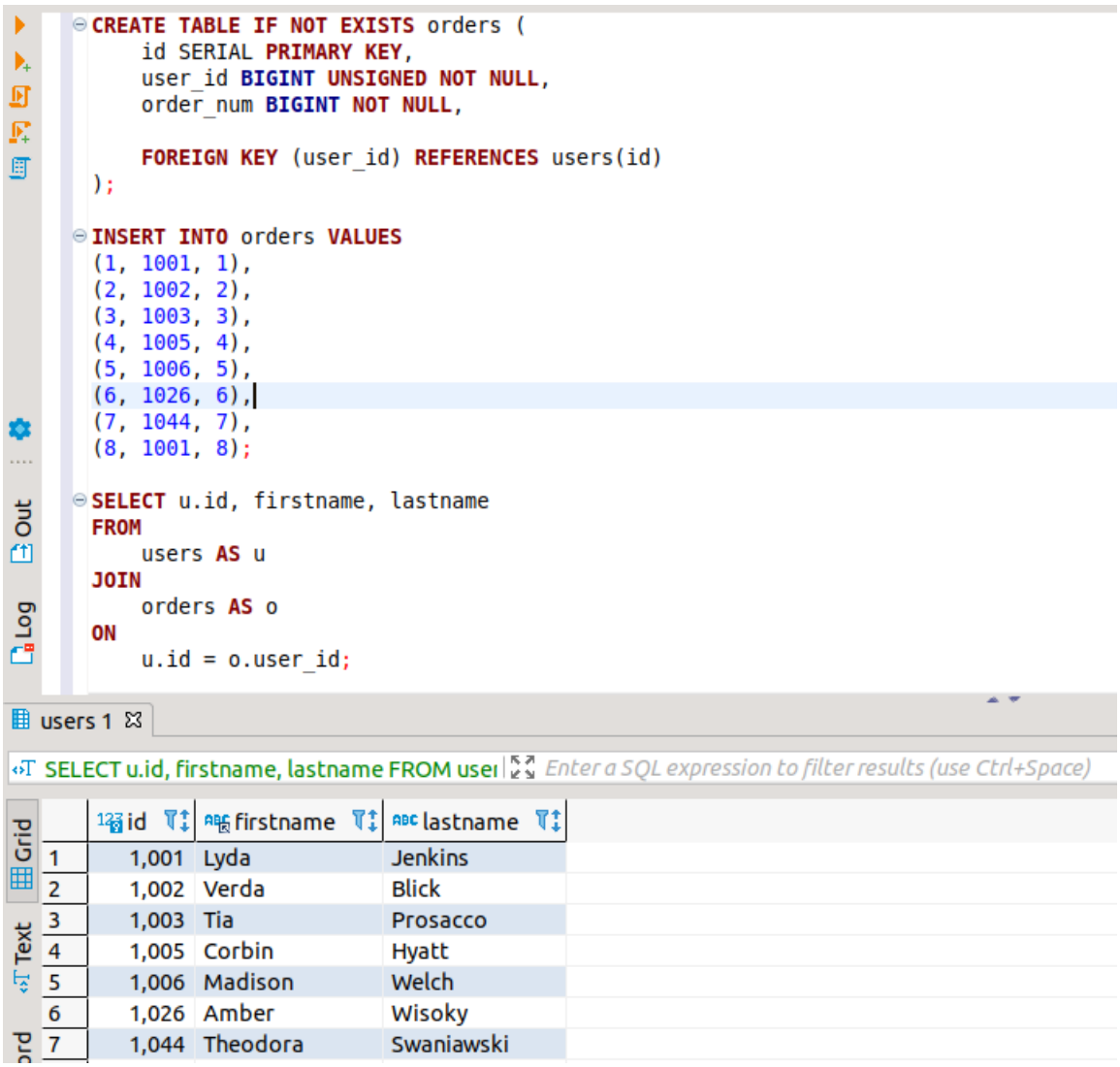
**Практическое задание по теме**
**«Сложные запросы»**

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



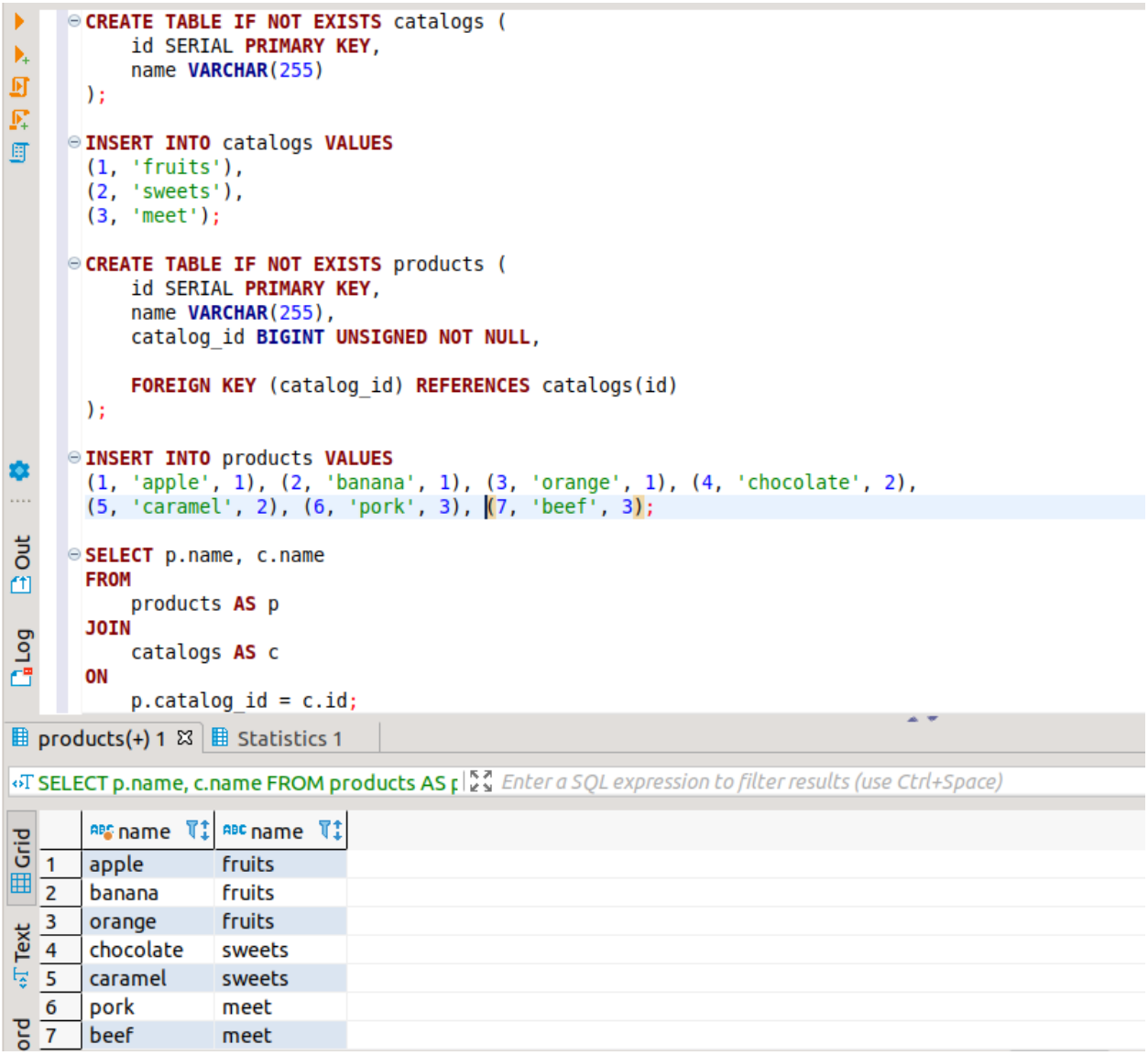
```sql
CREATE TABLE IF NOT EXISTS orders (
    id SERIAL PRIMARY KEY,
    user_id BIGINT UNSIGNED NOT NULL,
    order_num BIGINT NOT NULL,

    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 user | Enter a SQL expression to filter results (use Ctrl+Space)

| | 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.



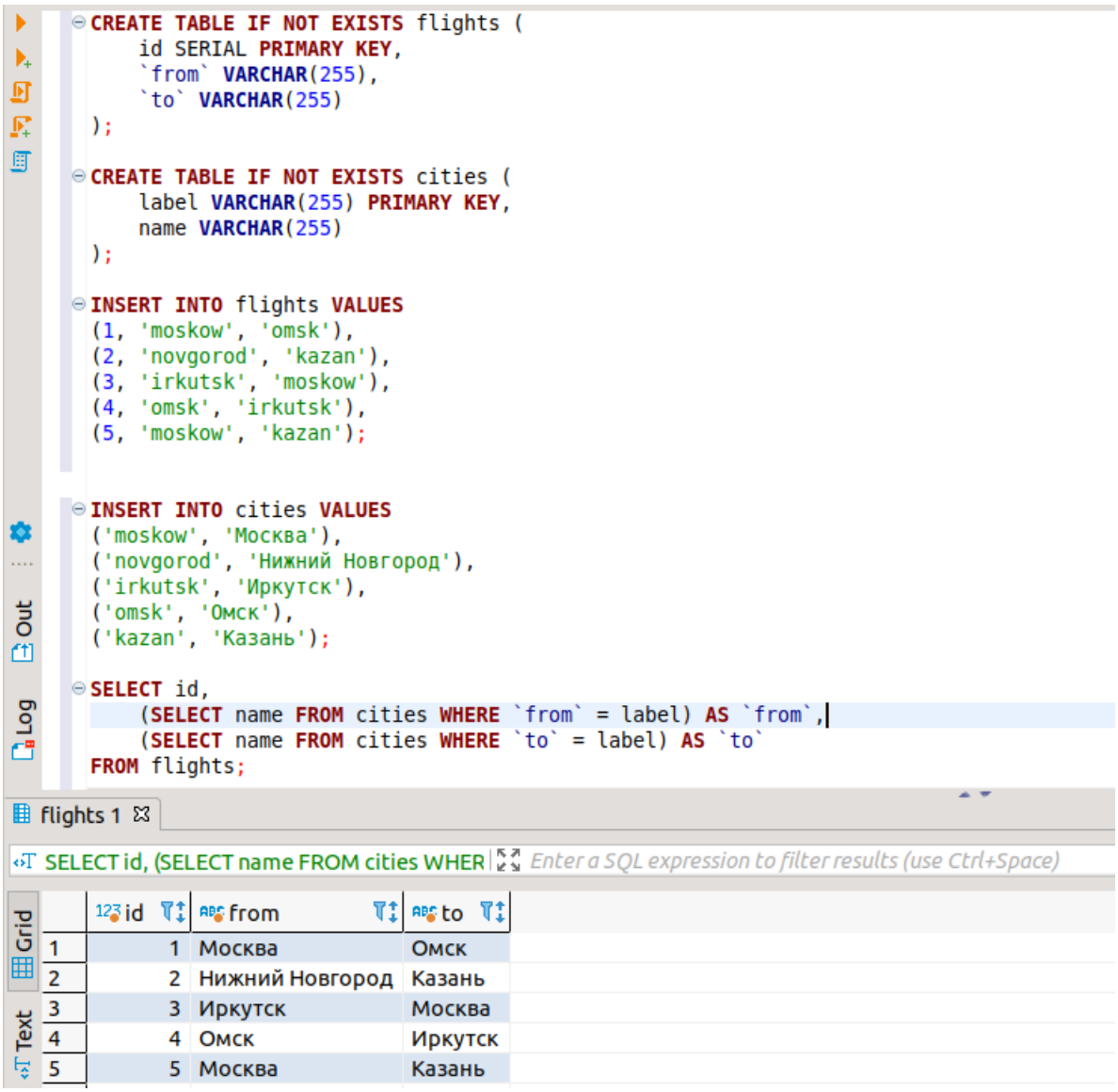
```sql
CREATE TABLE IF NOT EXISTS catalogs (
    id SERIAL PRIMARY KEY,
    name VARCHAR(255)
);

INSERT INTO catalogs VALUES
(1, 'fruits'),
(2, 'sweets'),
(3, 'meet');

CREATE TABLE IF NOT EXISTS products (
    id SERIAL PRIMARY KEY,
    name VARCHAR(255),
    catalog_id BIGINT UNSIGNED NOT NULL,

    FOREIGN KEY (catalog_id) REFERENCES catalogs(id)
);

INSERT INTO products VALUES
(1, 'apple', 1), (2, 'banana', 1), (3, 'orange', 1), (4, 'chocolate', 2),
(5, 'caramel', 2), (6, 'pork', 3), (7, 'beef', 3);

SELECT p.name, c.name
FROM
    products AS p
JOIN
    catalogs AS c
ON
    p.catalog_id = c.id;
```

products(+) 1 | Statistics 1

SELECT p.name, c.name FROM products AS p — Enter a SQL expression to filter results (use Ctrl+Space)

| | 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.



```sql
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 WHER | Enter a SQL expression to filter results (use Ctrl+Space)

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