

# Простые запросы

## 1. Сортировка отправлений по убыванию веса, где вес превышает 1 кг

```
SELECT *
```

```
FROM postal_items
```

```
WHERE weight > 1
```

```
ORDER BY weight DESC;
```

id	track_num	type	weight	status	disp_date	arrival_date	sender_id	recipient_id	post_office_id
357	d45a93cf352d4dbd29dc053f8abd54	Box	19.966640434862832	Delivered	1970-01-01 02:59:59.967234+03	1970-01-01 02:59:59.82399+03	6121	1109	1137
172	c1340fd0c23d4e62a8c720d487376646	Package	19.738208223604218	Delivered	1970-01-01 03:00:01.733807+03	1970-01-01 03:00:01.282101+03	5280	8324	312
353	0363c0dbb694c2aa3a6961ba4efb45a	Box	19.69102309192143	Delivered	1970-01-01 02:59:58.828409+03	1970-01-01 03:00:00.656002+03	4661	7313	112
81	b12b2a2ec0b4c1c7a2d7a697bea40	Package	19.672490582371225	In Delivery	1970-01-01 02:59:59.33558+03		738	9172	214
381	a21e2576c8f72fada818a501b6e1f6	Package	19.666375247632622	In Delivery	1970-01-01 03:00:00.682066+03		9095	3878	503
104	6eff926ff8044b77baaaaaf9901aac57f	Package	19.65818295609121	Delivered	1970-01-01 02:59:59.737341+03	1970-01-01 02:59:59.700716+03	3525	9438	752
160	f7e12102hd304e9c3674ad8a8e1877	Package	19.5909722611205	In Delivery	1970-01-01 02:59:58.883037+03		1696	7810	46
275	63e3c2554ef6494eb656baec12c05e0c	Package	19.59055098649396	Delivered	1970-01-01 02:59:59.531576+03	1970-01-01 02:59:59.516237+03	8162	4828	71
392	a0e71c13ab54508ad7f03edc609c4a	Package	19.576035228262814	Delivered	1970-01-01 03:00:00.566771+03	1970-01-01 03:00:00.374442+03	7112	8732	45
188	43d57952f4dc4ee7b7f6b6ce53b8b58	Package	19.477031988303587	In Delivery	1970-01-01 03:00:01.881288+03		2128	3387	354
42	a60be44807324bde502783fce89129e	Package	19.4657024891532	In Delivery	1970-01-01 03:00:01.269572+03		3354	8971	113
254	9173d10ed6234ab09b9bcd86872c7854	Package	19.46160040075018	In Delivery	1970-01-01 03:00:00.89254+03		8926	1098	350
295	687819ca2d24c0f889d92e205ea646	Box	19.43334115284455	In Delivery	1970-01-01 03:00:00.433172+03		3509	3465	283
252	e79798cff8124556e0seadd0f9df562	Box	19.2938177246086708	In Delivery	1970-01-01 02:59:59.148247+03		4503	2285	954
335	142aeaa866934d808a5d8c8979c0e6	Package	19.23246079534337	In Delivery	1970-01-01 03:00:01.568303+03		8433	4547	1439
8	f6fbff6021740fa7fd7e509894d	Package	19.2294053471742	In Delivery	1970-01-01 03:00:01.542285+03		9965	7035	317
132	764fT36c63a3249f1567d2035f0d6f	Box	19.227415784244968	In Delivery	1970-01-01 03:00:01.003+03		3235	2625	20
28	c2b898efbf8c44365eb5eab5e0b8d777d	Box	19.217628121956474	In Delivery	1970-01-01 03:00:00.268894+03		202	7390	126
77	5022f9e2b147c1548cb154df897e500	Box	19.101627136705103	Delivered	1970-01-01 02:59:59.191839+03	1970-01-01 03:00:00.698774+03	4173	8130	125
299	f6fc873ed146aef8252f5335e19b192	Box	19.051227468262255	Delivered	1970-01-01 02:59:57.93983+03	1970-01-01 02:59:59.648136+03	1364	4219	488
257	6e8ccff1da554f8e0d5f8e00d1fe1	Box	19.943735411538488	In Delivery	1970-01-01 02:59:59.106644+03		5734	9140	300
48	6263c1fd15c4d73aad7637e3bade2e	Box	19.934925791381687	Delivered	1970-01-01 02:59:58.59388+03	1970-01-01 03:00:01.235911+03	6965	1284	28
385	967gd6b6c4860406c9434bd8c0bc294	Box	19.901366016056418	Delivered	1970-01-01 03:00:00.761182+03	1970-01-01 03:00:00.865639+03	3312	3936	268
204	e792f9a5fc3d0048167e8db040773a8	Package	18.85824662845684	In Delivery	1970-01-01 02:59:30.3163+03		8006	9851	419
33	cfc1415579561458cb14c246b6dca7c2	Box	18.816584388759686	In Delivery	1970-01-01 02:59:58.868368+03		1514	8936	84
89	ead1a87b58c1f498691b6ca5b31e	Package	18.750970457849967	In Delivery	1970-01-01 02:59:58.524573+03		1118	6173	68
319	f0468a3884a21da5a19f2ee14c7d5	Package	18.731748952263306	In Delivery	1970-01-01 02:59:59.054068+03		6692	7491	463
53	1e36dd66ce4e04ac0a8391f5f7e973b	Box	18.672675909705646	In Delivery	1970-01-01 03:00:00.517352+03		7634	29	100
170	ec69f6cd87f54851b46c018a7b9e5a6	Box	18.62441565333168	Delivered	1970-01-01 02:59:59.138022+03	1970-01-01 02:59:58.067334+03	644	1581	64
399	b2617b3903d4581878694d1e3e0c	Package	18.6093782101837	Delivered	1970-01-01 03:00:01.84212+03	1970-01-01 03:00:00.74482+03	4173	7670	125
183	b986764c3304e9ba003c30b2d19e57f	Package	18.56389533343492	In Delivery	1970-01-01 02:59:59.525092+03		7077	2778	55
167	e31b5ced0d43d48591180d717e373d	Box	18.464895026955308	In Delivery	1970-01-01 02:59:58.96835+03		1565	5119	11
174	93420a88bf7f4395ac4bc4eb9523edb	Package	18.330180250111383	In Delivery	1970-01-01 03:00:00.279765+03		9356	7821	306
350	0181ba9ed4044ef889159523eaa21837f	Box	18.309383291804705	In Delivery	1970-01-01 02:59:58.129497+03		5283	2578	507
193	ffb78c6a2374519836ec6e05a1694	Package	18.259835193601383	In Delivery	1970-01-01 02:59:58.519698+03		1364	7082	488
282	c0ef8d468a044ce8a9d649f4fa220	Box	18.25026578480949	In Delivery	1970-01-01 02:59:59.4621+03		5954	9673	132
226	263a3c26d18e48d9a4f61949b2703e9	Box	18.247141516451677	In Delivery	1970-01-01 03:00:00.668336+03		8959	7860	485
325	a10ed5ed734a6d5908f7a8391ea04	Package	18.12191590158036	Delivered	1970-01-01 02:59:58.9203+03	1970-01-01 02:59:59.243182+03	151	9424	254
66	84bdfa7e14b40b6ac5f1d8f61b441a	Box	18.07047714169036	Delivered	1970-01-01 03:00:02.018701+03	1970-01-01 03:00:01.589351+03	3340	9134	190
146	febd67c12eb9452388152f876502834	Package	18.06216422636732	Delivered	1970-01-01 02:59:58.70105+03	1970-01-01 02:59:59.3691+03	4273	8459	1120
80	913db3b615264a90c70e9b5d2e93d2	Package	18.01244768471452	Delivered	1970-01-01 02:59:59.184891+03	1970-01-01 02:59:58.441898+03	6500	2876	2
144	c84f8b5499f1340ab5dfb2d57a0119	Package	17.923843125502144	Delivered	1970-01-01 03:00:01.239417+03	1970-01-01 03:00:00.981011+03	9094	1301	747
312	36d6952e18419d9152363c24b3c35	Package	17.79903298216146	Delivered	1970-01-01 03:00:01.838792+03	1970-01-01 03:00:01.317778+03	5610	5886	138
40	798c1ed33d4b1f4caed65a3e485699	Box	17.706765168626074	In Delivery	1970-01-01 03:00:00.988193+03		4503	8081	954
233	626436f28d747c28f188968a491574	Package	17.658068112687292	Delivered	1970-01-01 03:00:00.835046+03	1970-01-01 02:59:59.754514+03	9584	5159	73
279	14f181b9a3264e09560d07d80f545	Box	17.625896396863872	In Delivery	1970-01-01 02:59:58.238385+03		146	4404	224
227	255bcb35f70341d8927304f3aebc0	Package	17.577685705105362	In Delivery	1970-01-01 02:59:58.0578+03		4801	7215	4
311	7d411e4a13204c8a5a9d225367b2e05	Package	17.514254805520384	In Delivery	1970-01-01 03:00:01.802829+03		8744	5794	295
21	8d984f8c000384086a50f80284d195	Box	17.4922685329453043	Delivered	1970-01-01 03:00:01.762642+03	1970-01-01 03:00:01.307699+03	5734	9850	300
317	aceff26008626d22089e0f5a158a017d	Box	17.4347161559373	In Delivery	1970-01-01 02:59:58.968519+03		3367	3518	242
343	5e1c8f86d064613b197b715b14a055	Box	17.4151530233806	In Delivery	1970-01-01 02:59:59.124654+03		7933	7939	408
118	96d37e2b4a94f8966be0374050e1a	Box	17.41025895885116	In Delivery	1970-01-01 03:00:00.68822+03		4747	7197	612
103	49dd1fd6ea8db4dfdb86f7277f1a10146	Box	17.3354593355111	Delivered	1970-01-01 02:59:59.2334+03	1970-01-01 02:59:58.753357+03	7897	8697	111
223	3c2552edf8d4dabafe5c1b6dabed90d	Package	17.28095462981167712	In Delivery	1970-01-01 02:59:59.783062+03		8291	7106	510
135	87f7dfc944fd845a5d869d0533e4f478d	Box	17.2648516054554	In Delivery	1970-01-01 03:00:01.696039+03		8193	1366	369
365	f7fc597159874f7efc13e105802469c02	Box	17.19027042152093	In Delivery	1970-01-01 02:59:58.558044+03		5242	5443	388
288	fb0ddbd035c348a07d0b67c6e79fe	Box	17.153012427729084	Delivered	1970-01-01 02:59:58.864006+03	1970-01-01 03:00:00.246718+03	4355	5831	421
286	d7abe1f3069545a5fa8dca96b4ba2d5f2	Box	17.1070370426926	In Delivery	1970-01-01 03:00:01.083618+03		8389	7433	982
195	68f0586a87baud7adae4967ba503	Package	17.073532805561	In Delivery	1970-01-01 02:59:58.702347+03		3589	8680	902
71	96b0805a8ca5d4ff5939ae23259579d	Package	17.06648561062216	In Delivery	1970-01-01 02:59:59.696453+03		9549	7240	760
393	c6b1629c874a31eb12385917e51795	Box	17.05188132510370	In Delivery	1970-01-01 03:00:00.901507+03		728	5053	200
16	ec6758c1dd43e4ac4bd50877e9c25	Package	17.0429353484881235	In Delivery	1970-01-01 02:59:59.326221+03		7798	5476	810
222	8768f750762479523168147ef60e1	Box	16.910355724661347	In Delivery	1970-01-01 02:59:59.840145+03		2562	3173	840
346	2f5ae0784b164dd2a7768db015d192a	Package	16.9017101934958	Delivered	1970-01-01 03:00:01.31223+03	1970-01-01 03:00:00.734566+03	6639	5463	40
186	6b5783f8a94f5fb512d7892ab7e5f	Box	16.81372978320486	Delivered	1970-01-01 03:00:01.43972+03	1970-01-01 03:00:00.616722+03	6503	7992	1994
278	1aebd3043004e02cb1053b3bbfc79bda	Box	16.767217697359058	In Delivery	1970-01-01 03:00:01.822407+03		6692	8215	463
139	df161c902e409fad4212c072d9b	Box	16.73193756223187	In Delivery	1970-01-01 02:59:59.008494+03		3120	6314	458
293	f0f14ba82c2fa759917bdb8d84abdf	Box	16.65982193037981	In Delivery	1970-01-01 02:59:59.710807+03		9965	9624	317
310	23229c6891e240bc869d43e56ea62f6	Box	16.59030944870285	Delivered	1970-01-01 03:00:01.190812+03	1970-01-01 03:00:00.145982+03	9314	6759	698
229	bac72c90892ceda881e5ed01916515a	Package	16.530956186767164	Delivered	1970-01-01 02:59:58.710833+03	1970-01-01 03:00:00.841441+03	113	5077	204
10	b639d07829c4ac5bc840f525f87e2	Package	16						

```

SELECT *
FROM postal_items
WHERE post_office_id = <id>
ORDER BY disp_date DESC;

```

id	track_num	type	weight	status	disp_date	arrival_date	sender_id	recipient_id	post_office_id
245	aeeea0f082887417dbc900af847a30ad3	Box	11.850091982482423	In Delivery	1970-01-01 02:59:59.740499+03		6500	1988	2
80	9138d3b615264a90ac70e9b5d2e93dc2	Package	18.01244768471452	Delivered	1970-01-01 02:59:59.184891+03	1970-01-01 02:59:58.441898+03	6500	2876	2
(2 rows)									

### 3. Получение всех клиентов из конкретной страны

```

SELECT customers.*
FROM customers
JOIN addresses ON addresses.customer_id = customers.id
WHERE addresses.country = 'Spain';

```

id	name	contact_info	reg_date	country
4488	Lord Tommie Dooley	wiltonmaggio@schmidt.net	1970-01-01 03:00:01.273323+03	Spain
9257	Mr. Kadin Carroll	leonlaufderhar@maggio.io	1970-01-01 02:59:59.082062+03	Spain
2926	Prof. Melany Jacobi	edwardbarrows@pollich.name	1970-01-01 02:59:59.249867+03	Spain
5488	Dr. Moses Bernier	alexaterry@rohan.com	1970-01-01 02:59:58.355051+03	Spain
812	Mr. Jesse Powłowski	bernadettebrakus@wisoky.net	1970-01-01 03:00:00.681509+03	Spain
8417	King Jean Nitzsche	enochspinka@roberts.name	1970-01-01 02:59:58.061073+03	Spain
6462	Prince Nicklaus Prohaska	darylbernier@hauck.io	1970-01-01 02:59:59.691353+03	Spain
2953	Dr. Gage Buckridge	kaleyraynor@wuckert.org	1970-01-01 02:59:59.326322+03	Spain
7885	Mr. Green Hettinger	olgawolf@feil.net	1970-01-01 03:00:01.568145+03	Spain
6256	Dr. Harry Bechtelar	wyattjacobi@walsh.info	1970-01-01 02:59:59.398792+03	Spain
7740	Prof. Loy Collier	odaschmeler@christiansen.com	1970-01-01 03:00:01.418996+03	Spain
3647	Mr. Lew Rowe	samantakoelpin@trantow.com	1970-01-01 03:00:00.148491+03	Spain
2988	Dr. Garrett Dooley	josuecormier@romaguera.com	1970-01-01 02:59:59.322155+03	Spain
6224	Prince Andrew Stamm	jalyncartwright@harvey.biz	1970-01-01 02:59:59.265652+03	Spain
3525	Lord Abdiel Strosin	svenhaley@ziemann.net	1970-01-01 02:59:59.988306+03	Spain
7115	Mr. Benton Rutherford	abbiewunsch@paucek.com	1970-01-01 03:00:00.480584+03	Spain
8162	King Forest Murphy	myrtisgoyette@koepp.io	1970-01-01 03:00:01.954868+03	Spain
2827	Prince Ellis Abshire	tedheidernreich@johns.com	1970-01-01 02:59:59.082807+03	Spain
9016	Prof. Elvis Wisozk	gerardthiel@anderson.info	1970-01-01 02:59:58.783018+03	Spain
9559	King Dillan Fahey	jacquelynleannon@bernier.net	1970-01-01 02:59:59.484118+03	Spain
200	Mr. Charles Orn	enriquekuhlman@fay.io	1970-01-01 02:59:59.874123+03	Spain
3061	Prince Cletus Gleichner	toreyberge@nitzsche.name	1970-01-01 02:59:59.398081+03	Spain

### 4. Подсчёт числа клиентов в каждом городе

```

SELECT addresses.city, COUNT(*) AS client_count
FROM addresses
GROUP BY addresses.city;

```

Punkalaidun	1
Selzach	1
Vitry-sur-Seine	1
Santa Clarita	1
Erongaicuaro	2
Megchelen	1
Romanel-sur-Morges	1
Cavan	1
Čoka	1
Rothrist	1
Hosur	1
Taboão da Serra	1
Fortaleza	1
Darbhanga	1
Steinhausen	1
Valladolid	1
Zapote de Adjuntas	1
Siikalatva	1
Elazığ	1
Mersin	1
St Albans	1
Stoevring	1
Vinnicya	1
Juupajoki	1
Kovačica	2
Trey	1
Málaga	1
Nederweert-Eind	1

# Средние запросы

1. Получить список всех подчиненных, офис, и их начальника.

```
SELECT e.Name AS employee_name,
       po.Name AS post_office_name,
       m.Name AS manager_name
  FROM employees e
 JOIN post_offices po ON po.id = e.post_office_id
 LEFT JOIN employees m ON m.position = 'Director' AND m.post_office_id = e.post_office_id
 WHERE m.Name IS NULL OR m.Name != e.Name
 ORDER BY po.name, e.name;
```

employee_name	post_office_name	manager_name
Mr. Gerhard Skiles	3 Round Stones, Inc. concerning	Prof. Alex Breitenberg
Prince Jerrell Wolf	3 Round Stones, Inc. concerning	Prof. Alex Breitenberg
Dr. Kellen McGlynn	3 Round Stones, Inc. here	Mr. Quentin O'Keefe
Prof. Linwood Padberg	3 Round Stones, Inc. here	Mr. Quentin O'Keefe
Dr. Jerald Sporer	3 Round Stones, Inc. how	King Hazel Nitzsche
Dr. Johan Osinski	3 Round Stones, Inc. how	King Hazel Nitzsche
King Billy Johnson	3 Round Stones, Inc. how	King Hazel Nitzsche
Lord Otho Hayes	3 Round Stones, Inc. how	King Hazel Nitzsche
Dr. Vaughn Bergstrom	3 Round Stones, Inc. over there	Lord Torey Kub
Prince Rupert Terry	3 Round Stones, Inc. over there	Lord Torey Kub
King Lourdes Klein	3 Round Stones, Inc. plenty of	Prince Jerome Walker
Prince Jordyn Schamberger	3 Round Stones, Inc. plenty of	Prince Jerome Walker
Dr. Abner Berge	3 Round Stones, Inc. this	Mr. Alexis Rogahn
Dr. Jordon Brown	3 Round Stones, Inc. this	Mr. Alexis Rogahn
Dr. Stan Gottlieb	3 Round Stones, Inc. this	Mr. Alexis Rogahn
Lord Devon Funk	3 Round Stones, Inc. this	Mr. Alexis Rogahn
Mr. Zakary Balistreri	3 Round Stones, Inc. why	Dr. Austen Cummings
Prof. Deshawn Boehm	3 Round Stones, Inc. why	Dr. Austen Cummings
Prof. Jamel Dach	3 Round Stones, Inc. why	Dr. Austen Cummings
Prof. Jesse Runolfsson	3 Round Stones, Inc. why	Dr. Austen Cummings
Dr. Watson Aufderhar	48 Factoring Inc. every	Mr. Brennan Beahan
King Giovani Braun	48 Factoring Inc. every	Mr. Brennan Beahan
Lord Jaylin Thompson	48 Factoring Inc. every	Mr. Brennan Beahan
Mr. Elias Luettgen	48 Factoring Inc. every	Mr. Brennan Beahan
Prince Gino Braun	48 Factoring Inc. every	Mr. Brennan Beahan
Prof. Lorenzo Nolan	48 Factoring Inc. every	Mr. Brennan Beahan
Mr. Allan Pfannerstill	48 Factoring Inc. his	Prof. Christophe Quitzon
Mr. Columbus Littel	48 Factoring Inc. his	Prof. Christophe Quitzon
Mr. Giovanni Wyman	48 Factoring Inc. his	Prof. Christophe Quitzon
Prof. Gregg Doyle	48 Factoring Inc. his	Prof. Christophe Quitzon
Dr. Murphy Corwin	48 Factoring Inc. how	Lord Talon Yundt
King Brooks Torphy	48 Factoring Inc. how	Lord Talon Yundt
King Carey Altenwerth	48 Factoring Inc. how	Lord Talon Yundt
Lord Lambert Becker	48 Factoring Inc. how	Lord Talon Yundt
Mr. Oran Bosco	48 Factoring Inc. how	Lord Talon Yundt
Prince Ted Swift	48 Factoring Inc. how	Lord Talon Yundt
King Deric Willms	48 Factoring Inc. it	Prof. Jaquan Macejkovic
King Selmer Rempel	48 Factoring Inc. it	Prof. Jaquan Macejkovic
Lord Jesse Kling	48 Factoring Inc. it	Prof. Jaquan Macejkovic
Mr. Judd Torp	48 Factoring Inc. it	Prof. Jaquan Macejkovic
Mr. Lonny Stehr	48 Factoring Inc. it	Prof. Jaquan Macejkovic
Prof. Berry Collier	48 Factoring Inc. it	Prof. Jaquan Macejkovic
Mr. Khalil Morar	48 Factoring Inc. my	Lord Willard Feil

## 2. Перечень отделений и сотрудников, работающих в них, с подсчётом количества сотрудников

```
SELECT post_offices.name AS post_office_name, COUNT(employees.id) AS employee_count
FROM employees
JOIN post_offices ON post_offices.id = employees.post_office_id
GROUP BY post_offices.id;
```

post_office_name	employee_count
Kimono Labs why	3
Inrix Traffic significant	7
AtSite there	3
Fuzion Apps, Inc. her	3
Business and Legal Resources her	3
BetterLesson over there	3
GetRaised what	5
IFI CLAIMS Patent Services her	3
Factual Portuguese	3
Workhands delightful	5
LegiStorm Dutch	3
Boston Consulting Group how	3
Innography some	3
PIXIA Corp those	3
Business and Legal Resources Colombian	3
Zillow a little bit	5
indoo.rs which	5
Xciential a little bit	5
MuckRock.com my	3
Tagnifi drab	3
Food+Tech Connect somebody	3
Splunk Roman	15
Environmental Data Resources how	3
OnStar much	3
Government Transaction Services anyone	3
The Schork Report shiny	3
Yahoo enough	3
The Advisory Board Company how	5
SolarList some	3
Credit Sesame Marxist	5
Glassy Media each	3
Estateley those	3
Science Exchange those	3
eScholar LLC. anyone	7
Socrata any	3
Remi how	7
Expert Health Data Programming, Inc. these	3
Aunt Bertha, Inc. it	5
PEV4me.com why	5
Careset.com cooperative	3
McGraw Hill Financial his	5
Junyo South American	5
The DocGraph Journal single	5

### 3. Рассчёт среднего веса отправлений в каждом отделении

```
SELECT post_offices.name AS post_office_name, AVG(postal_items.weight) AS avg_weight
FROM postal_items
JOIN post_offices ON post_offices.id = postal_items.post_office_id
GROUP BY post_offices.id;
```

post_office_name	avg_weight
Poncho App single	14.9312698335984715
Code-N which	17.5768705105363200
USAA Group those	11.7878012709178525
Lenddo modern	11.4437259771257925
Practice Fusion her	10.4598046069848740
MarketSense these	10.1100548514606579
Arpin Van Lines what	12.5618839532995505
Ranku all	7.8701515848381580
Impact Forecasting (Aon) your	14.3909899223501530
FindTheBest.com nobody	9.0936683387383380
Credit Sesame everybody	3.5005701605947760
CareSet Systems Taiwanese	11.4915124349872914
MedWatcher lively	15.5738518186933900
Recargo nobody	5.1593123451613390
Walk Score frantic	6.7141180627244610
Wolters Kluwer its	10.5014418799426485
Xatori nutty	18.9349257913816870
Amida Technology Solutions Intelligent	6.4856639421968390
HealthPocket, Inc. her	1.34661882598775500000
DataMade hundred	3.2691473537618925
Socrata too	8.2263771401120754
Nautilytics her	9.0197157700659770
PlanetEcosystems abundant	12.7510210226516950
Civic Impulse LLC Laoitian	11.8990197563881050
North American Van Lines Asian	9.8807331465994730
Junar, Inc. prickling	9.4619849263539460
iRecycle expensive	16.6247396197426755
Urban Airship Somali	19.5990722611205000
SmartAsset where	14.5202525793086540
Factset everybody	8.6033735275731330
Earth Networks enough of	10.6637499764603333
Avalara what	9.5145529983971960
PeerJ plenty of	9.9344163774847699
VitalChek Malagasy	14.7711318932357890
BuildZoom several	13.2762363339493300
DataMarket anyone	13.7839190627936360
VisualDoD, LLC hilarious	2.4684300894106882
OptumInsight his	7.6732840529954631
Civinomics significant	3.9687202651589765
LegiStorm many	11.0862485490306960
YourMapper whose	18.6244156533316800
gRadiant Research LLC quizzical	18.7509704578499670
Xatori Atlantic	19.5905509864939600

#### 4. Статистика по странам с числом отправителей и средним весом их отправлений

SELECT

```
a.country,
COUNT(DISTINCT c.id) AS client_count,
AVG(pi.weight) AS avg_weight
FROM customers c
JOIN addresses a ON a.customer_id = c.id
JOIN postal_items pi ON pi.sender_id = c.id
GROUP BY a.country
ORDER BY client_count DESC;
```

country	client_count	avg_weight
Iran	19	11.2938663195780428
New Zealand	18	9.3522406416734554
India	18	11.2229546227181719
Australia	16	9.3645993469942652
Netherlands	14	9.4919111204293595
Germany	13	7.6572082842511473
United Kingdom	13	12.4675737412071555
Ukraine	13	10.0833021552378122
Finland	13	10.2877405239205438
Canada	13	10.2322536719567446
Ireland	12	10.8463242069963868
Spain	11	11.2224771689133865
Serbia	11	10.4250629528479112
Switzerland	10	10.9880565043072871
Brazil	10	10.0500251946198604
France	9	8.7638806429095346
Turkey	9	10.0129787956309893
Mexico	8	10.6244765052910314
Denmark	8	10.8152099687369019
Norway	8	11.0670998659847290
United States	7	12.7547941076857428
(21 rows)		

5. Поиск всех сотрудников, которые не обрабатывали отправления в течение последних 30 дней

```

SELECT
    e.name AS employee_name,
    po.name AS post_office_name
FROM employees e
JOIN post_offices po ON po.id = e.post_office_id
LEFT JOIN status_transactions st ON st.employee_id = e.id
WHERE st.status_date IS NULL OR st.status_date < NOW() - INTERVAL '30 DAY'
ORDER BY e.name;

```

employee_name	post_office_name
Dr. Aaron Bayer	ProgrammableWeb Uzbek
Dr. Aaron Bogisich	BaleFire Global curios
Dr. Aaron Gorczany	Graematter, Inc. where
Dr. Aaron Kozey	Amida Technology Solutions nice
Dr. Aaron Strosin	Urban Airship either
Dr. Aaron Trantow	Alltuition none
Dr. Aaron Tromp	WebFilings any
Dr. Abdiel Vandervort	Progressive Insurance Group every
Dr. Abdul Halvorson	Knowledge Agency Norwegian
Dr. Abdullah Auer	Zebu Compliance Solutions these
Dr. Abdullah Moore	Amida Technology Solutions Atlantean
Dr. Abdul McCullough	Urban Airship great
Dr. Abdul Streich	Datamyne that
Dr. Abe Abbott	Credit Karma what
Dr. Abe Franecki	YourMapper your
Dr. Abelardo Bernhard	Innovest Systems it
Dr. Abelardo Johnston	Honest Buildings these
Dr. Abel Ryan	Xignite Thai
Dr. Abel Turcotte	SpotHero.com Caesarian
Dr. Abner Berge	3 Round Stones, Inc. this
Dr. Abner Botsford	ZocDoc there
Dr. Abner Bradtke	HERE anyone
Dr. Abner Harber	Berkshire Hathaway neither
Dr. Abner Nienow	AutoGrid Systems everybody
Dr. Abraham Douglas	Simple Energy anyone
Dr. Abraham Kub	EarthObserver App Marxist
Dr. Adalberto Harber	Environmental Data Resources enough
Dr. Adalberto Senger	Govzilla, Inc. these
Dr. Adan Auer	Amazon Web Services Pacific
Dr. Adan Crist	Reed Elsevier several
Dr. Adan Greenfelder	Rivet Software Finnish
Dr. Adan Hauck	Dow Jones & Co. their
Dr. Adelbert Hayes	Mapbox Iranian
Dr. Adelbert Jacobi	CostQuest her
Dr. Adelbert Kemmer	PlanetEcosystems over there
Dr. Adelbert Kuvalis	Construction Monitor LLC how
Dr. Adolfo Frami	Lending Club single
Dr. Adolfo Lockman	Outline all
Dr. Adolph Thiel	Energy Points, Inc. several
Dr. Adolphus Brown	Forrester Research numerous
Dr. Adolphus Feil	MapQuest enough
Dr. Adolphus Tromp	Reevaluate cautious

## 6. Запрос для получения статистики по состояниям товаров с информацией о клиентах и почтовых отделениях

```
SELECT
    pi.id AS postal_item_id,
    pi.track_num AS track_number,
    pi.type AS item_type,
    pi.weight AS item_weight,
    ps.status_name AS current_status,
    MAX(st.status_date) AS last_status_date,
    COUNT(st.id) AS total_status_changes,
    c_sender.name AS sender_name,
    c_recipient.name AS recipient_name,
    po.name AS post_office_name,
    addr.city AS post_office_city,
    addr.country AS post_office_country
FROM
    postal_items pi
JOIN
    status_transactions st ON st.postal_item_id = pi.id
JOIN
    postal_statuses ps ON ps.id = st.status_id
JOIN
    customers c_sender ON c_sender.id = pi.sender_id
JOIN
    customers c_recipient ON c_recipient.id = pi.recipient_id
JOIN
    post_offices po ON po.id = pi.post_office_id
JOIN
    addresses addr ON addr.id = po.address_id
GROUP BY
    pi.id, c_sender.name, c_recipient.name, po.id, addr.city, addr.country, ps.status_name
ORDER BY
    last_status_date DESC;
```

postal_item_id	track_number	item_type	item_weight	current_status	last_status_date	total_status_changes	sender_name	recipient_name	post_office_name	post_office_city	post_office_country
117	8b337015c32bd10798bc9907716463	Package	1.9394168623066603	Shipping	1970-01-01 03:00:02.055602+03	1	King Helleine Name	Mr. Orval Bahninger	Golden Helix whre	Vervarini	Serbia
211	081184e613e9ab72adca7d1914dc8	Package	3.755609085729617	Shipping	1970-01-01 03:00:02.055920+03	3	Prof. Ike McCullough	CarSetel Systems	Taiwanese	Tours	France
247	59306595ebef67fa0d67730574	Box	1.360351789315724	Delivered	1970-01-01 03:00:02.000346+03	1	Prince Rowland Conn	Dr. Edmund Schaefer	Luminous significant	Kastamonu	Turkey
49	1090182741740574845551774	Box	1.360351789315724	Delivered	1970-01-01 03:00:02.000346+03	3	Prof. Carl Stamm	Lord Gisela Stamm	Lightning	Wittenberg	Germany
258	90918274081744794551774	Package	12.54738792652823	Shipped	1970-01-01 03:00:02.055917+03	1	Prof. Casey Avery	Lord Loy Russell	Owlter what	Witten	Netherlands
45	910878908de1fb0a7b744c732299	Package	1.381862721620523	Shipping	1970-01-01 03:00:01.981594+03	1	Dr. Dino Aufderhar	King Guy Stark	Socrata Slovaks	Borjnik	Serbia
370	1090182741740574845551774	Box	1.360351789315724	Delivered	1970-01-01 03:00:02.000346+03	1	Prof. Alvin Kulas	King Agnieszka	Overseas praglogies your	Barbados de Victoria	Mexico
33	cfc41533f42a3493706919775036	Box	1.81518438759698	Delivered	1970-01-01 03:00:01.965268+03	1	Lord Dmitri Walsh	Lord Matthias Rice	Capital Cube numerous	Oleksandrivsk	Ukraine
314	b066743fa24393706919775036	Box	0.52624644702041	Shipping	1970-01-01 03:00:01.942652+03	2	Prof. Kortes Boris	Socrata to	Scotia to	Odaci	Serbia
13	286208464467020419775036	Box	7.051000000000001	Shipped	1970-01-01 03:00:01.942652+03	1	Prof. Jeffrey Rutter	Prince Water Russel	FIXIA everything	Hurup Thay	Denmark
17	134939490586193014	Box	1.4393949058619301	Delivered	1970-01-01 03:00:01.942652+03	1	Dr. Radomir Borelli	Lord Radomir Weller	Everyday those	Punkkalaidun	Finland
361	52267978c3994ea0859698ba4409	Box	12.763400352720831	Delivered	1970-01-01 03:00:01.936621+03	1	Mr. Ryan Bogisch	Lord Aurelio Watsica	PeerJ their	Eisleben	Germany
99	616884763c30d7e95978998948ea0e98c	Box	3.43681328231039	Shipping	1970-01-01 03:00:01.836219+03	2	King Liam Weber	Lord Aurelio Watsica	PeerJ their	Orange	Australia
354	134939490586193014	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.836219+03	2	Dr. Karl Heinz	Lord Everett Heidereich	Lighting corporation nobdy	Oranienburg	Germany
209	584745268126faed4a4cd7e73abd7056	Box	8.919851566556066	Shipping	1970-01-01 03:00:01.819574+03	1	Dr. Zackary Kiebel	Lord Everett Heidereich	OSISoft my	Sulzburg	Germany
64	69080190ab5a3a2a15be78e08108	Box	3.43681328231039	Shipped	1970-01-01 03:00:01.819574+03	1	Prof. Trever Schulst	Mr. Keyshawn Schaefer	Weather Decision Technologies there	Baturin	Ukraine
296	1090182741740574845551774	Box	1.360351789315724	Delivered	1970-01-01 03:00:02.000346+03	1	Prof. Michael T. Smith	Prof. Michael T. Smith	Programmatic	Finland	Finland
47	df6159235d5a14eb14801a807308584	Box	8.4512089506261	Delivered	1970-01-01 03:00:01.801271+03	1	Mr. Butch Chaplin	Mr. Bertrand Grady	Department Better Technology much	Dunedin	New Zealand
176	94c4965201a2e12c8360602f102b4	Box	6.9910406469255	Shipping	1970-01-01 03:00:01.791704+03	3	King Larue Rodriguez	Prince Terence Champion	The DocGraph Journal here	Auckland	New Zealand
379	1ad908079e9c2048c995e07707033	Box	0.576673738419042	Delivered	1970-01-01 03:00:01.788203+03	1	Prof. Janette Cronin	Prof. Xander Cumerata	Daho Health somebody	Peltt-Val	Switzerland
37	286208464467020419775036	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.788203+03	1	Prof. Kristina Wilson	King Kristina Wilson	IBEW over there	J-S	Ireland
17	80150974810aa7f1aa0573a2a78af	Box	1.319953663755134	Delivered	1970-01-01 03:00:01.788651+03	1	Prince Kelvin Kutch	King Kody Shimbel	Stompable friendly	Tipperary	Ireland
104	7f4363e54043d61b032782796054	Box	4.4393949058619301	Shipped	1970-01-01 03:00:01.788651+03	1	Dr. Deonree McRae	Lord Deonree McRae	LegisForm	Wellington	Canada
202	2365d5a23a3b43ab7430c92b03984	Box	6.72981805519084	Shipped	1970-01-01 03:00:01.788651+03	1	Dr. Marcus Breitzen	Mr. Giles Anklund	Monoponic Barcelonian	Odessa	United Kingdom
364	2365d5a23a3b43ab7430c92b03984	Box	3.43681328231039	Shipping	1970-01-01 03:00:01.788651+03	1	Dr. Marcus Breitzen	Mr. Giles Anklund	Monoponic Barcelonian	Pau	France
174	93420887f7f74939caeb9525ed6	Package	1.33018020511338	Delivered	1970-01-01 03:00:01.714544+03	2	King Cletus O'Reilly	Zurich Insurance (Risk Room) single	Santa Bárbara D'Este	Brazil	
115	832545464467020419775036	Box	3.355009347676102	Shipping	1970-01-01 03:00:01.704849+03	1	King Green Hollinger	Prince Christopher Ward	Lightstop couple	Pozuelo de Alarcón	Spain
354	821545464467020419775036	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.704849+03	1	Prof. Christopher Ward	Lord Tyronne Ward	Lightstop couple	Pozuelo de Alarcón	Spain
249	688625125a5eb0a145107e474d7c	Box	6.192340501475	Delivered	1970-01-01 03:00:01.695987+03	1	Mr. Kadin Carroll	Lord Wilmer Sanford	SmartAsset somebody	St. George	Denmark
42	a60844807323bde502783fe168128e	Box	19.465700284081952	Canceled	1970-01-01 03:00:01.665905+03	1	Prof. Robert Nolan	Lord Dudley Crook	Simple Energy my	Elazig	United Kingdom
139	1090182741740574845551774	Box	1.50624767103199	Shipped	1970-01-01 03:00:01.658349+03	1	Prof. Farley Frazee	Prof. Farley Frazee	Simple Energy my	Elazig	United Kingdom
237	255f09765648c2509e2c0470951	Box	3.3471921610659846	Shipping	1970-01-01 03:00:01.654624+03	2	Mr. Hubert Strosin	King Craig McKenzie	SpeSu Health any	Dier Lier	Netherlands
175	6d6c6159274cafae18c5e46dc8c	Box	0.61731274537051	Delivered	1970-01-01 03:00:01.653703+03	1	Prince Jossan Reichel	King Graig Whiting	Fujitsu who	Kongsvinger	Denmark
217	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.653703+03	1	Prof. Terrell Erman	Prof. Terrell Erman	Hoppe photo	Edinburgh	United Kingdom
203	1090182741740574845551774	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.653703+03	1	Lord Wellington Cummings	Prince Lee Rutherford	LegisForm anything	Odessa	United Kingdom
212	4da409746171c104641c7c080716997d2	Package	1.4393949058619301	Shipping	1970-01-01 03:00:01.612997+03	3	King Terrill Leher	Prince Terence Champion	Zoner how	Illinc	Ukraine
188	436730175474d4e107707fe0c655b58	Box	19.47703188339357	Shipped	1970-01-01 03:00:01.609996+03	1	Prince Kenneth Anderson	King Francisco Cassin	Lighting Group drop	Gijón	Spain
193	134939490586193014	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.609996+03	1	Prof. Christopher Ward	Abi Associates gifted	Saint-Etienne	Paris	France
310	2329c68912a8470c8c5d5e5826726	Box	16.590309348870285	Delivered	1970-01-01 03:00:01.567737+03	2	Mr. Silas Rutherford	Abi Associates gifted	Saint-Etienne	Paris	France
133	a4f76163c5d9e847a2652b0ebf89459f1	Box	1.50624767103199	Shipped	1970-01-01 03:00:01.558349+03	1	Lord Otto Feeney	Lord Wilmer Sanford	Trustee somebody	Paris	United Kingdom
238	255f09765648c2509e2c0470951	Box	1.50624767103199	Shipped	1970-01-01 03:00:01.558349+03	1	Prof. Farley Frazee	Lord Wilmer Sanford	Trustee somebody	Paris	United Kingdom
232	255f09765648c2509e2c0470951	Box	14.3993949058619301	Shipping	1970-01-01 03:00:01.545893+03	1	Prof. Farley Frazee	Prof. Farley Frazee	Trustee somebody	Paris	United Kingdom
264	5624265201a2e12c8360602f102b4	Box	6.42971042653495	Shipped	1970-01-01 03:00:01.545893+03	1	Lord Perry Connely	King Nathaniel Cremin	IBEW over there	Wellington	Canada
217	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.545893+03	1	Prof. J. Christopher Mayay	King Nathaniel Cremin	IBEW over there	Wellington	Canada
212	6292465201a2e12c8360602f102b4	Box	8.524035846702041	Delivered	1970-01-01 03:00:01.533649+03	1	Prof. Dennis Johnston	Lord Dennis Johnston	Cambridge Corporation Group those	Edinburgh	United Kingdom
247	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.533649+03	1	Prof. Dennis Johnston	Lord Dennis Johnston	Cambridge Corporation Group those	Edinburgh	United Kingdom
237	b267408923a458423b24a7bc0484742400	Box	15.2641810322695	Shipped	1970-01-01 03:00:01.534573+03	1	Dr. Benedict Kustur	Lord Dusty Stehr	AS Partners his	Edinburgh	United Kingdom
304	d4ee2807a504457a02a508474f27	Package	3.162624533966644	Shipped	1970-01-01 03:00:01.527063+03	3	Mr. Jesse Dowhan	Prince Donny Graham	Weather Decision Technologies there	Junar	Spain
138	f6136e18747484467020419775036	Box	5.255407167120695	Delivered	1970-01-01 03:00:01.517794+03	1	Prince Elisha Abbott	Prince Elisha Abbott	Weather Decision Technologies there	Gijón	Spain
368	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.517794+03	1	Prof. Declan Homick	King Judas Pfannstiel	Optimizing Turnken	Jax-Lw	Iran
269	5416066760e0f489c5d5e5826726	Box	1.76071404958061	Shipped	1970-01-01 03:00:01.500263+03	1	Mr. Efrain Schamberger	Prof. Floyd Seavey	Weather Decision Technologies Hundran	Aracatuba	Brazil
397	f3f7847461740574845551774	Box	16.783919056279365	Shipped	1970-01-01 03:00:01.482773+03	1	Prof. Daniel Conroy	Lord Roscoe Schaefer	DataMarket anyone	New Glasgow	Canada
66	1090182741740574845551774	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.482773+03	1	Prof. Farley Frazee	Lord Roscoe Schaefer	DataMarket anyone	Aulnay-sous-Bois	France
9	98we92283385945874815984747284	Box	10.32710131708268	Shipped	1970-01-01 03:00:01.474993+03	1	Dr. Doug Ross	Prof. Otis Larkin	Trustee somebody	Wülflingen	Switzerland
372	3fd155f0a47f740574845551774	Box	7.71361942857955	Canceled	1970-01-01 03:00:01.460733+03	1	Prince Trenton Cremin	Mr. Evans Schone	Bing a little	Kiliya	Ukraine
315	1045075111cd49de873d8170544	Box	6.2667204567484551774	Shipped	1970-01-01 03:00:01.455921+03	1	Prof. Daniel Johnston	Prof. Daniel Johnston	Cambridge Corporation Group those	Edinburgh	United Kingdom
247	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.455921+03	1	Prof. Daniel Johnston	Prof. Daniel Johnston	Cambridge Corporation Group those	Edinburgh	United Kingdom
237	b267408923a458423b24a7bc0484742400	Box	15.2641810322695	Shipped	1970-01-01 03:00:01.455921+03	1	Dr. Fredrik Hettner	Prince Fredrik Hettner	Lightstop exbandant	Bishnepur	India
287	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.455921+03	1	King Geoffrey Runte	Prince Mateo Wazica	GIHub exbandant	Hurup Thay	Denmark
192	d6772208464467020419775036	Box	4.29651003619323	Shipping	1970-01-01 03:00:01.383719+03	1	King Edmund Heatcoate	Prince Mateo Wazica	GIHub exbandant	Caucel	Mexico
205	2365d5a23a3b43ab7430c92b03984	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.383719+03	1	Prof. Ernesto Hettner	Prof. Ernesto Hettner	Lightstop exbandant	Aszkenki	United Kingdom
206	2365d5a23a3b43ab7430c92b03984	Box	4.18675820893938	Delivered	1970-01-01 03:00:01.375254+03	1	Prince Ulysses	Lord Peter Auer	Transparado why	Niederkassel	Germany
14	76d8194195484467020419775036	Box	8.46983603673966	Shipping	1970-01-01 03:00:01.374793+03	2	Mr. Theron Witting	Mr. Graville Arkell	Quid African	Vellere	India
211	1090182741740574845551774	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.374793+03	2	Prof. Farley Frazee	Prof. Farley Frazee	Lightstop exbandant	Paris	United Kingdom
207	5ce6f14e76d15945865584e12d26582	Box	6.53574456503187	Shipped	1970-01-01 03:00:01.361024+03	1	King Julee McClure	King Curtis Just	Construction Monitor LLC where	Elazig	United Kingdom
195	68578087a0704a7ada0ade496705303	Box	17.0735328050951	Delivered	1970-01-01 03:00:01.342621+03	1	Prof. Terrence Rutherford	Lord Torrance Rutherford	Quid African	Vellere	India
399	1090182741740574845551774	Box	1.4393949058619301	Shipped	1970-01-01 03:00:01.342621+03	1	Prof. Dr. David Lowrie	Lord Raymond Beahan	Nautilus awful	Latona	Canada
119	6291871954077a5034904936203	Box	3.95419046765462	Canceled	1970-01-01 03:00:01.339867+03	1	Dr. Great Hettner	Prince Chris Warquard	HopStop exbandant	Rampr	India

post_office_id	post_office_name	employee_count	postal_item_count	load_per_employee
1439	HopStop whose	3	4	1.3333333333333333
113	Simple Energy my	3	4	1.3333333333333333
221	eInstitutional those	3	3	1.0000000000000000
1803	Inovalon it	3	3	1.0000000000000000
317	Connotate which	3	3	1.0000000000000000
954	Cambridge Information Group my	3	3	1.0000000000000000
107	Maponics Barcelonian	3	3	1.0000000000000000
419	Golden Helix where	3	3	1.0000000000000000
485	FirstPoint, Inc. somebody	3	3	1.0000000000000000
206	Everyday Health those	3	3	1.0000000000000000
449	Science Exchange motionless	3	3	1.0000000000000000
121	OnStar everyone	3	3	1.0000000000000000
132	Stormpulse friendly	5	4	0.8000000000000000
312	Weather Decision Technologies there	5	4	0.8000000000000000
587	Owlter what	3	2	0.6666666666666666
491	AutoGrid Systems whose	3	2	0.6666666666666666
941	Overture Technologies your	3	2	0.6666666666666666
689	DataWeave Costa Rican	3	2	0.6666666666666666
810	PricewaterhouseCoopers (PWC) few	3	2	0.6666666666666666
274	Lawdragon any	3	2	0.6666666666666666
902	Quid African	3	2	0.6666666666666666
840	Forrester Research over there	3	2	0.6666666666666666
369	PeerJ over there	3	2	0.6666666666666666
260	Ez-XBRL a little bit	3	2	0.6666666666666666
94	Uber her	3	2	0.6666666666666666
96	Qado Energy, Inc. over there	3	2	0.6666666666666666
61	Civinomics significant	3	2	0.6666666666666666
200	Socrata Slovak	3	2	0.6666666666666666
461	Dabo Health somebody	3	2	0.6666666666666666
251	48 Factoring Inc. where	3	2	0.6666666666666666
59	VisualDoD, LLC hilarious	3	2	0.6666666666666666
232	Stormpulse which	3	2	0.6666666666666666
680	People Power great	3	2	0.6666666666666666
20	CareSet Systems Taiwanese	3	2	0.6666666666666666
126	Rapid Cycle Solutions its	5	3	0.6000000000000000
259	SpeSo Health any	5	3	0.6000000000000000
350	Tendril hundreds	5	3	0.6000000000000000
54	PeerJ plenty of	5	3	0.6000000000000000
698	Abt Associates gifted	7	4	0.57142857142857142857
557	TransparaGov why	9	4	0.44444444444444444444
838	Urban Airship Elizabethan	7	3	0.42857142857142857143
283	LoseIt.com Barcelonian	7	3	0.42857142857142857143

# Сложные запросы

- Запрос для получения всех клиентов, которые не оплатили отправление, и суммы их задолженности, сгруппированные по почтовым отделениям

SELECT

```

post_offices.name AS post_office_name,
customers.name AS customer_name,
SUM(postal_items.weight * 200) AS total_weight
FROM customers
JOIN postal_items
ON postal_items.sender_id = customers.id
LEFT JOIN payments
ON payments.postal_item_id = postal_items.id
JOIN post_offices
ON post_offices.id = postal_items.post_office_id
WHERE payments.id IS NULL
GROUP BY post_offices.id, post_offices.name, customers.id, customers.name;

```

Выведет ноль, так как в функции добавления платежей, у меня все отправления оплачиваются

```
postgres@[local]:pochta_russia=# SELECT COUNT(*) FROM postal_items;
count
-----
 399
(1 row)

postgres@[local]:pochta_russia=# SELECT COUNT(*)
FROM postal_items pi
JOIN payments p ON p.postal_item_id = pi.id
WHERE p.id IS NOT NULL;
count
-----
 399
(1 row)
```

2. Запрос выведет таблицу с информацией о всех отправлениях, которые были отправлены не более 1000 дней назад, и их атрибутами

```

WITH StatusDetails AS (
    SELECT
        pi.id AS postal_item_id,
        ps.status_name,
        st.status_date,
        ROW_NUMBER() OVER (PARTITION BY pi.id ORDER BY st.status_date DESC) AS rn
    FROM postal_items pi
    JOIN status_transactions st ON st.postal_item_id = pi.id
    JOIN postal_statuses ps ON ps.id = st.status_id
),
PaymentStatus AS (
    SELECT
        pi.id AS postal_item_id,
        CASE
            WHEN p.id IS NOT NULL THEN 'Paid'
            ELSE 'Unpaid'
        END AS payment_status
    FROM postal_items pi
    LEFT JOIN payments p ON p.postal_item_id = pi.id
),
PostOfficeWeight AS (
    SELECT
        pi.post_office_id,
        SUM(pi.weight) AS total_weight
    FROM postal_items pi
    GROUP BY pi.post_office_id
),
FilteredStatus AS (
    SELECT postal_item_id, status_name, status_date
    FROM StatusDetails
    WHERE rn = 1
)
SELECT DISTINCT
    pi.track_num,
    po.name AS post_office_name,
    pi.weight,
    RANK() OVER (PARTITION BY pi.post_office_id ORDER BY pi.weight DESC) AS position,
    fs.status_name AS last_status,
    fs.status_date AS last_status_date,
    ps.payment_status,
    po_weight.total_weight,
    (pi.weight / po_weight.total_weight) * 100 AS weight_percentage
FROM postal_items pi

```

```

JOIN post_offices po ON po.id = pi.post_office_id
JOIN FilteredStatus fs ON fs.postal_item_id = pi.id
JOIN PaymentStatus ps ON ps.postal_item_id = pi.id
JOIN PostOfficeWeight po_weight ON po_weight.post_office_id = pi.post_office_id
WHERE pi.disp_date >= NOW() - INTERVAL '1000000 days'
ORDER BY
    pi.track_num,
    po.name,
    pi.weight,
    position;

```

track_num	post_office_name	weight	position	last_status	last_status_date	payment_status	total_weight	weight_percentage
00000ff510a14e1bf77b256f135252196	Abt Associates gifted	14.4133008611193243	2	Canceled	1970-01-01 03:00:01 3047513-03	Paid	46,0259352110243275	31.316041635602352036100
0362b30fd2d2e434dc4102e19d0d	Cambridge Information Group those	6,425707434622495	1	Shipped	1970-01-01 03:00:01 447513-03	Paid	6,425707434622495	100,0000000000000000000000
065430fd2d2e434dc4102e19d0d	AutoGrid Systems whose	14,12185576007178	1	Shipping	1970-01-01 03:00:01 408252-03	Paid	15,4069507819961864	91,658991840589301600
06d6ca1159274ca4e19c96e4de89d	IBM over there	15,91112793384027	2	Shipping	1970-01-01 03:00:01 537454-03	Paid	31,325124880510203	49,9954253484403451400
07e43653404a3d6b1302787209b605e	IBM over there	15,913996946699633	1	Delivered	1970-01-01 03:00:01 731802-03	Paid	31,325124880510203	50,0450746515996548600
08118ac4e03a2d7a791d9ab48	CarSet Systems Taiwanese	3,7556090857296147	2	Shipping	1970-01-01 03:00:02 015392-03	Paid	22,9830248699745827	16,34079546524794797000
088946fbca411ca32c59c66f0498	Ernst & Young LLP how	4,836356555543345	2	Canceled	1970-01-01 03:00:00 912399-03	Paid	22,246614915401461	21,73974141205234421900
0c77226d2a2c414e02e19d8	Qaddo Energy, Inc. over there	4,296512606163623	2	Shipping	1970-01-01 03:00:01 382755-03	Paid	18,870467857140647	22,76844770723481835600
0df04270e5f4983b66d2306526a	Stormpulse friendly	13,030704381744268	2	Canceled	1970-01-01 03:00:00 93816-03	Paid	41,8913771487118184	31,10593465074751039100
0d18a09ed044044e195e23e6a221837f	Corelogic exciting	18,30938209184705	1	Shipped	1970-01-01 02:59:59 992468-03	Paid	18,30938209184705	100,0000000000000000000000
0dd2dadea848547f197a80c25170581d	YourMapper here	12,504437827396558	1	Canceled	1970-01-01 02:59:59 458651-03	Paid	12,504437827396558	100,0000000000000000000000
0e5155c32d3429e9494dbe3f9e3f7710	Ladragow any	12,17311993612243	1	Shipping	1970-01-01 03:00:00 390789-03	Paid	21,86160241051295	25,626517378174461000
0f1414ba82f2a79591719d0b8c8d4bbdf	Connotate which	16,6598219307981	2	Canceled	1970-01-01 03:00:00 267826-03	Paid	47,1772071164186	35,3128356916860369900
1229b30d6b1561793046a292bfe2a92b6	Dabu Health somebody	6,26066646070050996	1	Delivered	1970-01-01 03:00:00 452546-03	Paid	6,83740243436938	91,6558939781881015400
14253062a2a03a2d7a791d9ab48	Hopstop nose	19,23246070934547	1	Shipped	1970-01-01 03:00:00 109391-03	Paid	40,07457263180101	48,88939781881015400
19104f09e81045802bd050f91c93c8561	Kudu Health what	2,4939107585059862	4	Shipping	1970-01-01 03:00:01 635635-03	Paid	16,07457263180101	13,3675770428983800
194ef5fdcc14a69bb14ddff0d35156c	Avalara what	9,5145529983937796	1	Shipping	1970-01-01 03:00:02 002701-03	Paid	9,5145529983937796	100,0000000000000000000000
1283636d1e9496198d2b6eb196d439	Simple Energy my	3,1329180747817407	3	Shipping	1970-01-01 03:00:00 382975-03	Paid	38,8529384746311195	8,06352922286002664300
146f05d4cd5e05aae21b7a2091022bc	Maponics Barcelonaian	7,749275721879028	1	Shipped	1970-01-01 03:00:00 558911-03	Paid	15,0980694802511	51,32629864546062058600
149h9879749c942048ce99cfe0f77033	Dabu Health somebody	0,5766737834216942	2	Delivered	1970-01-01 03:00:01 788203-03	Paid	6,837340243436938	8,43418276518218984600
1b5856a597a242a0a665952a8e5f3336e	Arpin Van Lines what	11,1611163666959291	2	Shipping	1970-01-01 03:00:00 710942-03	Paid	25,123767906599196	44,4247204805759204800
1ba99724046a4f88800823ae9883584	Abt Associates gifted	11,91193593608541	3	Shipping	1970-01-01 03:00:00 883495-03	Paid	46,0259352110243275	25,87994163876569437700
1bd2465d6f344e06a014d7e649955bdcc	PeerJ plenty of	11,63623324968885	2	Shipped	1970-01-01 03:00:00 940224-03	Paid	29,8032491324543098	39,0435981904859470400
1be555f0519b429f967109c2e05289	Ez-XBRL a little bit	4,8059119302416065	2	Shipping	1970-01-01 03:00:00 086996-03	Paid	19,667815534590485	24,435206518324192300
1de0e22ddf056401696f5e5d22fa25af3	Transparago why	8,708040284510991	3	Shipping	1970-01-01 03:00:00 933214-03	Paid	33,746806331639694	25,8044042273035903500
1deaefee905542a2b7e7f7cc2cad6aae9e	OnStar everyone	14,571306555709583	1	Delivered	1970-01-01 03:00:00 188112-03	Paid	32,97815989694159	44,7002540325871459300
1e36d3decfcd42f42a7c0800e5fb03fddc	Galorath Incorporated whose	18,6726759079075646	1	Delivered	1970-01-01 03:00:00 319337-03	Paid	18,6726759079075646	100,0000000000000000000000
1ea7466eefcd42f42a7c0800e5fb03fddc	Golden Helix where	5,05903738765200	1	Canceled	1970-01-01 03:00:00 080135-03	Paid	25,89663386495881	19,6897963544934322400
21b90250586a7e48d9a4f619499b2703e9	ProgrammableWeb each	10,0001776853200	1	Shipped	1970-01-01 03:00:00 812081-03	Paid	1,03620000000000000000	100,0000000000000000000000
21cb1129d12a0b83d2d135623	OpenTheBest.com modify	9,03636687383538	1	Shipped	1970-01-01 03:00:00 263130-03	Paid	1,03620000000000000000	100,0000000000000000000000
232202c801240b83d2d135623	Abt Associates gifted	16,5002093434970385	2	Delivered	1970-01-01 03:00:00 015772-03	Paid	46,0259352110243275	46,0259352110243275
23565d92a2b43ab5f4203f92b3968	Maponics Barcelonaian	6,729811930519084	2	Shipped	1970-01-01 03:00:00 1715091-03	Paid	15,0980694802511	44,5740561422772030200
239527ff0f174a92bba3d8e38e1c233	Suddath your	15,2634585485049241	1	Delivered	1970-01-01 03:00:00 2179768-03	Paid	15,263458485049241	100,0000000000000000000000
2529052e0b24258787f287fecf9582d	Telenav awful	12,829140765932639	1	Delivered	1970-01-01 03:00:01 341601-03	Paid	12,829140765932639	100,0000000000000000000000
255bc5b35170341d892734043a3e0bb5	Code-N which	17,57687051053632	1	Shipped	1970-01-01 03:00:00 305942-03	Paid	17,57687051053632	100,0000000000000000000000
255f6548424cb083a2d7a6007d75a0175c	Simple Energy my	14,399925038973054	2	Shipping	1970-01-01 03:00:01 545885-03	Paid	38,8529384746311195	37,0626408305653150600
2618ff0a9232a18e48d8a1e6049a4f619499b2703e9	FirstPoint, Inc. somebody	8,3784566564168165	2	Shipping	1970-01-01 03:00:01 390688-03	Paid	24,847243433215802	33,71986511665954800
263a38a910f34ea6ac88a14cfa337f	Greatschools these	18,2471415465165177	1	Delivered	1970-01-01 02:59:59 937178-03	Paid	30,4644664814060981	59,89258159251505653700
28c253f4ee45997a59826e07783e150e	PIXIA Corp everything	7,0593341955841336	1	Canceled	1970-01-01 03:00:01 842019-03	Paid	7,0593341955841336	100,0000000000000000000000
2a3a83b6e181419d95915c3242b4c335	Chemical Abstracts Service a little bit	13,086889737548606	1	Delivered	1970-01-01 03:00:01 123033-03	Paid	13,086889737548606	100,0000000000000000000000
2c5943cfa584a1f696a544e5945378d7	PeerJ plenty of	2,757249822266298	3	Shipping	1970-01-01 03:00:00 356457-03	Paid	9,251507479981822700	9,251507479981822700
2d0740357393456490610662344c036	People Power great	8,0573171661424228	2	Shipping	1970-01-01 03:00:00 671807-03	Paid	29,61286357130782400	29,61286357130782400
2f411493322240b83d8e38e1c2334	Science Exchange motionless	14,92054028451464953	2	Shipping	1970-01-01 03:00:00 248073-03	Paid	10,0001776853200	12,4072820530500
31fc172472b4833a5404390de068679	Hotels.com	6,26420655165979	3	Shipping	1970-01-01 03:00:00 47156-03	Paid	40,07457263180112	16,6516285623507655200
3355b5e51d343079905b7d76cd931c	Abt Associates gifted	3,1103657152081585	1	Shipping	1970-01-01 03:00:01 599779-03	Paid	4,6727484211043275	6,75794842305605371400
34064e44c66402db6537d51f18d8c4	Greatschools these	13,9910536608223238	1	Shipped	1970-01-01 03:00:00 085436-03	Paid	13,9910536608223238	100,0000000000000000000000
358a28e910f34ea6ac88a14cfa337f	Ez-XBRL a little bit	14,862069623217442	1	Canceled	1970-01-01 03:00:00 307044-03	Paid	19,667815534590498	75,6779422170773
36d6957e6b181419d95915c3242b4c335	Datafoliox gizmo	7,1590329821614646	1	Shipping	1970-01-01 02:59:59 55,926907-03	Paid	21,98579119155384	80,95698184071619932900
36f293a0f0d7845403bd3c16a35652	Innovest Systems all	6,16642922170773	1	Shipped	1970-01-01 02:59:59 59,26907-03	Paid	6,16642922170773	100,0000000000000000000000
37f51d372284d196c54698900564	Transparago why	2,89701738194586	4	Canceled	1970-01-01 03:00:01 29735-03	Paid	33,746806331636964	8,5845675423171972800
39ab22f74d498488b81d0ebe3784576	MuckRock.com eval	8,7577575710426446	2	Delivered	1970-01-01 03:00:01 71207-03	Paid	8,7577575710426446	100,0000000000000000000000
3a350322ff77f4e4f27a4c7ab4fd30b570	Wolters Kluwer its	9,3639935280276028	2	Delivered	1970-01-01 03:00:01 01,009986-03	Paid	21,002883759885297	44,58044565348928215300
3b2b020586a6486493d96387f37f5070d0	People Power great	2,037757731599966	1	Shipping	1970-01-01 03:00:01 124759-03	Paid	2,8950694334641908	70,387136224898217600
3b77889568649068214a36f37424f16	Socato too	12,229649059469663	1	Shipping	1970-01-01 03:00:01 157588-03	Paid	24,679131420362266	49,55461721019517372400
3baa0f6e626741d89717445650142b5d	Simple Energy my	1,85439392482625	4	Shipped	1970-01-01 03:00:00 642244-03	Paid	38,8529384746311195	100,0000000000000000000000
3e25a086a2844c7bc7049c717bb6b79	Recargo nobody	5,159312345161339	1	Shipping	1970-01-01 03:00:00 902257-03	Paid	10,0000000000000000000000	100,0000000000000000000000
3e613033249688857f47935275	Stormpulse which	7,73619428529755	1	Canceled	1970-01-01 03:00:00 60743-03	Paid	3,713619428529755	100,0000000000000000000000
3f14553080484e0b316d196c54698900564	LegisStorm anything	6,54878268056564	2	Delivered	1970-01-01 03:00:01 59,161953-03	Paid	17,556846311785635	37,3004500481931147900
4355d795274d498488b81d0ebe3784576	Boston Consulting Group this	19,477038746402231	2	Shipped	1970-01-01 03:00:00 10,009986-03	Paid	19,477038746402231	100,0000000000000000000000
46152098ec65435sc2f6386e6a94048	Weather Decision Technologies there	11,58917062905076	2	Canceled	1970-01-01 03:00:00 4,28033-03	Paid	49,33230816647693	23,49634047320117994200
4b5f1ec888bf4795b1e6ac446e83779a	iRecycle Italian	4,483358940247706	1	Shipping	1970-01-01 03:00:01 410531-03	Paid	4,483358940247706	100,0000000000000000000000
4b9033194749a79c497a9c7089787c4	LegiStorm anything	11,00086363035071	1	Shipped	1970-01-01 03:00:01 62,935493-03	Paid	17,556846311785635	62,69549949918068852100
4c10be32c0b74f53c9e7693a2bc4f9	Open Data Nation Brazilian	11,3940279819836	1	Shipping	1970-01-01 03:00:00 53,1458-03	Paid	11,3940279819	

```
SELECT
    c.name AS customer_name,
    pi.track_num,
    pi.weight * 200 AS price,
    COALESCE(SUM(p.amount), 0) AS paid_amount,
    (pi.weight * 200) - COALESCE(SUM(p.amount), 0) AS debt
FROM customers c
JOIN postal_items pi ON pi.sender_id = c.id
LEFT JOIN payments p ON p.postal_item_id = pi.id
WHERE p.id IS NULL
GROUP BY c.id, pi.id
HAVING (pi.weight * 200) > COALESCE(SUM(p.amount), 0)
ORDER BY debt DESC;
```

Опять же ничего не выведет, так как все отправления всегда оплачены (можно в цикле создавать меньше платежек, и убрать ограничение на проверку оплаты посылки)

**4. Найти отправления с наибольшими задержками, сгруппированные по статусам, включая информацию о сотрудниках и почтовых отделениях**

```

WITH DelayedItems AS (
    SELECT
        pi.id AS postal_item_id,
        pi.track_num,
        pi.disp_date,
        pi.arrival_date,
        EXTRACT(DAY FROM CURRENT_DATE - pi.arrival_date) AS delay_days,
        pi.status AS postal_item_status,
        pi.post_office_id
    FROM postal_items pi
    WHERE pi.arrival_date IS NOT NULL
    AND NOT EXISTS (
        SELECT 1
        FROM status_transactions st
        JOIN postal_statuses ps ON ps.id = st.status_id
        WHERE st.postal_item_id = pi.id AND ps.status_name = 'Delivered'
    )
)
SELECT
    di.track_num,
    di.delay_days,
    di.postal_item_status,
    po.name AS post_office_name,
    e.name AS employee_name,
    ps.status_name AS current_status
FROM DelayedItems di
JOIN post_offices po ON po.id = di.post_office_id
JOIN status_transactions st ON st.postal_item_id = di.postal_item_id
JOIN employees e ON e.id = st.employee_id
JOIN postal_statuses ps ON ps.id = st.status_id
WHERE st.status_date = (SELECT MAX(status_date) FROM status_transactions WHERE post
ORDER BY di.delay_days DESC;

```

track_num	delay_days	postal_item_status	post_office_name	employee_name	current_status
b614cdab6ae44c8ca0836bda12881b6d	20057	Delivered	Inovalon it	Prince Napoleon Connelly	Shipped
a8ca4870663t49c3a16e8aa2df3e0af5	20057	Delivered	PeerJ over there	King Floy Shanahan	Shipped
b569da31428c4ea199fe1185bb07efcb	20057	Delivered	Urban Airship Elizabethan	Mr. Orland Carroll	Shipped
03c62ba35b5444dd85cad5cef1a1418	20057	Delivered	Cambridge Information Group those	King Jeffry Stoltenberg	Shipped
5c6eef4e7b6415a90ea6c1d22b658c2	20057	Delivered	Construction Monitor LLC where	Lord Nicklaus Rath	Shipped
21cb113c9e494077a5a49a03adbd301c	20057	Delivered	FindTheBest.com nobody	Dr. Lamar Herman	Shipped
a574f27ff70d34d12af29210df671df	20057	Delivered	GuideStar our	Dr. Jayson Tillman	Shipped
84bdaf72e14b40b6ac6f1d8f61b44a1a	20057	Delivered	TrustedID outrageous	Dr. London Ruecker	Shipped
2365da92aa3b43aabbf430cf92b03968	20057	Delivered	Maponics Barcelonian	Lord Dariion Ankunding	Shipped
bac72c90892c4eda881e5ed01916515a	20057	Delivered	Wheaton World Wide Moving her	Lord Chaz Collins	Shipped
d2add596d1f44680bb9d313aa344d958	20057	Delivered	Uber her	Prince Austyn Lang	Shipped
54d3a28afa434f8391dff1ebbd981df0	20057	Delivered	Rapid Cycle Solutions its	Mr. Gay Friesen	Shipped
3829d3a0f3c54c10acf06ba4d1609e51	20057	Delivered	Innovest Systems all	Prof. Frederik Cruickshank	Shipped
5baa3c8b6534445bfdf1d96ea2f22db2	20057	Delivered	Navico a little	Prof. Wyatt Runolfsson	Shipped
1a6f05dc4d5e450eae21b7a2091022bc	20057	Delivered	Maponics Barcelonian	Lord Dariion Ankunding	Shipped
0d0f42790e5f4983b66d3ee72306526a	20057	Delivered	Stormpulse friendly	King Jarrett Rippin	Canceled
58d54440ca5d420da8be35719fd4fde0	20057	Delivered	Overture Technologies your	Mr. Agustin Windler	Shipped
a134a3b5b29d4bfb7c82cde3a750dc8	20057	Delivered	Navico which	Mr. Obie Tremblay	Shipped
34964e44c6c402d6b653fd541f8dc8fb	20057	Delivered	GreatSchools these	Dr. Wilber Nicolas	Shipped
396766c0fd78450eb3dc011ba63565e2	20057	Delivered	TransparaGov why	King Gillian Hudson	Canceled
1bd2465df7344e06a01d47e6495bdc5	20057	Delivered	PeerJ plenty of	King Gayle Baumbach	Shipped
69080b910ab84a32a24e15be3be08f08	20057	Delivered	Weather Decision Technologies there	Lord Raymundo Effertz	Shipped
c17fae8c3dc894ab8be5fe39d5c26424d	20057	Delivered	Lawdragon any	Prof. Coy Dare	Canceled
1b856ac597a242a0a66952a8ef333eb	20057	Delivered	Arpin Van Lines what	Prof. Stanley Borer	Shipping
5604fb0f2cdc43baa1fc1d3d52b3a8f	20057	Delivered	Urban Airship Elizabethan	Mr. Orland Carroll	Shipped
f3151e178328476e9321c5ea0835bfdc	20057	Delivered	Harris Corporation this	Lord Burley Harris	Canceled
2de7c403578345649c940c6e23e4c036	20057	Delivered	People Power great	Prof. Jettie Kerluke	Shipped
74183832ba09454488e81dfc8fa881f0	20057	Delivered	SpeSo Health any	King Dane Reilly	Canceled
335bb5ea51d344079989b7d76cd931c	20057	Delivered	Abt Associates gifted	Prince Randi Yundt	Shipping
7fad9f6c7f084952b6ce209db7b2daaa	20057	Delivered	FarmLogs Putinist	King Herman Cartwright	Shipping
a64c2ca8db7544dbac20825542af0474	20057	Delivered	Factset everybody	Prof. Jameson Ondricka	Canceled
fdcebaaca76e4a98bd6a0acf8cd3fe2	20057	Delivered	LegiStorm many	Lord Jerod Gleason	Shipping
6b5783f8ae9c4f5fb5124d7892ab7e5f	20057	Delivered	MarketSense great	King Vladimir McGlynn	Shipped
df59e1cd2c40087559999a4b4de3c	20057	Delivered	eInstitutional those	Lord Nasir Marvin	Canceled
d143ac00b41c4d8b9c8b448a4b74bc71	20057	Delivered	VisualDoD, LLC hilarious	Prince Dameon Koelpin	Shipping
194e6f8fd6c614e6bb81d4df0d3515c6c	20057	Delivered	Avalara what	Dr. Kurt Christiansen	Shipping
a0b2ea31b984416d941cd07cc3ceeedf	20057	Delivered	realtor.com somebody	Dr. Harry Heathcote	Shipping
c9ec64f303b84e4c921b7604979d580	20057	Delivered	Orlin Research lemony	Prince Ralph Spinka	Shipping
cb24dd3f0c9466f80fdf36854d866b5	20057	Delivered	OnStar everyone	Prof. Armando Morar	Shipping
ed6c26277cb146078d5cd9b2ec949cbf	20057	Delivered	Consumer Reports lots of	Prince Cruz Waelchi	Shipping
4b90831914e74fa89ca1cd78987c3fac	20057	Delivered	LegiStorm anything	Prof. Marques Dibbert	Shipped
eddf6a94cf7e4d6a9dd3adbdd59488b5	20057	Delivered	Inovalon it	Prince Napoleon Connelly	Shipping
59c67cd905e49f0b75aa87fe7d2dbc1	20057	Delivered	Nautilytics somebody	Mr. Darwin Kerluke	Shipping
c66d2c90d2974189b6f92927aee2462e	20057	Delivered	Marinexplore, Inc. those	Mr. Kayleigh Mraz	Shipping
314cc122472b4e33a5494e90dee92b	20057	Delivered	HopStop whose	Dr. Kenny Dickinson	Shipping
f3fb798740c04eeba7e8de94245d6835	20057	Delivered	DataMarket anyone	Lord Abraham Hermann	Shipped
66b9913931084c6b8a272fb3033a89a	20057	Delivered	HopStop whose	Dr. Kenny Dickinson	Shipping
639e4b81f23242ffacbb50bd551c2414	20057	Delivered	OTC Markets Asian	Dr. Norris Doyle	Canceled
8d4ecb8a35044517a025804a7cf4f527	20057	Delivered	Junar, Inc. prickling	Lord Darwin Gutkowski	Shipping
3b2b200586ad48649d39b637f35707d0	20057	Delivered	People Power great	Prof. Jettie Kerluke	Shipping

(50 rows)

## 5. Запрос извлекает информацию о статусах транзакций для определенного товара

```

SELECT
    pi.id AS postal_item_id,
    pi.track_num AS track_number,
    ps.status_name AS status_name,
    MAX(st.status_date) AS last_status_date,
    e.name AS employee_name,
    e.position AS employee_position,
    po.name AS post_office_name,
    COUNT(st.id) AS total_transactions
FROM
    status_transactions st
JOIN postal_items pi ON st.postal_item_id = pi.id
JOIN postal_statuses ps ON st.status_id = ps.id
JOIN employees e ON st.employee_id = e.id
JOIN post_offices po ON e.post_office_id = po.id
WHERE
    pi.id = 2
GROUP BY
    pi.id, pi.track_num, ps.status_name, e.name, e.position, po.name
ORDER BY
    last_status_date DESC;

```

postal_item_id	track_number	status_name	last_status_date	employee_name	employee_position	post_office_name	total_transactions
2   eaf141da84fd4c4ebffff79f0eff543d3	Delivered	1970-01-01 03:00:00.652216+03   Mr. Dalton Gleason   Director   SmartAsset somebody   1					
2   eaf141da84fd4c4ebffff79f0eff543d3	Shipping	1970-01-01 02:59:59.734259+03   Mr. Dalton Gleason   Director   SmartAsset somebody   1					
2   eaf141da84fd4c4ebffff79f0eff543d3	Shipped	1970-01-01 02:59:59.467087+03   Mr. Dalton Gleason   Director   SmartAsset somebody   1					

(3 rows)

## 6. Рекурсивно извлекаем историю транзакции для посылки

```

WITH RECURSIVE StatusCTE AS (
    SELECT id, postal_item_id, status_id, status_date, description, employee_id
    FROM status_transactions
    WHERE postal_item_id = 5 AND status_id = 1
    UNION ALL
    SELECT st.id, st.postal_item_id, st.status_id, st.status_date, st.description, st.employee_id
    FROM status_transactions st
    INNER JOIN StatusCTE cte ON st.postal_item_id = cte.postal_item_id
    WHERE (
        (cte.status_id = 1 AND st.status_id = 2) OR
        (cte.status_id = 2 AND st.status_id IN (3, 4))
    )
)
SELECT * FROM StatusCTE;

```

id	postal_item_id	status_id	status_date	description	employee_id
20291	5	1	1970-01-01 03:00:00.097264+03	Shipment has been dispatched. It is now on the way.	7047
20350	5	2	1970-01-01 03:00:01.134963+03	Shipping is ongoing, and the item is expected to arrive soon.	7047
20390	5	3	1970-01-01 02:59:59.600653+03	Your item has been delivered and signed for.	7047

(3 rows)