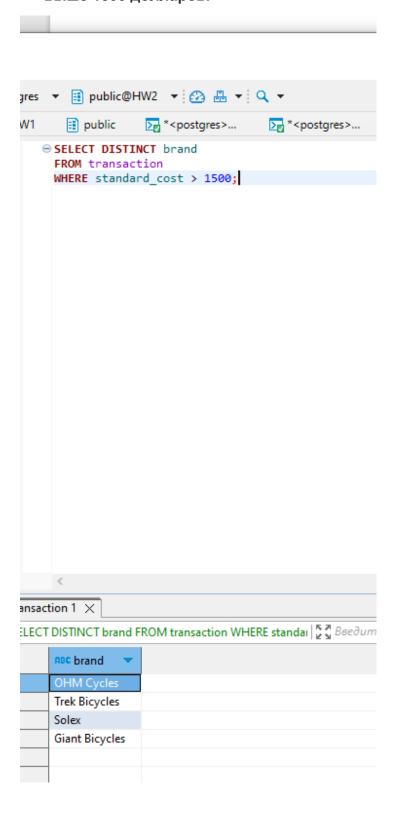Домашние задание 2

Гриднев К.А.

1. Создать таблицы со следующими структурами и загрузить данные из csv-файлов. Детали приведены ниже.
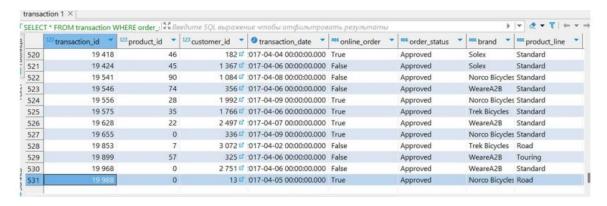
```sql
CREATE TABLE customer (
customer_id int4
 ,first_name varchar(50)
 ,last_name varchar(50)
 ,gender varchar(30)
 ,DOB varchar(50)
 ,job_title varchar(50)
 ,job_industry_category varchar(50)
 ,wealth_segment varchar(50)
 ,deceased_indicator varchar(50)
 ,owns_car varchar(30)
 ,address varchar(50)
 ,postcode varchar(30)
 ,state varchar(30)
 ,country varchar(30)
 ,property_valuation int4
 ,UNIQUE("customer_id")
)


CREATE TABLE transaction (
transaction_id int4
 ,product_id int4
 ,customer_id int4
 ,transaction_date varchar(30)
 ,online_order varchar(30)
 ,order_status varchar(30)
 ,brand varchar(30)
 ,product_line varchar(30)
 ,product_class varchar(30)
 ,product_size varchar(30)
 ,list_price float4
 ,standard_cost float4
 ,UNIQUE("transaction_id")
 ,FOREIGN KEY ("customer_id") REFERENCES customer("customer_id")
)
```

2. Выполнить следующие запросы:
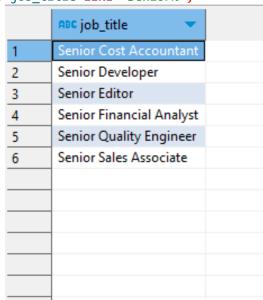   **Вывести все уникальные бренды, у которых стандартная стоимость выше 1500 долларов.**

```sql
SELECT DISTINCT brand
FROM transaction
WHERE standard_cost > 1500;
```

brand
OHM Cycles
Trek Bicycles
Solex
Giant Bicycles

Вывести все подтвержденные транзакции за период '2017-04-01' по '2017-04-09' включительно.

```sql
SELECT *
FROM transaction
WHERE order_status = 'Approved'
AND transaction_date >= '2017-04-01'
AND transaction_date <= '2017-04-09'
```

transaction 1 ×

SELECT * FROM transaction WHERE order_... Введите SQL выражение чтобы отфильтровать результаты

	transaction_id	product_id	customer_id	transaction_date	online_order	order_status	brand	product_line
520	19 418	46	182	017-04-04 00:00:00.000	True	Approved	Solex	Standard
521	19 424	45	1 367	017-04-06 00:00:00.000	False	Approved	Solex	Standard
522	19 541	90	1 084	017-04-08 00:00:00.000	False	Approved	Norco Bicycles	Standard
523	19 546	74	356	017-04-06 00:00:00.000	False	Approved	WeareA2B	Standard
524	19 556	28	1 992	017-04-09 00:00:00.000	True	Approved	Norco Bicycles	Standard
525	19 575	35	1 766	017-04-06 00:00:00.000	True	Approved	Trek Bicycles	Standard
526	19 628	22	2 497	017-04-07 00:00:00.000	True	Approved	WeareA2B	Standard
527	19 655	0	336	017-04-09 00:00:00.000	True	Approved	Norco Bicycles	Standard
528	19 853	7	3 072	017-04-02 00:00:00.000	False	Approved	Trek Bicycles	Road
529	19 899	57	325	017-04-06 00:00:00.000	False	Approved	WeareA2B	Touring
530	19 968	0	2 751	017-04-06 00:00:00.000	False	Approved	WeareA2B	Standard
531	19 988	0	13	017-04-05 00:00:00.000	True	Approved	Norco Bicycles	Road

Вывести все профессии у клиентов из сферы IT или Financial Services, которые начинаются с фразы 'Senior'.

```sql
SELECT DISTINCT job_title
FROM customer
WHERE job_industry_category IN ('IT', 'Financial Services')
AND job_title LIKE 'Senior%';
```

	job_title
1	Senior Cost Accountant
2	Senior Developer
3	Senior Editor
4	Senior Financial Analyst
5	Senior Quality Engineer
6	Senior Sales Associate

Вывести все бренды, которые закупают клиенты, работающие в сфере Financial Services

```sql
SELECT DISTINCT brand
FROM customer
JOIN transaction ON customer.customer_id = transaction.customer_id
WHERE customer.job_industry_category = 'Financial Services';
```

	ABC brand ▾
1	
2	Trek Bicycles
3	WeareA2B
4	Solex
5	Giant Bicycles
6	OHM Cycles
7	Norco Bicycles

Вывести 10 клиентов, которые оформили онлайн-заказ продукции из брендов 'Giant Bicycles', 'Norco Bicycles', 'Trek Bicycles'.

```sql
SELECT customer.customer_id, customer.first_name, customer.last_name
FROM customer
JOIN transaction ON customer.customer_id = transaction.customer_id
WHERE transaction.online_order = 'True'
AND transaction.brand IN ('Giant Bicycles', 'Norco Bicycles', 'Trek
Bicycles')
LIMIT 10;
```

customer 1 ×

⌐ SELECT customer.customer_id, customer.first_name, cust⸢ Введите SQ

	123 customer_id ▾	ABC first_name ▾	ABC last_name ▾
1	787	Norma	Batrim
2	2 339	Damien	Haddeston
3	3 002	Tracey	Verdun
4	3 368	Tanya	Boddis
5	2 810	Malvin	Burchill
6	2 448	Lorri	Iston
7	2 294	Skipton	Cordie
8	1 824	Robbie	Yakubovics
9	825	Willis	Whyler
10	1 498	Janot	McGougan

Вывести всех клиентов, у которых нет транзакций.

```sql
SELECT *
FROM customer
WHERE customer_id NOT IN (SELECT DISTINCT customer_id FROM
transaction);
```

	123 customer_id	ABC first_name	ABC last_name	ABC gender	ABC dob	ABC job_title	ABC job_ind
493	3 985	Caryn	Padbury	Female	1998-06-21	Web Developer IV	Property
494	3 986	Oralle	Petrello	Female	1976-12-01	Social Worker	Health
495	3 987	Beckie	Wakeham	Female	1964-05-29		Argiculture
496	3 988	Ammamaria	Ashburne	Female	1994-07-14	Automation Specialist IV	Health
497	3 989	Nicolas	Burdass	Male	1999-06-23	Environmental Specialist	Argiculture
498	3 990	Reynard	Hagger	Male	1998-03-05	Desktop Support Technician	Health
499	3 991	Rolph	Sweetnam	Male	1985-08-06	Chief Design Engineer	Manufactur
500	3 992	Germain	Tireman	Male	1980-04-02	Database Administrator IV	Manufactur
501	3 993	Andi	Dumelow	Female	1974-12-05	Librarian	Entertainme
502	3 994	Stephie	Byars	Female	1989-04-07	Structural Analysis Engineer	Manufactur
503	3 995	Rusty	Iapico	Male	1975-12-12	Staff Scientist	Manufactur
504	3 996	Rosalia	Halgarth	Female	1975-08-09	VP Product Management	Health
505	3 997	Blanch	Nisuis	Female	2001-07-13	Statistician II	Manufactur
506	3 998	Sarene	Woolley	U		Assistant Manager	IT
507	3 999	Patrizius	Oldland	Male	1973-10-24		Manufactur
508	4 000	Kippy	Oldland	Male	1991-11-05	Software Engineer IV	n/a

Вывести всех клиентов из IT, у которых транзакции с максимальной стандартной стоимостью.

```sql
SELECT customer.customer_id, customer.first_name, customer.last_name
FROM customer
INNER JOIN transaction ON customer.customer_id =
transaction.customer_id
WHERE customer.job_industry_category = 'IT'
AND transaction.standard_cost = (
 SELECT MAX(standard_cost)
 FROM transaction
)
```

	123 customer_id	ABC first_name	ABC last_name
1	3 473	Sanderson	Alloway
2	893	Gibby	Fearnley
3	3 151	Thorn	Choffin
4	34	Jephthah	Bachmann
5	2 913	Padraic	Bonnar
6	1 918	Devin	Sandeson
7	1 672	Sharla	Creebo
8	975	Goldarina	Rzehorz
9	1 773	Nickolas	Guittet

Вывести всех клиентов из сферы IT и Health, у которых есть подтвержденные транзакции за период '2017-07-07' по '2017-07-17'.

```sql
SELECT customer.customer_id, customer.first_name, customer.last_name
FROM customer
INNER JOIN transaction ON customer.customer_id =
transaction.customer_id
WHERE customer.job_industry_category IN ('IT', 'Health')
AND transaction.order_status = 'Approved'
AND transaction.transaction_date >= '2017-07-07'
AND transaction.transaction_date <= '2017-07-17';
```

	customer_id	first_name	last_name
115	3 360	Joelie	Sherlaw
116	722	Stewart	Brosoli
117	526	Ardelle	
118	1 683	Brenn	Bacon
119	3 365	Karlens	Chaffyn
120	1 174	Shellysheldon	Gooderridge
121	1 044	Frederico	Whilder
122	1 862	Daron	Umpleby
123	712	Norine	Antonik
124	2 442	Odie	Enrrico