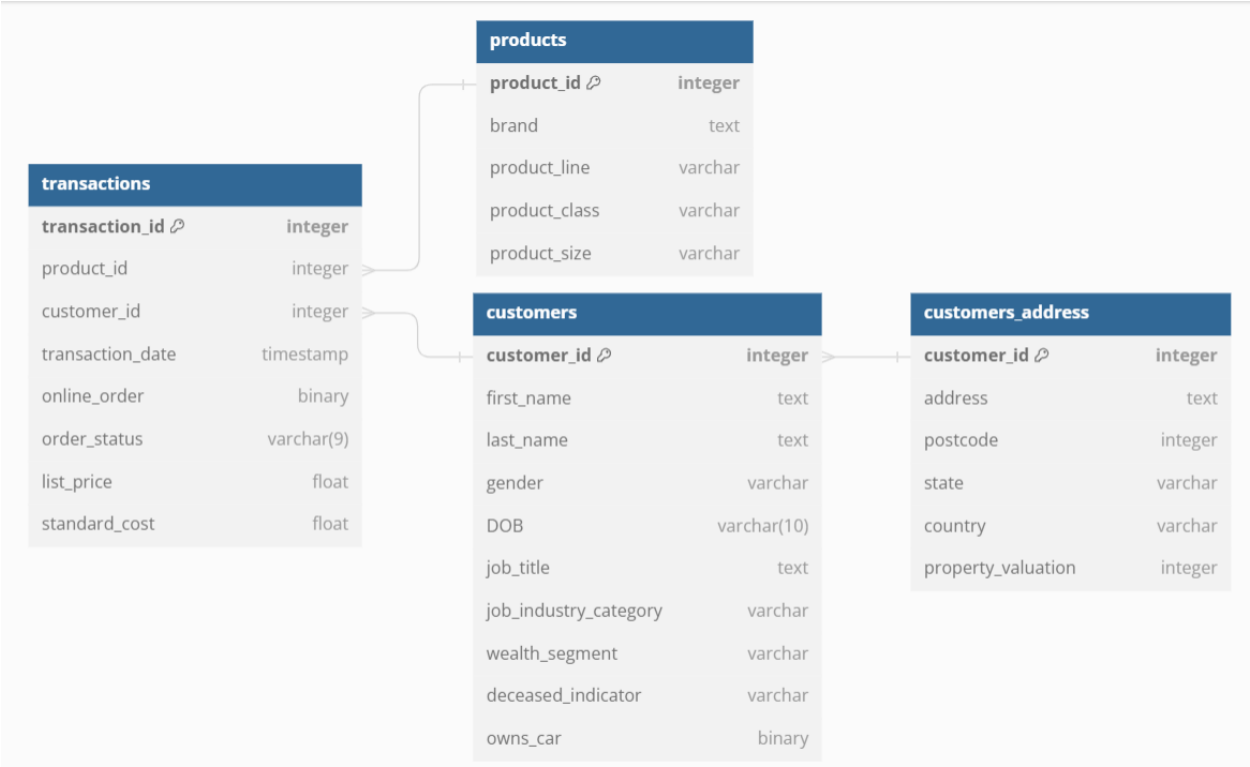
Структура базы данных



Выше схема базы данных, собранной из двух полученых таблиц.

Исходные таблицы не были в нормальной форме, потому что в них содержались несколько аттрибутов, которые могут быть разделены на более специфические таблицы. Из таблицы с транзакциями были выделена справочная таблица о продуктах. Стоимость продуктов и непосредственная цена продажи, остались в таблице с транзакциями, так как в некоторых случаях не зависят от product_id или характеристик самого продукта, см ниже.

1	transac	product	custome	transaction_dat	online_c	order_s	brand	product	product	product	list_price	standard_cos
229	228	13	821	04.04.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
257	256	13	1580	22.10.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
290	289	13	825	23.02.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
300	299	13	772	24.05.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
387	386	13	892	01.10.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
438	437	13	1862	27.08.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
467	466	13	505	24.06.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
719	718	13	2618	16.11.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
1253	1252	13	695	04.03.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
1368	1367	13	1403	19.07.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
1380	1379	13	3128	09.03.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
1478	1477	13	1699	03.09.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
1639	1638	13	901	26.07.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
1814	1813	13	1211	17.03.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
2170	2169	13	2578	08.09.2017	False	Approved	Solex	Standard	medium	medium	1577,53	826,51
2378	2377	13	2879	25.07.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
2404	2403	13	2382	21.04.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
2805	2804	13	2340	02.07.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
2900	2899	13	1944	06.10.2017	True	Approved	Solex	Standard	medium	medium	1577,53	826,51
3141	3140	13	3364	07.07.2017	False	Approved	Solex	Standard	medium	medium	1163,89	589,27
3174	3173	13	1798	27.10.2017	False	Approved	Solex	Standard	medium	medium	1577,53	826,51
3224	3223	13	2610	05.08.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27
3665	3664	13	1593	13.09.2017	True	Approved	Solex	Standard	medium	medium	1163,89	589,27

transaction customer

От таблицы с клиентами была отделена таблица с адресами клиентов.

База данных в DBeaver

Ниже представлен код (SQL), с помощью которого создавались таблицы в DBeaver

```
CREATE TABLE customers_address (
   customer_id SERIAL PRIMARY KEY,
   address TEXT,
   postcode INTEGER,
   state VARCHAR,
   country VARCHAR,
   property_valuation INTEGER
);

CREATE TABLE customers (
   customer_id SERIAL PRIMARY KEY,
   first_name TEXT,
   last_name TEXT,
   gender VARCHAR,
   DOB VARCHAR(10),
   job_title TEXT,
   job_industry_category VARCHAR,
   wealth_segment VARCHAR,
   deceased_indicator VARCHAR,
   owns_car VARCHAR,
   FOREIGN KEY (customer_id) REFERENCES customers (customer_id)
);

CREATE TABLE products (
   product_id SERIAL PRIMARY KEY,
   brand TEXT,
   product_line VARCHAR,
   product_class VARCHAR,
   product_size VARCHAR
);

CREATE TABLE transactions (
```

```
    transaction_id SERIAL PRIMARY KEY,
    product_id INTEGER,
    customer_id INTEGER,
    transaction_date DATE,
    online_order BOOLEAN,
    order_status VARCHAR(9),
    list_price FLOAT,
    standard_cost FLOAT,
    FOREIGN KEY (product_id) REFERENCES products (product_id),
    FOREIGN KEY (customer_id) REFERENCES customers (customer_id)
);
```

1	transac	product	custome	transaction_dat	online_c	order_s	brand	product	product	product	list_pric	standar	cost
2	1	2	2950	25.02.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
39	38	2	2916	06.12.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
68	67	2	75	03.07.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
220	219	2	3307	13.11.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
224	223	2	2698	30.11.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
254	253	2	3123	30.12.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
271	270	2	2362	13.02.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
473	472	2	1304	09.02.2017	True	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
572	571	2	1186	20.08.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
595	594	2	2118	17.08.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
613	612	2	3275	20.07.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
780	779	2	2832	15.06.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
822	821	2	3091	24.01.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
827	826	2	1307	20.09.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
856	855	2	1671	15.06.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
906	905	2	405	12.10.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	
925	924	2	295	19.09.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
937	936	2	2545	09.03.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
1181	1180	2	145	24.11.2017	False	Approved	Solex	Standard	medium	medium	71,49	53,62	
1278	1277	2	3455	27.06.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
1384	1383	2	2755	25.10.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
1540	1539	2	109	02.10.2017	True	Approved	Solex	Standard	medium	medium	71,49	53,62	
1750	1749	2	2468	26.06.2017	False	Approved	Giant Bicycles	Road	low	small	590,26	525,33	

transaction | customer

Поскольку одному product_id могут соответствовать несколько наборов значений, таблицы с транзакциями и продуктами записаны в обрезанном формате. Таблицы с покупателями и их адресами записаны полностью.

*<postgres> Script | products

Свойства | Данные | Диаграмма | postgres | Базы данных | postgr

products | Введите SQL выражение чтобы отфильтровать результаты

Таблица | Текст

	product_id	brand	product_line	product_class	product_size
1	2	Solex	Standard	medium	medium
2	3	Trek Bicycles	Standard	medium	large
3	37	OHM Cycles	Standard	low	medium
4	88	Norco Bicycles	Standard	medium	medium
5	78	Giant Bicycles	Standard	medium	large
6	25	Giant Bicycles	Road	medium	medium
7	22	WeareA2B	Standard	medium	medium
8	15	WeareA2B	Standard	medium	medium
9	67	Solex	Standard	medium	large
10	12	WeareA2B	Standard	medium	medium

*<postgres> Script | products | transactions

Свойства | Данные | Диаграмма | postgres | Базы данных | postgres | Схемы | public | Таблицы

transactions | Введите SQL выражение чтобы отфильтровать результаты

Таблица | Текст

	transacti	product_id	customer_id	transaction_date	onli	order_stat	list_price	standard_cost
1	1	2	2 950	2017-02-25	[ ]	Approved	71,49	53,62
2	2	3	3 120	2017-05-21	[v]	Approved	2 091,47	388,92
3	3	37	402	2017-10-16	[ ]	Approved	1 793,43	248,82
4	4	88	3 135	2017-08-31	[ ]	Approved	1 198,46	381,1
5	5	78	787	2017-10-01	[v]	Approved	1 765,3	709,48
6	6	25	2 339	2017-03-08	[v]	Approved	1 538,99	829,65
7	7	22	1 542	2017-04-21	[v]	Approved	60,34	45,26
8	8	15	2 459	2017-07-15	[ ]	Approved	1 292,84	13,44
9	9	67	1 305	2017-08-10	[ ]	Approved	1 071,23	380,74
10	10	12	3 262	2017-08-30	[v]	Approved	1 231,15	161,6

*<postgres> Script | products | transactions | customers

Свойства | Данные | Диаграмма | postgres | Базы данных | postgres | Схемы | public | Таблиц

customers | Введите SQL выражение чтобы отфильтровать результаты

	cust	first_n	last_	ge	dob	job_title	job_industry_	wealth_s	deceas	owns_car
1	1	Laraine	Medendo	F	1953-10-12	Executive Secret	Health	Mass Custom	N	Yes
2	2	Eli	Bockman	Male	1980-12-16	Administrative C	Financial Services	Mass Custom	N	Yes
3	3	Arlin	Dearle	Male	1954-01-20	Recruiting Mana	Property	Mass Custom	N	Yes
4	4	Talbot		Male	1961-10-03		IT	Mass Custom	N	No
5	5	Sheila-kathı	Calton	Female	1977-05-13	Senior Editor	n/a	Affluent Custc	N	Yes
6	6	Curr	Duckhous	Male	1966-09-16		Retail	High Net Wor	N	Yes
7	7	Fina	Merali	Female	1976-02-23		Financial Services	Affluent Custc	N	Yes
8	8	Rod	Inder	Male	1962-03-30	Media Manager	n/a	Mass Custom	N	No
9	9	Mala	Lind	Female	1973-03-10	Business System	Argiculture	Affluent Custc	N	Yes
10	10	Fiorenze	Birdall	Female	1988-10-11	Senior Quality E	Financial Services	Mass Custom	N	Yes
11	11	Uriah	Bisatt	Male	1954-04-30		Property	Mass Custom	N	No
12	12	Sawyere	Flattman	Male	1994-07-21	Nuclear Power E	Manufacturing	Mass Custom	N	No
13	13	Gabriele	Norcross	Male	1955-02-15	Developer I	Financial Services	High Net Wor	N	Yes
14	14	Rayshell	Kitteman	Female	1983-03-25	Account Executi	Financial Services	Affluent Custc	N	No
15	15	Erroll	Radage	Male	2000-07-13	Junior Executive	Manufacturing	Mass Custom	N	No
16	16	Harlin	Parr	Male	1977-02-27	Media Manager	n/a	Mass Custom	N	Yes
17	17	Heath	Faraday	Male	1962-03-19	Sales Associate	n/a	Affluent Custc	N	Yes
18	18	Marjie	Neasham	Female	1967-07-06	Professor	n/a	Affluent Custc	N	No
19	19	Sorcha	Keyson	Female	2001-04-15	Geological Engir	Manufacturing	High Net Wor	N	No
20	20	Basile	Firth	Male	1980-08-13	Project Manager	Manufacturing	Mass Custom	N	No
21	21	Mile	Cammock	Male	1980-09-20	Safety Technicia	Manufacturing	Affluent Custc	N	Yes
22	22	Deeanne	Durtnell	Female	1962-12-10		IT	Mass Custom	N	No
23	23	Olav	Polak	Male	1995-02-10		n/a	High Net Wor	N	Yes

Обновить | Save | Cancel | Экспорт данных ... | 200 | 200+

200 строк получено - 0,027s (0,008s получ.), 2024-02-08 в 15:15:58

*<postgres> Script | products | transactions | customers | customers_address

Свойства | Данные | Диаграмма | postgres | Базы данных | postgres | Схемы | public | Табл

customers_address | Введите SQL выражение чтобы отфильтровать результаты

	customer_id	address	postcode	state	country	property_valuation
1	1	060 Morning Avenue	2 016	New South Wales	Australia	10
2	2	6 Meadow Vale Court	2 153	New South Wales	Australia	10
3	3	0 Holy Cross Court	4 211	QLD	Australia	9
4	4	17979 Del Mar Point	2 448	New South Wales	Australia	4
5	5	9 Oakridge Court	3 216	VIC	Australia	9
6	6	4 Delaware Trail	2 210	New South Wales	Australia	9
7	7	49 Londonderry Lane	2 650	New South Wales	Australia	4
8	8	97736 7th Trail	2 023	New South Wales	Australia	12
9	9	93405 Ludington Park	3 044	VIC	Australia	8
10	10	44339 Golden Leaf Alley	4 557	QLD	Australia	4
11	11	2 Sutherland Street	3 799	VIC	Australia	6
12	12	9 Mcbride Trail	2 760	New South Wales	Australia	8
13	13	9861 New Castle Avenue	2 428	New South Wales	Australia	9
14	14	52 Moland Street	3 331	VIC	Australia	4
15	15	82391 Kensington Lane	3 058	VIC	Australia	9
16	16	092 2nd Alley	2 135	New South Wales	Australia	12
17	17	59 Spaight Circle	2 233	New South Wales	Australia	9
18	18	032 Bartelt Crossing	2 444	New South Wales	Australia	8
19	19	18 Jenna Center	2 650	New South Wales	Australia	7
20	20	3 Cordelia Plaza	2 153	New South Wales	Australia	10
21	21	28 5th Center	4 413	QLD	Australia	3
22	22	52 Carey Alley	4 740	QLD	Australia	5
23	23	96 Texas Plaza	3 218	VIC	Australia	7

Обновить | Save | Cancel | Экспорт данных ... | 200 | 200+

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