_id) >= 2;  
-- Найдите всех клиентов из страны 'USA', которым больше 25 лет  
SELECT first_name, last_name, age, country  
FROM Customers  
WHERE country = 'USA' AND age > 25;  
-- Выведите все заказы, у которых сумма (amount) больше 1000.  
SELECT order_id, item, amount, customer_id  
FROM Orders  
WHERE amount > 1000;
```

123 order_id	AZ item	123 amount	123 customer_id
1 3	Monitor	12 000	3
2 6	Monitor	10 000	6
3 9	Monitor	11 000	9

3 строк получено - 0.025s, 2025-08-14 в 13:53:19

## Part\_2\_JOIN\_Task\_1

The screenshot shows the DBeaver 25.1.4 interface with a PostgreSQL script editor. The script contains several SQL queries. The first query calculates the total amount for each customer. The second query filters for customers from the USA who are older than 25. The third query filters for orders with a total amount greater than 1000. The fourth query joins the Customers and Orders tables to get a list of orders with customer names. The results are displayed in a table with columns: first\_name, last\_name, item, and amount.

```
SELECT (customer_id, SUM(o.amount)) AS total_amount
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
GROUP BY c.customer_id;

-- Найдите всех клиентов из страны 'USA', которым больше 25 лет
SELECT first_name, last_name, age, country
FROM Customers
WHERE country = 'USA' AND age > 25;

-- Выведите все заказы, у которых сумма (amount) больше 1000.
SELECT order_id, item, amount, customer_id
FROM Orders
WHERE amount > 1000;

-- Получите список заказов вместе с именем клиента, который сделал заказ.
SELECT c.first_name, c.last_name, o.item, o.amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id;
```

AZ first_name	AZ last_name	AZ item	123 amount
John	Reinhardt	Keyboard	400
John	Reinhardt	Mouse	300
David	Robinson	Monitor	12 000
John	Doe	Keyboard	400
Robert	Luna	Mousepad	250
Alice	Smith	Monitor	10 000
Alice	Smith	Keyboard	450
Michael	Brown	Mouse	350
Tom	White	Monitor	11 000
Emma	Green	Mousepad	300

Пример ожидаемого результата:

## Part\_2\_JOIN\_Task\_2

The screenshot shows the DBeaver 25.1.4 interface with a PostgreSQL script editor. The script contains several SQL queries. The first query filters for orders with a status of 'Delivered'. The second query filters for customers from the USA who are older than 25. The third query filters for orders with a total amount greater than 1000. The fourth query joins the Customers and Orders tables to get a list of orders with customer names. The fifth query joins the Customers and Shippings tables to get a list of shipments with customer names. The results are displayed in a table with columns: status, first\_name, and last\_name.

```
JOIN Shippings s ON c.customer_id = s.customer_id
WHERE s.status = 'Delivered'
GROUP BY c.customer_id, c.first_name, c.last_name, c.country
HAVING COUNT(o.order_id) >= 2;

-- Найдите всех клиентов из страны 'USA', которым больше 25 лет
SELECT first_name, last_name, age, country
FROM Customers
WHERE country = 'USA' AND age > 25;

-- Выведите все заказы, у которых сумма (amount) больше 1000.
SELECT order_id, item, amount, customer_id
FROM Orders
WHERE amount > 1000;

-- Получите список заказов вместе с именем клиента, который сделал заказ.
SELECT c.first_name, c.last_name, o.item, o.amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id;

-- Выведите список доставок со статусом и именем клиента.
SELECT s.status, c.first_name, c.last_name
FROM Shippings s
JOIN Customers c ON s.customer_id = c.customer_id;
```

AZ status	AZ first_name	AZ last_name
Pending	Robert	Luna
Pending	John	Reinhardt
Delivered	David	Robinson
Pending	Betty	Doe
Delivered	John	Doe
Delivered	Alice	Smith
Pending	Michael	Brown
Delivered	Tom	White
Pending	Sarah	Davis
Delivered	Emma	Green

## Part\_3\_GROUP\_BY\_Task\_1

The screenshot shows the DBeaver 25.1.4 interface with a SQL script editor. The script contains the following queries:

```

-- Найдите всех клиентов из страны 'USA', которым больше 25 лет
SELECT first_name, last_name, age, country
FROM Customers
WHERE country = 'USA' AND age > 25;

-- Выведите все заказы, у которых сумма (amount) больше 1000.
SELECT order_id, item, amount, customer_id
FROM Orders
WHERE amount > 1000;

-- Получите список заказов вместе с именем клиента, который сделал заказ.
SELECT c.first_name, c.last_name, o.item, o.amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id;

-- Выведите список доставок со статусом и именем клиента.
SELECT s.status, c.first_name, c.last_name
FROM Shippings s
JOIN Customers c ON s.customer_id = c.customer_id;

-- Подсчитайте количество клиентов в каждой стране
SELECT country, COUNT(*) AS count
FROM Customers
GROUP BY country;

```

The results table shows the following data:

country	count
UAE	2
UK	4
USA	4

## Part\_3\_GROUP\_BY\_Task\_2

The screenshot shows the DBeaver 25.1.4 interface with a SQL script editor. The script contains the following queries:

```

-- Выведите все заказы, у которых сумма (amount) больше 1000.
SELECT order_id, item, amount, customer_id
FROM Orders
WHERE amount > 1000;

-- Получите список заказов вместе с именем клиента, который сделал заказ.
SELECT c.first_name, c.last_name, o.item, o.amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id;

-- Выведите список доставок со статусом и именем клиента.
SELECT s.status, c.first_name, c.last_name
FROM Shippings s
JOIN Customers c ON s.customer_id = c.customer_id;

-- Подсчитайте количество клиентов в каждой стране
SELECT country, COUNT(*) AS count
FROM Customers
GROUP BY country;

-- Посчитайте общее количество заказов и среднюю сумму по каждому товару
SELECT
    item,
    COUNT(*) AS count,
    ROUND(AVG(amount), 2) AS avg_amount
FROM Orders
GROUP BY item;

```

The results table shows the following data:

item	count	avg_amount
Mouse	2	325
Keyboard	3	416,67
Mousepad	2	275
Monitor	3	11 000

## Part\_4\_ORDER\_BY\_Task\_1

The screenshot shows the DBeaver 25.1.4 interface with a SQL script in the editor. The script includes several SQL queries with comments in Russian. The first query is a JOIN of Customers, Shipmings, and Orders tables. The second query is a GROUP BY statement for Customers by country. The third query is a GROUP BY statement for Orders by item. The fourth query is a SELECT statement for Customers ordered by age. The results of the fourth query are displayed in a table.

```
JOIN Customers c ON o.customer_id = c.customer_id;
-- Выведите список доставок со статусом и именем клиента.
SELECT s.status, c.first_name, c.last_name
FROM Shipmings s
JOIN Customers c ON s.customer_id = c.customer_id;
-- Подсчитайте количество клиентов в каждой стране
SELECT country, COUNT(*) AS count
FROM Customers
GROUP BY country;
-- Посчитайте общее количество заказов и среднюю сумму по каждому товару
SELECT
    item,
    COUNT(*) AS count,
    ROUND(AVG(amount), 2) AS avg_amount
FROM Orders
GROUP BY item;
-- Выведите список клиентов, отсортированный по возрасту по убыванию
SELECT first_name, age
FROM Customers
ORDER BY age DESC;
```

AZ first_name	123 age
Michael	40
Alice	35
John	31
Tom	31
Sarah	29
Betty	28
Emma	27
John	25
David	22
Robert	22

10 строк получено - 0.050s, 2025-08-14 в 14:00:14

## Part\_5\_SUBQUERIES\_Task\_1

The screenshot shows the DBeaver 25.1.4 interface with a SQL script in the editor. The script includes several SQL queries with comments in Russian. The first query is a JOIN of Customers, Shipmings, and Orders tables. The second query is a GROUP BY statement for Customers by country. The third query is a GROUP BY statement for Orders by item. The fourth query is a SELECT statement for Customers ordered by age. The fifth query is a SELECT statement for Customers with a subquery in the WHERE clause. The results of the fifth query are displayed in a table.

```
JOIN Customers c ON o.customer_id = c.customer_id;
-- Выведите список доставок со статусом и именем клиента.
SELECT s.status, c.first_name, c.last_name
FROM Shipmings s
JOIN Customers c ON s.customer_id = c.customer_id;
-- Подсчитайте количество клиентов в каждой стране
SELECT country, COUNT(*) AS count
FROM Customers
GROUP BY country;
-- Посчитайте общее количество заказов и среднюю сумму по каждому товару
SELECT
    item,
    COUNT(*) AS count,
    ROUND(AVG(amount), 2) AS avg_amount
FROM Orders
GROUP BY item;
-- Выведите список клиентов, отсортированный по возрасту по убыванию
SELECT first_name, age
FROM Customers
ORDER BY age DESC;
-- Найдите всех клиентов, которые сделали заказ с максимальной суммой
SELECT c.first_name, c.last_name, o.amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id
WHERE o.amount = (SELECT MAX(amount) FROM Orders);
```

AZ first_name	AZ last_name	123 amount
David	Robinson	12 000

1 строк получено - 0.119s, 2025-08-14 в 14:01:07

## Part\_6\_WINDOW\_FUNCTIONS\_Task\_1

The screenshot shows the DBeaver 25.1.4 interface with a PostgreSQL database. The SQL editor contains a script for calculating running totals using window functions. The results table shows 10 rows of order data.

```
SELECT order_id, customer_id, item, amount, SUM(amount) OVER (PARTITION BY customer_id AS total_by_customer FROM Orders ORDER BY customer_id, order_id;
SELECT order_id, customer_id, item, amount, SUM(amount) OVER (PARTITION BY customer_id AS total_by_customer FROM Orders ORDER BY customer_id, order_id;
-- Для каждого заказа добавьте колонку с суммой всех заказов этого клиента
SELECT order_id, customer_id, item, amount, SUM(amount) OVER (PARTITION BY customer_id AS total_by_customer FROM Orders;
```

order_id	customer_id	item	amount	total_by_customer
1	1	Keyboard	400	400
2	1	Mousepad	250	650
3	1	Monitor	12000	12650
4	2	Keyboard	400	400
5	2	Mouse	300	700
6	2	Monitor	10000	10700
7	3	Keyboard	450	450
8	3	Mouse	350	800
9	3	Monitor	11000	11800
10	4	Mousepad	300	300

## Part\_7\_optional

The screenshot shows the DBeaver 25.1.4 interface with a PostgreSQL database. The SQL editor contains a complex query using window functions and joins. The results table shows 1 row of customer data.

```
SELECT CONCAT(c.first_name, ' ', c.last_name) AS full_name, c.country, COUNT(o.order_id) AS total_orders, SUM(o.amount) AS total_amount FROM Customers c JOIN Orders o ON c.customer_id = o.customer_id JOIN Shippings s ON c.customer_id = s.customer_id WHERE s.status = 'Delivered' GROUP BY c.customer_id, c.first_name, c.last_name, c.country HAVING COUNT(o.order_id) >= 2;
```

AZ full_name	AZ country	123 total_orders	123 total_amount
Alice Smith	USA	2	10450