

Практическое задание по теме «Сложные запросы»

Задание 1. Выполнено. Создал и заполнил таблицу orders. Составил список пользователей, которые осуществили хотя бы один заказ в интернет магазине.

The screenshot shows a database management interface with a SQL editor and a results grid. The SQL editor contains three queries: a table creation statement for 'orders', an insert statement for 'orders', and a select statement for users with orders. The results grid shows the output of the select statement, displaying a list of users with their IDs, first names, and last names.

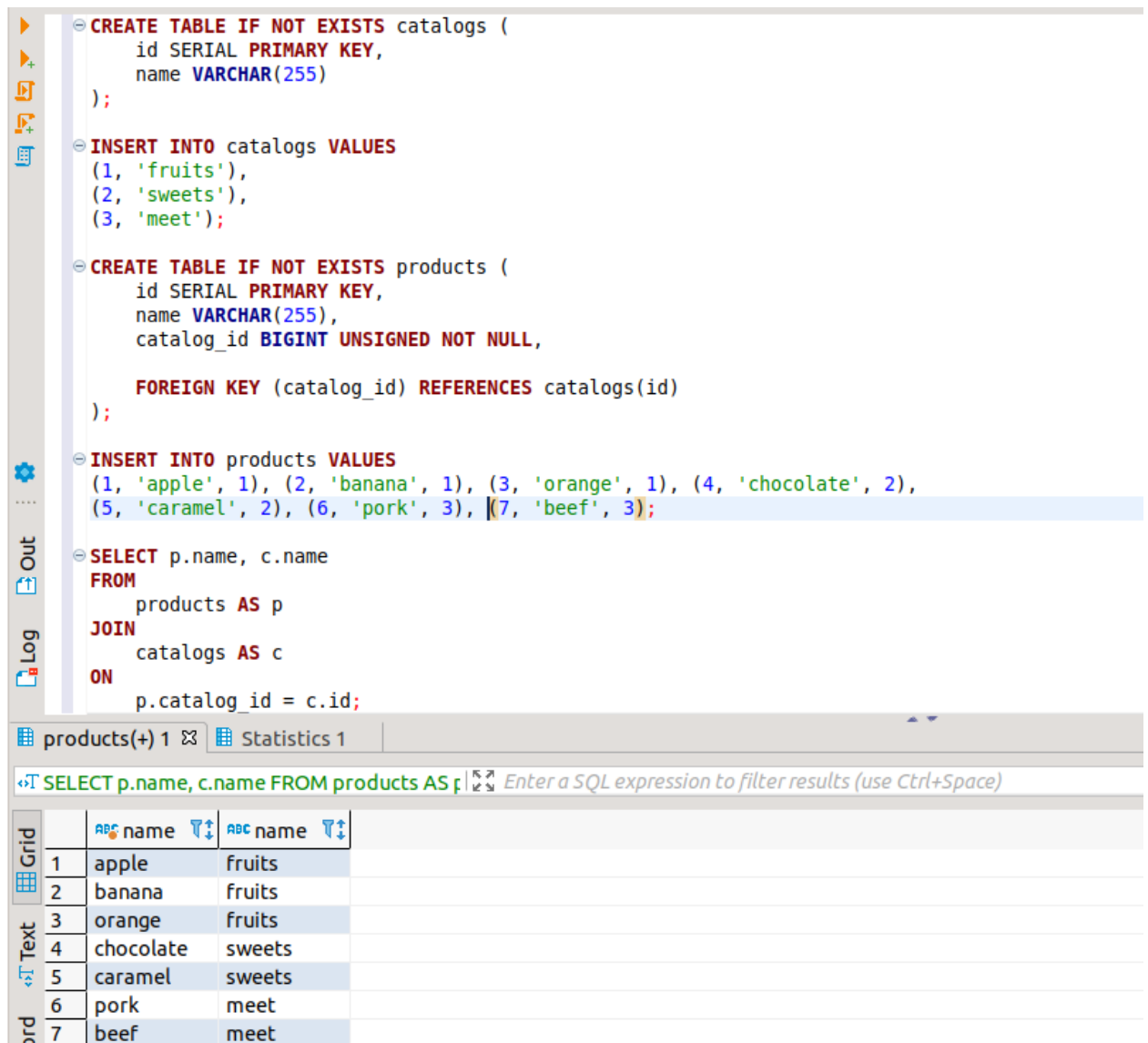
```
CREATE TABLE IF NOT EXISTS orders (  
    id SERIAL PRIMARY KEY,  
    user_id BIGINT UNSIGNED NOT NULL,  
    order_num BIGINT NOT NULL,  
  
    FOREIGN KEY (user_id) REFERENCES users(id)  
);  
  
INSERT INTO orders VALUES  
(1, 1001, 1),  
(2, 1002, 2),  
(3, 1003, 3),  
(4, 1005, 4),  
(5, 1006, 5),  
(6, 1026, 6),  
(7, 1044, 7),  
(8, 1001, 8);  
  
SELECT u.id, firstname, lastname  
FROM  
    users AS u  
JOIN  
    orders AS o  
ON  
    u.id = o.user_id;
```

users 1

SELECT u.id, firstname, lastname FROM users

	id	firstname	lastname
1	1,001	Lyda	Jenkins
2	1,002	Verda	Blick
3	1,003	Tia	Prosacco
4	1,005	Corbin	Hyatt
5	1,006	Madison	Welch
6	1,026	Amber	Wisoky
7	1,044	Theodora	Swaniawski

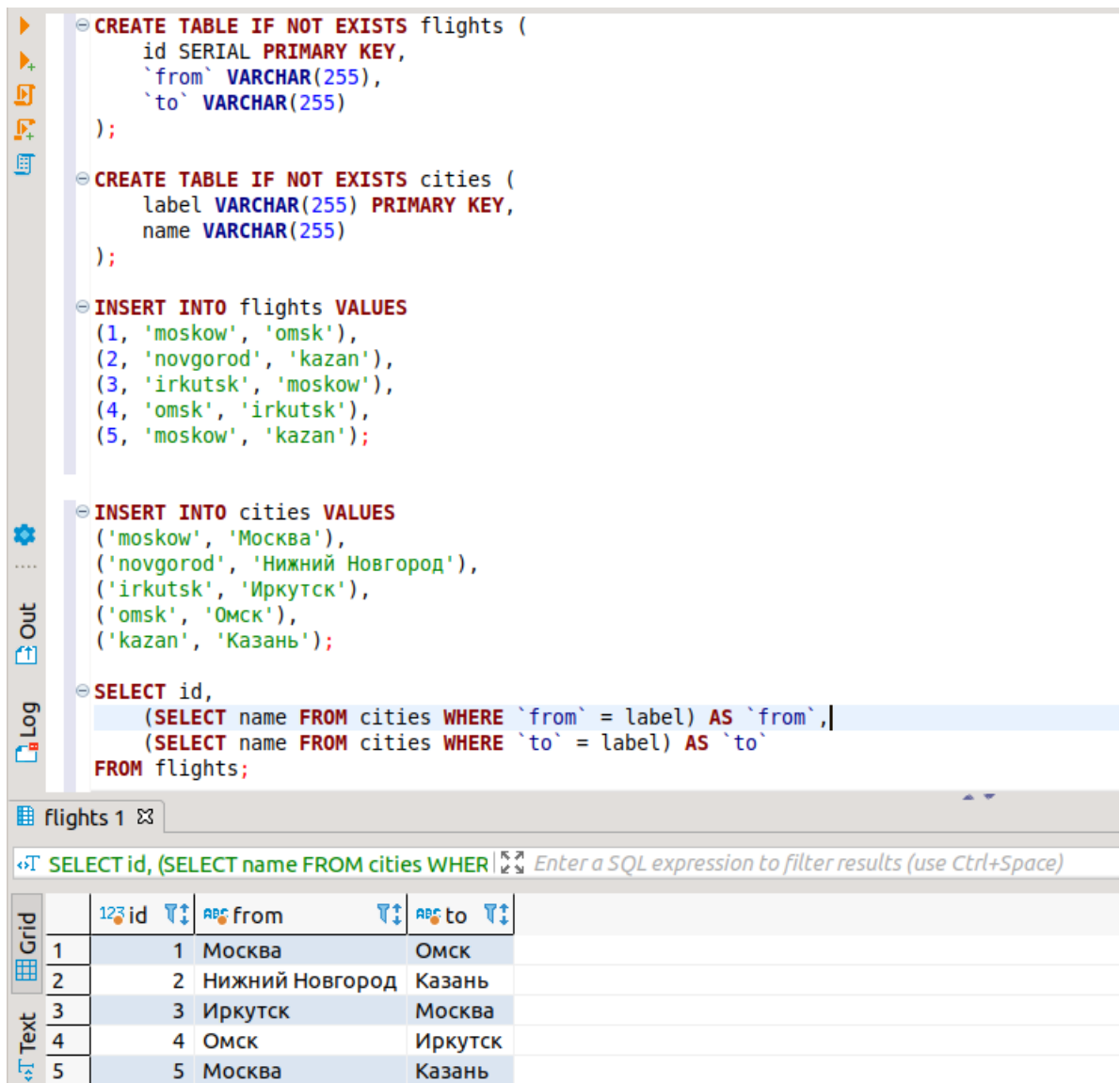
Задание 2. Выполнено. Создал таблицы products и catalogs. Вывел список товаров products и разделов catalogs, который соответствует товару.



The screenshot shows a database IDE interface. The main area displays a series of SQL queries executed in a script editor. The queries create two tables, 'catalogs' and 'products', insert data into them, and then perform a join query to display the results. The 'catalogs' table has columns 'id' (SERIAL PRIMARY KEY) and 'name' (VARCHAR(255)). The 'products' table has columns 'id' (SERIAL PRIMARY KEY), 'name' (VARCHAR(255)), and 'catalog_id' (BIGINT UNSIGNED NOT NULL), with a foreign key constraint referencing 'catalogs(id)'. The 'INSERT INTO catalogs VALUES' query inserts three rows: (1, 'fruits'), (2, 'sweets'), and (3, 'meet'). The 'INSERT INTO products VALUES' query inserts seven rows: (1, 'apple', 1), (2, 'banana', 1), (3, 'orange', 1), (4, 'chocolate', 2), (5, 'caramel', 2), (6, 'pork', 3), and (7, 'beef', 3). The 'SELECT' query joins 'products' (AS p) and 'catalogs' (AS c) on 'p.catalog_id = c.id', selecting 'p.name' and 'c.name'. Below the queries, the results of the join query are displayed in a table with two columns: 'name' and 'name'. The results are as follows:

	name	name
1	apple	fruits
2	banana	fruits
3	orange	fruits
4	chocolate	sweets
5	caramel	sweets
6	pork	meet
7	beef	meet

Задание 3. Выполнено. Создал таблицы рейсов flights (id, from, to) и таблицу городов cities (label, name). Поля from, to и label содержат английские названия городов, поле name – русское. Вывел список рейсов с русскими названиями городов.



```

CREATE TABLE IF NOT EXISTS flights (
  id SERIAL PRIMARY KEY,
  `from` VARCHAR(255),
  `to` VARCHAR(255)
);

CREATE TABLE IF NOT EXISTS cities (
  label VARCHAR(255) PRIMARY KEY,
  name VARCHAR(255)
);

INSERT INTO flights VALUES
(1, 'moskow', 'omsk'),
(2, 'novgorod', 'kazan'),
(3, 'irkutsk', 'moskow'),
(4, 'omsk', 'irkutsk'),
(5, 'moskow', 'kazan');

INSERT INTO cities VALUES
('moskow', 'Москва'),
('novgorod', 'Нижний Новгород'),
('irkutsk', 'Иркутск'),
('omsk', 'Омск'),
('kazan', 'Казань');

SELECT id,
  (SELECT name FROM cities WHERE `from` = label) AS `from`,
  (SELECT name FROM cities WHERE `to` = label) AS `to`
FROM flights;

```

flights 1

SELECT id, (SELECT name FROM cities WHERE

	id	from	to
1	1	Москва	Омск
2	2	Нижний Новгород	Казань
3	3	Иркутск	Москва
4	4	Омск	Иркутск
5	5	Москва	Казань