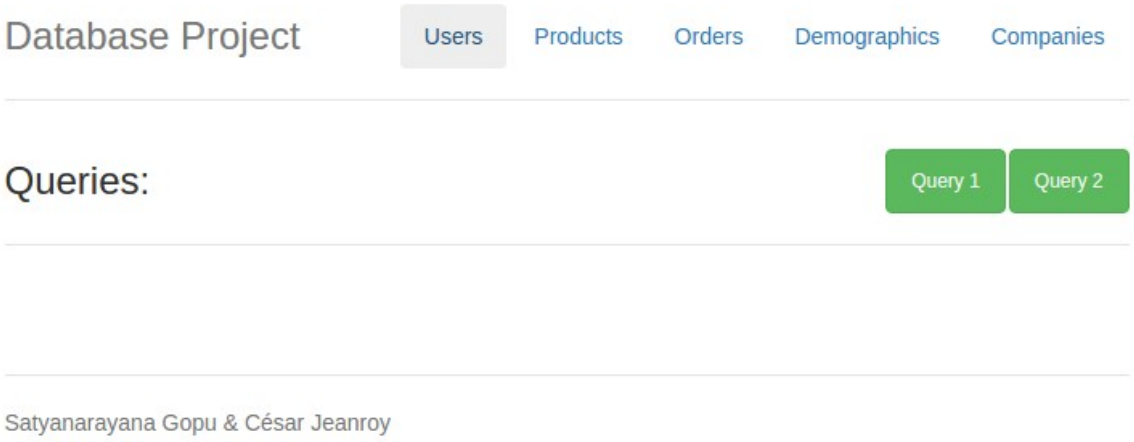
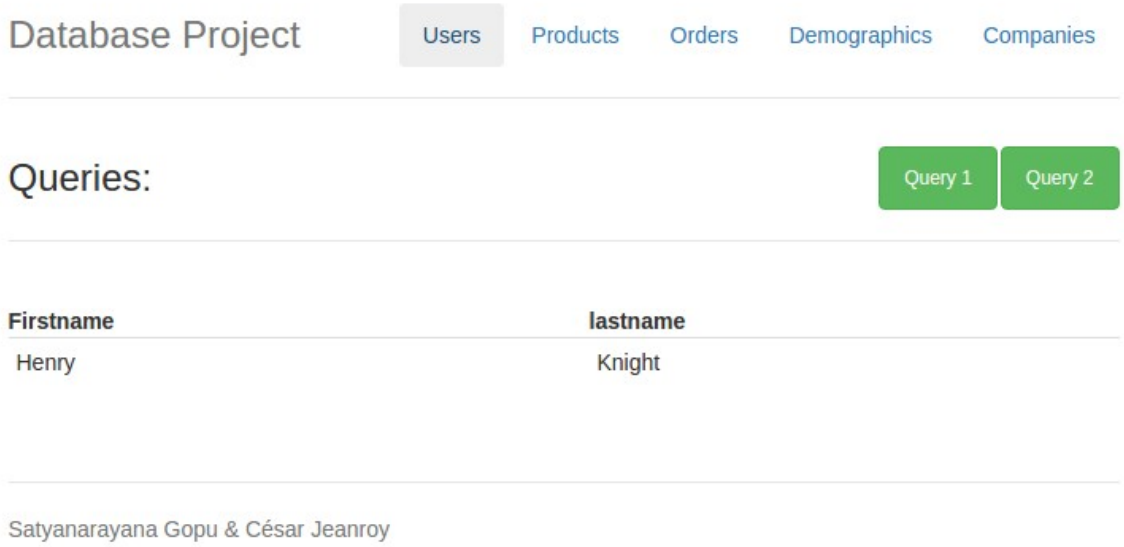
**User Action 1** – select firstname, lastname of user with an email of apache.org domain

**Query Executed :** SELECT firstname, lastname FROM users WHERE email REGEXP '.*@apache.org';

**Screen shot Before:**




**Screen shot After:**

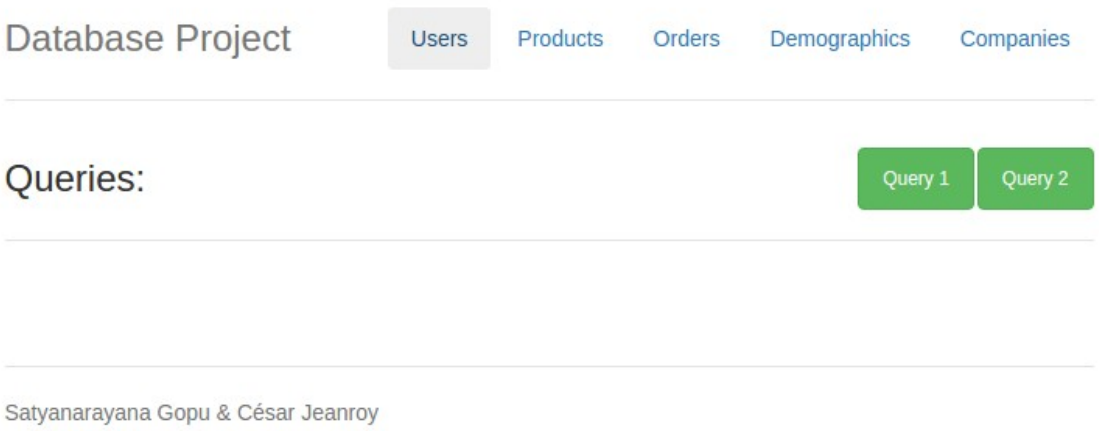



**Constraints enforced:** none

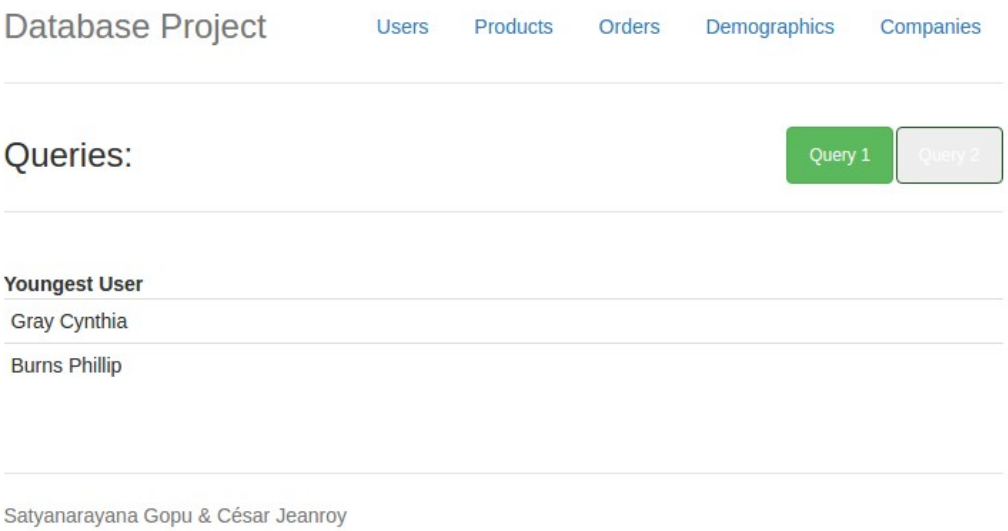
**User Action 2** – Find the youngest user

**Query Executed :**
```
SELECT CONCAT(lastname, ' ', firstname) AS 'Youngest User' FROM
    users WHERE date_birth <= ALL(SELECT date_birth FROM users);
```

**Screen shot Before:**




**Screen shot After:**

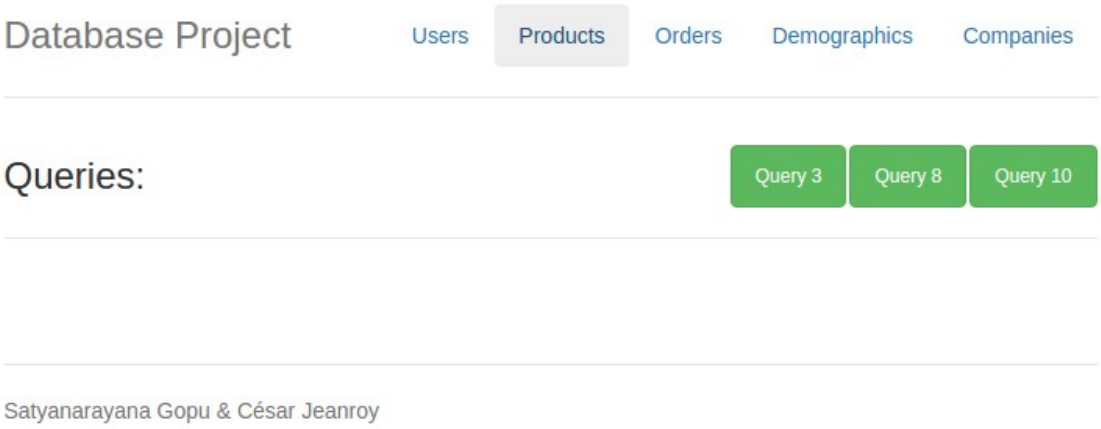



**Constraints enforced:** none

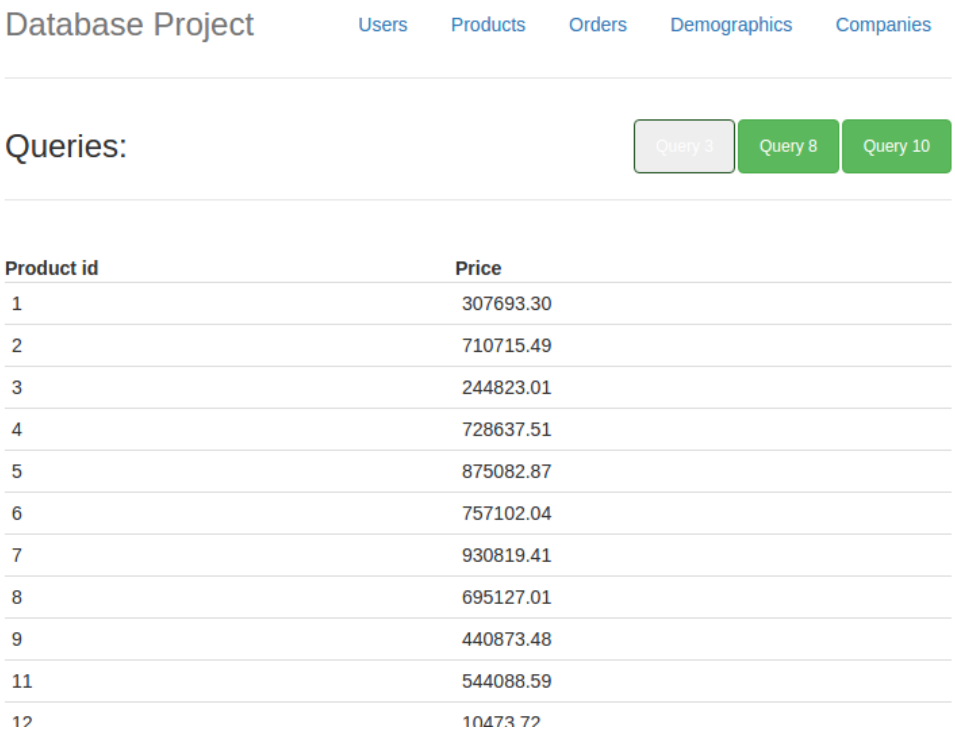
**User Action 3** - select the products linked to a deleted category

**Query Executed :** SELECT product_id, price FROM products WHERE category_name IN
(SELECT category_name FROM categories WHERE deleted_at IS NOT NULL);

**Screen shot Before:**




**Screen shot After:** (* query resulting way too many results to fit in a screen shot)

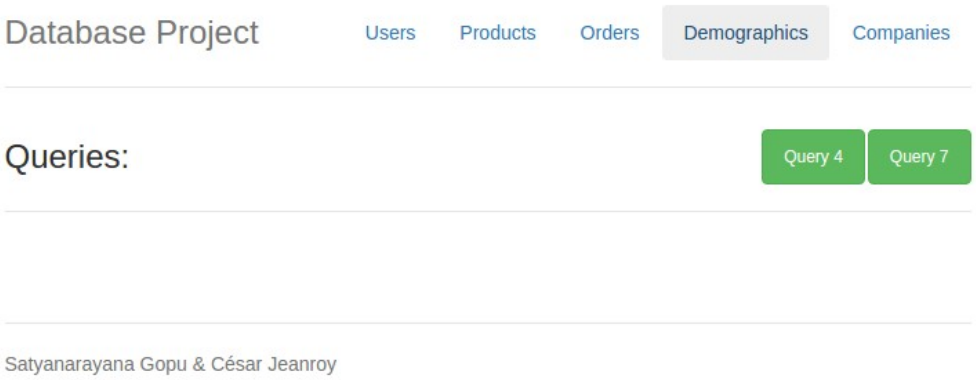



**Constraints enforced:** none

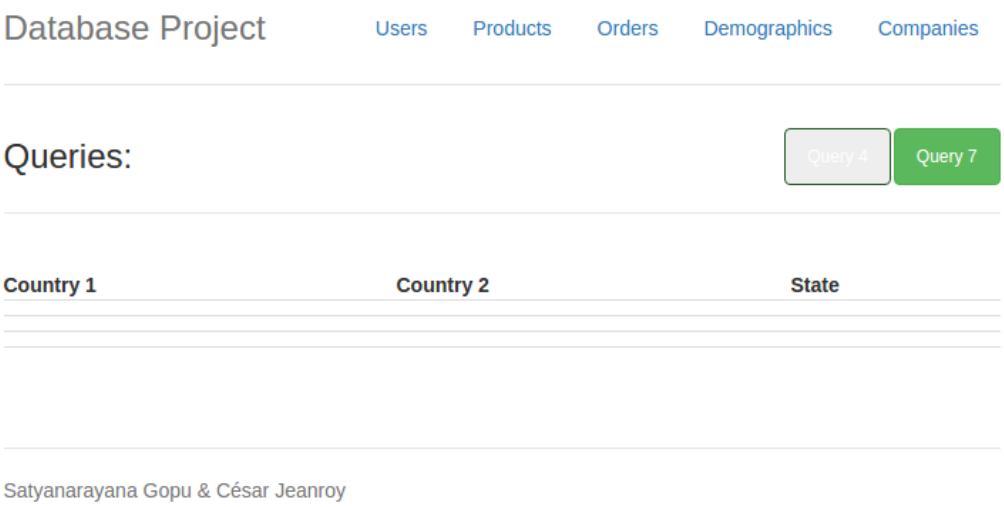
**User Action 4** – Find the countries that have at least one city name in common.

**Query Executed :** SELECT A.country, B.country, A.state FROM demographics A, demographics B WHERE A.country != B.country AND A.city = B.city;

**Screen shot Before:**




**Screen shot After:**

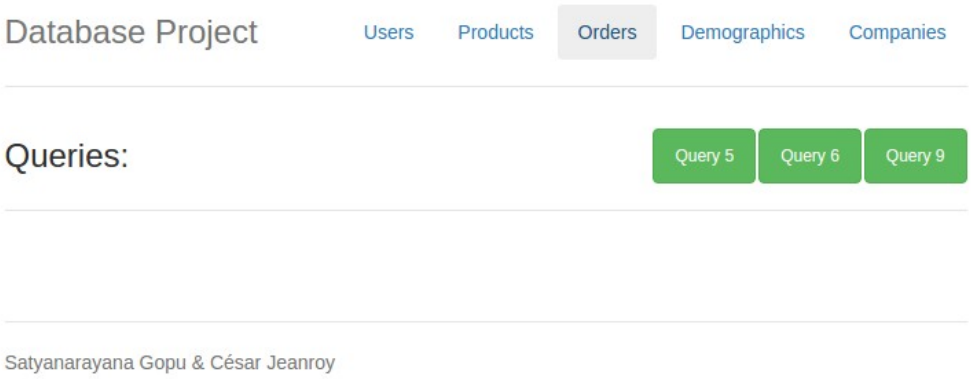



**Constraints enforced:** none

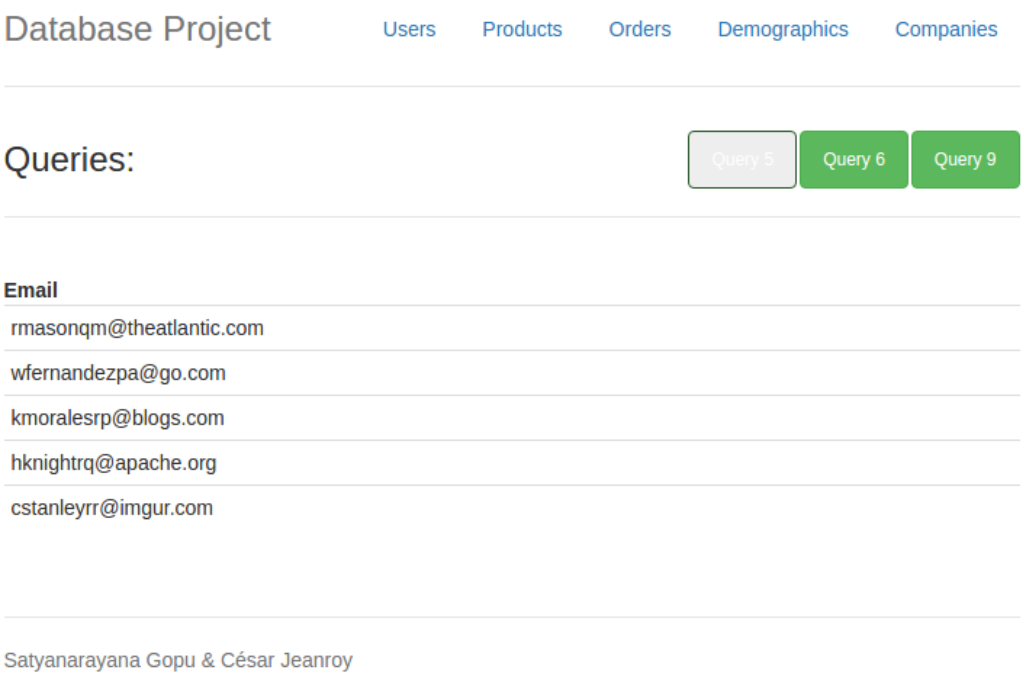
**User Action 5** – select the email of users who have submitted an order with one item and a three day delivery.

**Query Executed :** SELECT DISTINCT o.email FROM orders o NATURAL JOIN items i NATURAL JOIN deliveries d WHERE d.type = '3 days' AND i.quantity = 1;

**Screen shot Before:**




**Screen shot After:**

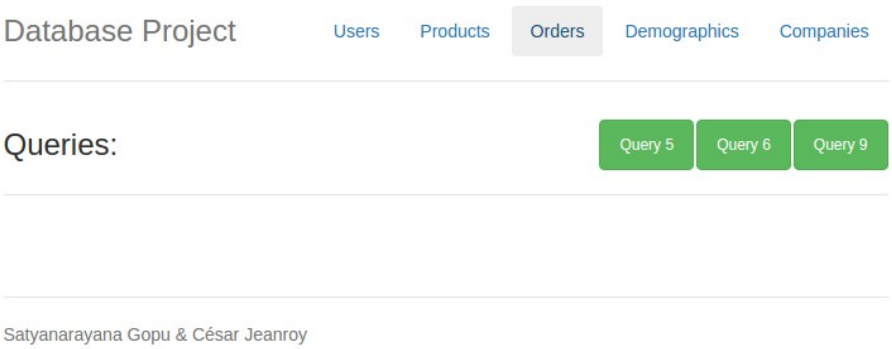



**Constraints enforced:** none

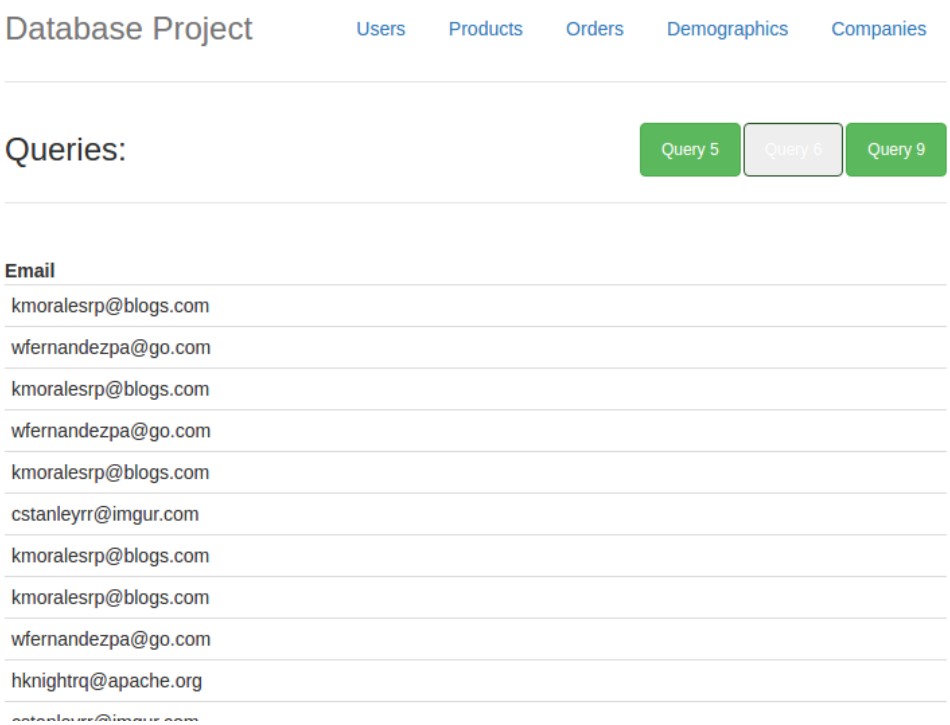
**User Action 6** – Find the user(s) who bought the most expensive product

**Query Executed :** SELECT email FROM orders NATURAL JOIN items NATURAL JOIN products WHERE price >= ALL(SELECT price FROM products NATURAL JOIN items NATURAL JOIN orders);

**Screen shot Before:**




**Screen shot After:** (* query resulting way too many results to fit in a screen shot)

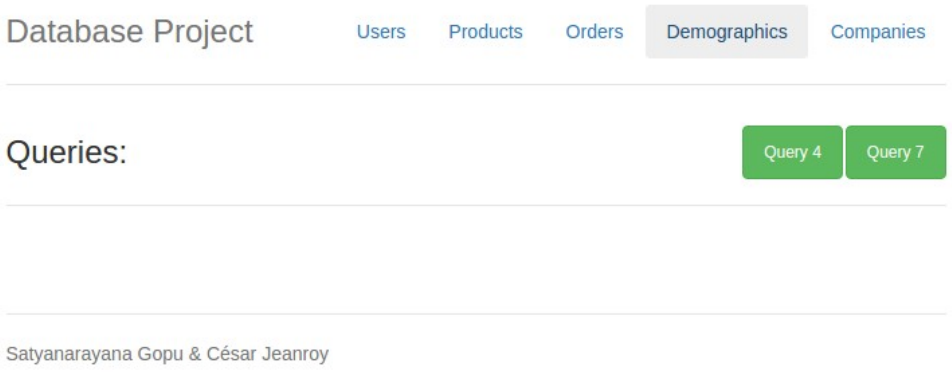



**Constraints enforced:** none

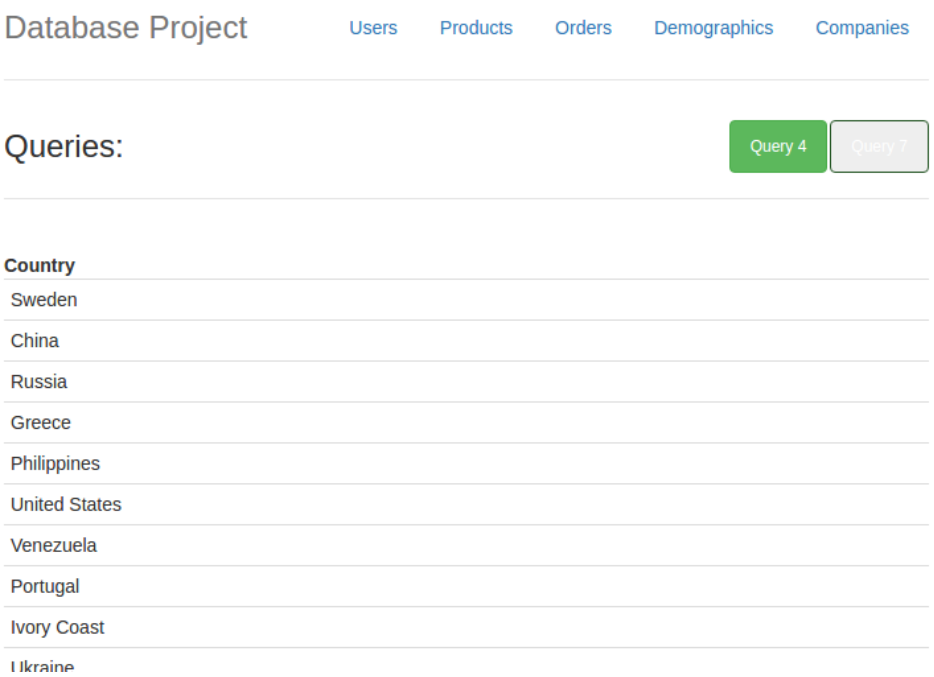
**User Action 7** – select all the countries listed in the database.

**Query Executed :** SELECT country AS 'countries listed' FROM ((SELECT country FROM companies) UNION (SELECT country FROM demographics) UNION (SELECT country FROM addresses)) A;

**Screen shot Before:**




**Screen shot After:**

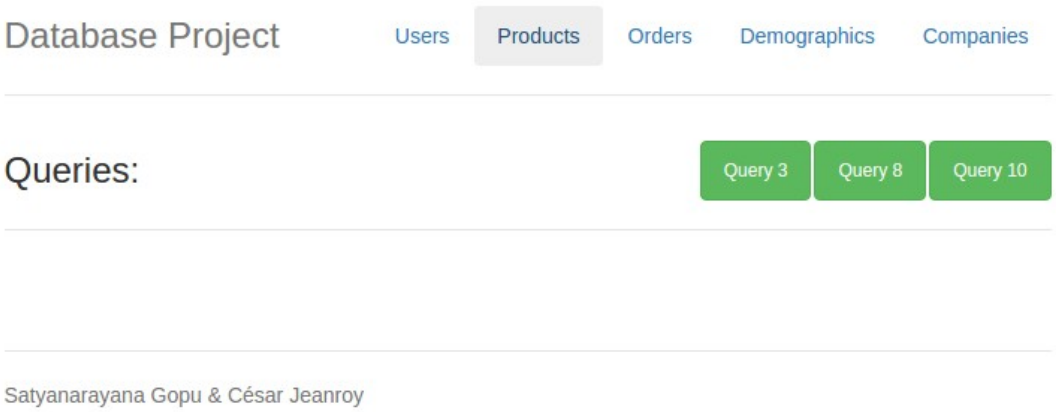



**Constraints enforced:** none

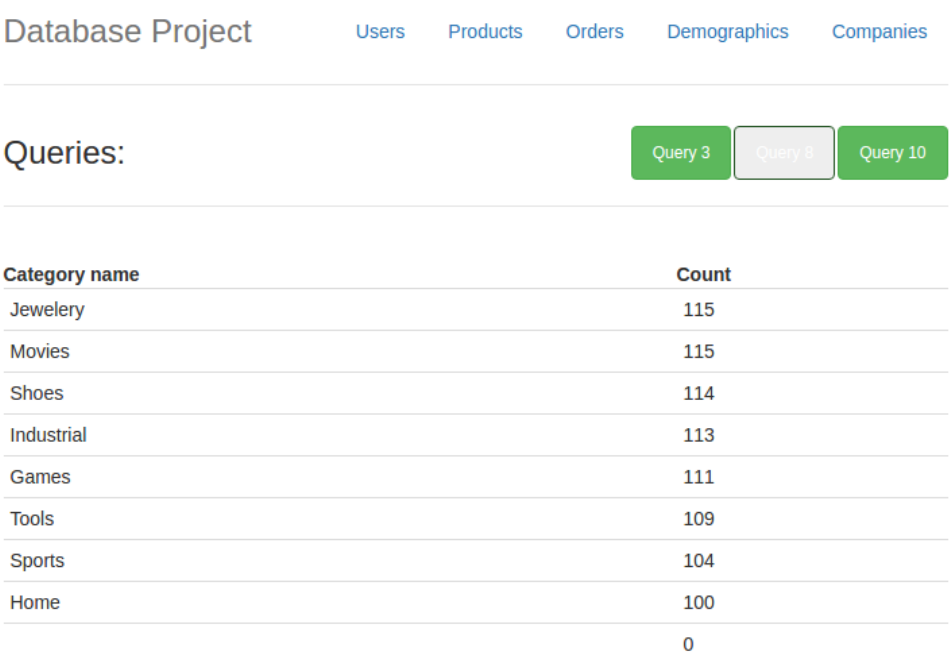
**User Action 8** – Display each category with the number of products in it sorted on the number of products

**Query Executed :** SELECT category_name, count(category_name) FROM products GROUP BY category_name ORDER BY count(category_name) DESC;

**Screen shot Before:**




**Screen shot After:**



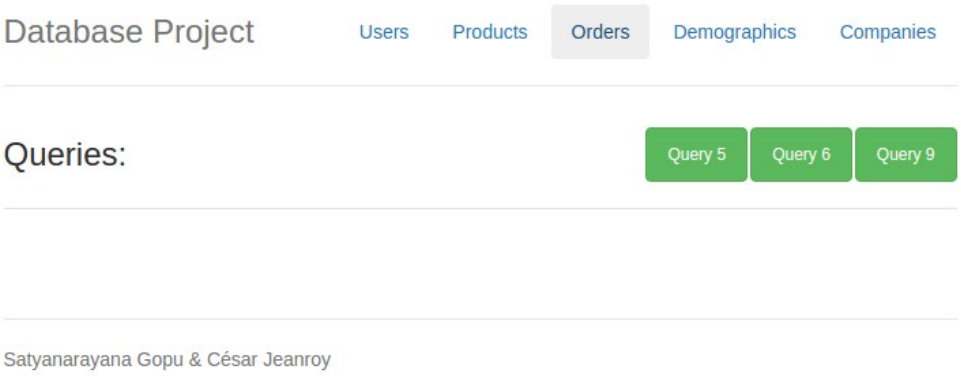

| Category name | Count |
|---|---|
| Jewelery | 115 |
| Movies | 115 |
| Shoes | 114 |
| Industrial | 113 |
| Games | 111 |
| Tools | 109 |
| Sports | 104 |
| Home | 100 |
| | 0 |

**Constraints enforced:** none

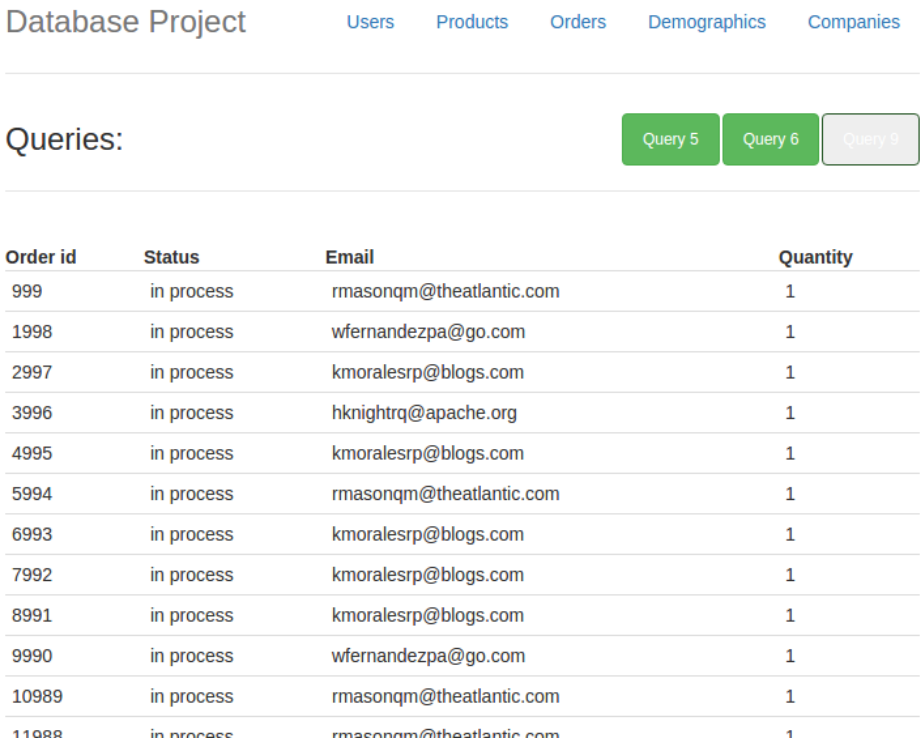
**User Action 9** – select orders sorted on quantity of their items.

**Query Executed :** SELECT order_id, status, email, quantity FROM orders NATURAL JOIN items ORDER BY items.quantity DESC LIMIT 1000;

**Screen shot Before:**




**Screen shot After:** (* query resulting way too many results to fit in a screen shot)



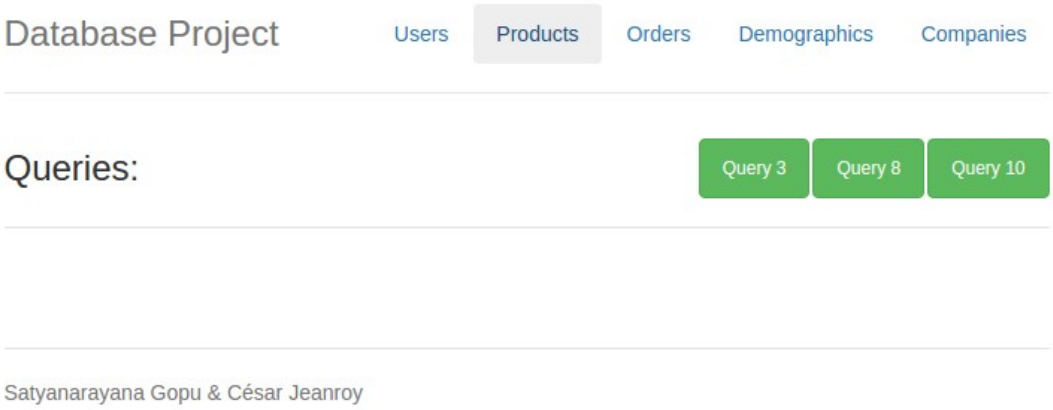

| Order id | Status | Email | Quantity |
|---|---|---|---|
| 999 | in process | rmasonqm@theatlantic.com | 1 |
| 1998 | in process | wfernandezpa@go.com | 1 |
| 2997 | in process | kmoralesrp@blogs.com | 1 |
| 3996 | in process | hknightrq@apache.org | 1 |
| 4995 | in process | kmoralesrp@blogs.com | 1 |
| 5994 | in process | rmasonqm@theatlantic.com | 1 |
| 6993 | in process | kmoralesrp@blogs.com | 1 |
| 7992 | in process | kmoralesrp@blogs.com | 1 |
| 8991 | in process | kmoralesrp@blogs.com | 1 |
| 9990 | in process | wfernandezpa@go.com | 1 |
| 10989 | in process | rmasonqm@theatlantic.com | 1 |
| 11988 | in process | rmasonqm@theatlantic.com | 1 |

**Constraints enforced:** none

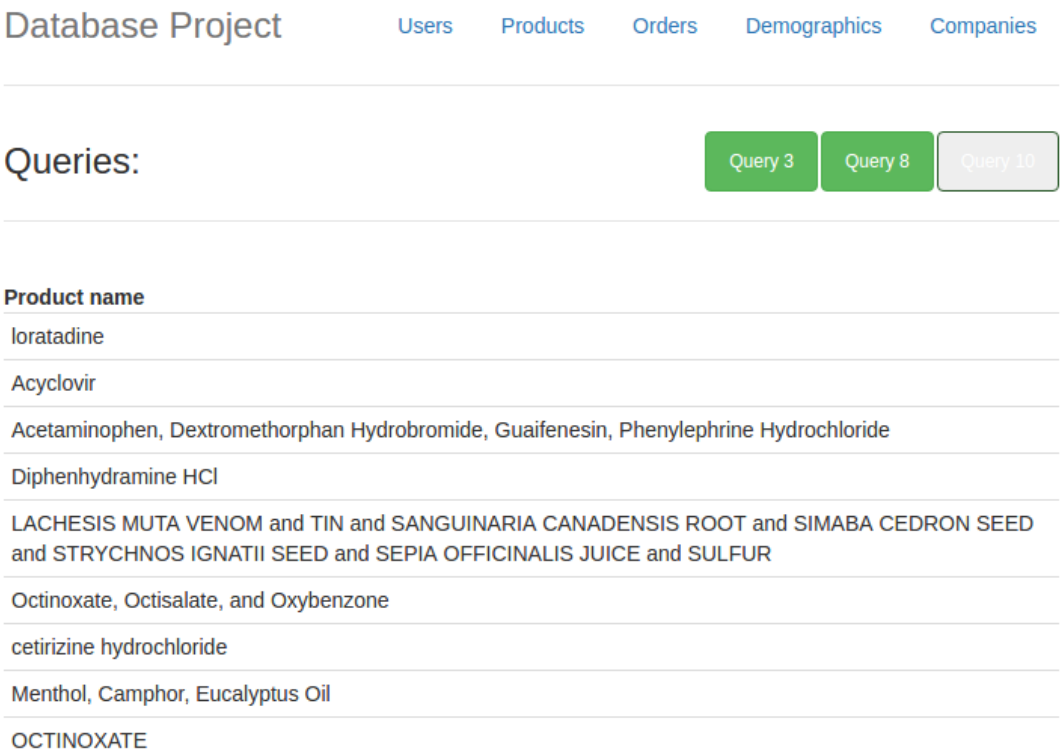
**User Action 10** – Return the list of products that have never been bought

**Query Executed :** SELECT DISTINCT name FROM products where product_id NOT IN (SELECT DISTINCT product_id FROM items);

**Screen shot Before:**




**Screen shot After:** (* query resulting way too many results to fit in a screen shot)

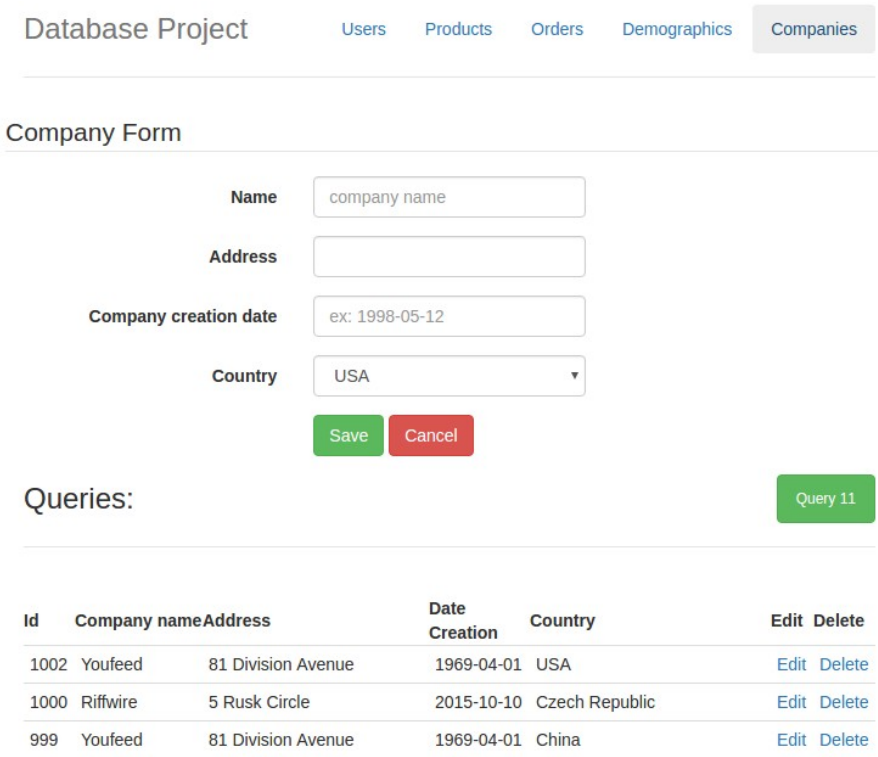



**Constraints enforced:** none

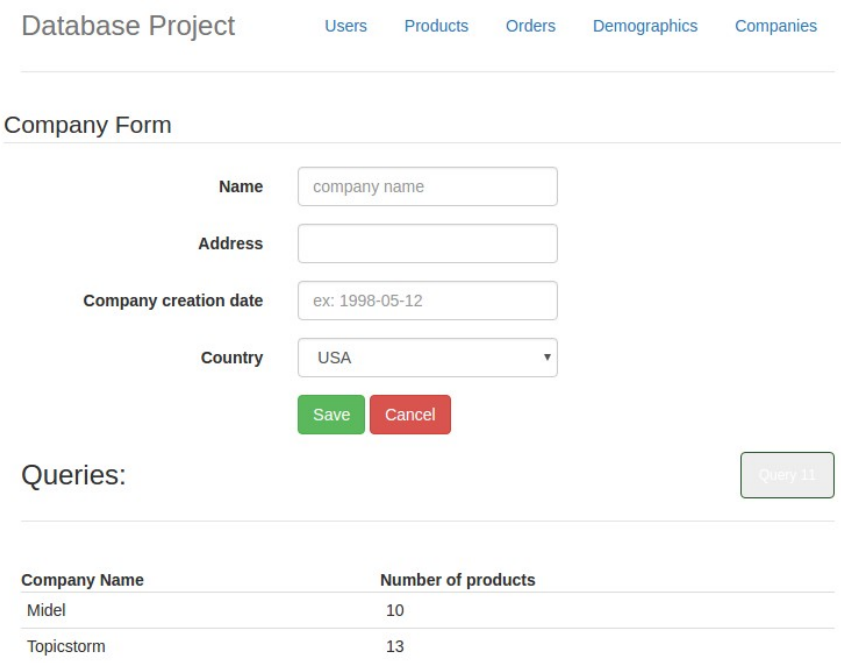
**User Action 11** – Find the companies that sell a minimum of 10 products

**Query Executed :** SELECT company_name, count(product_id) 'Number of products' FROM companies A, products B WHERE A.company_id = B.company_id GROUP BY company_name HAVING count(product_id) >= 10;

**Screen shot Before:**

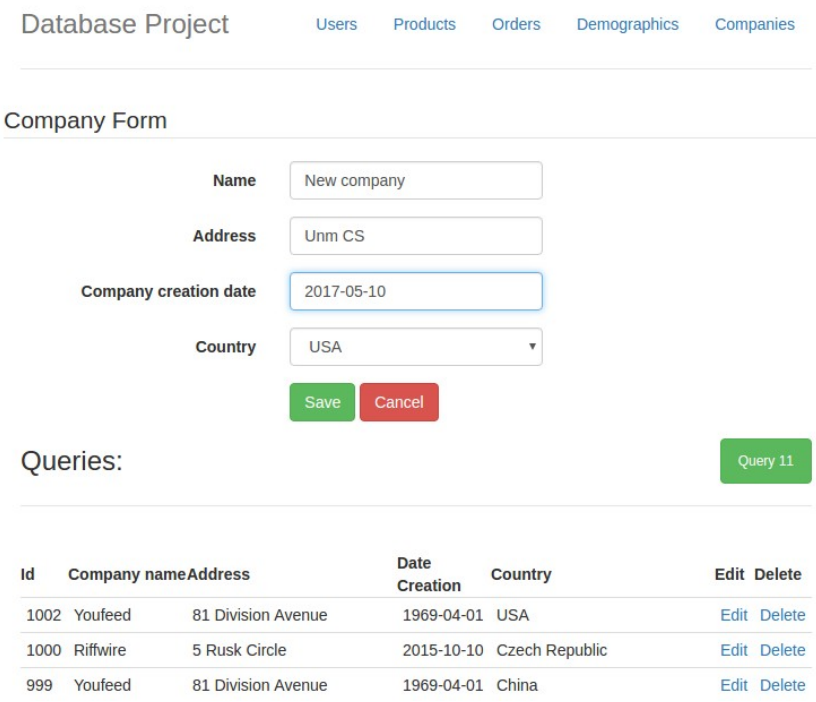



**Screen shot After:**

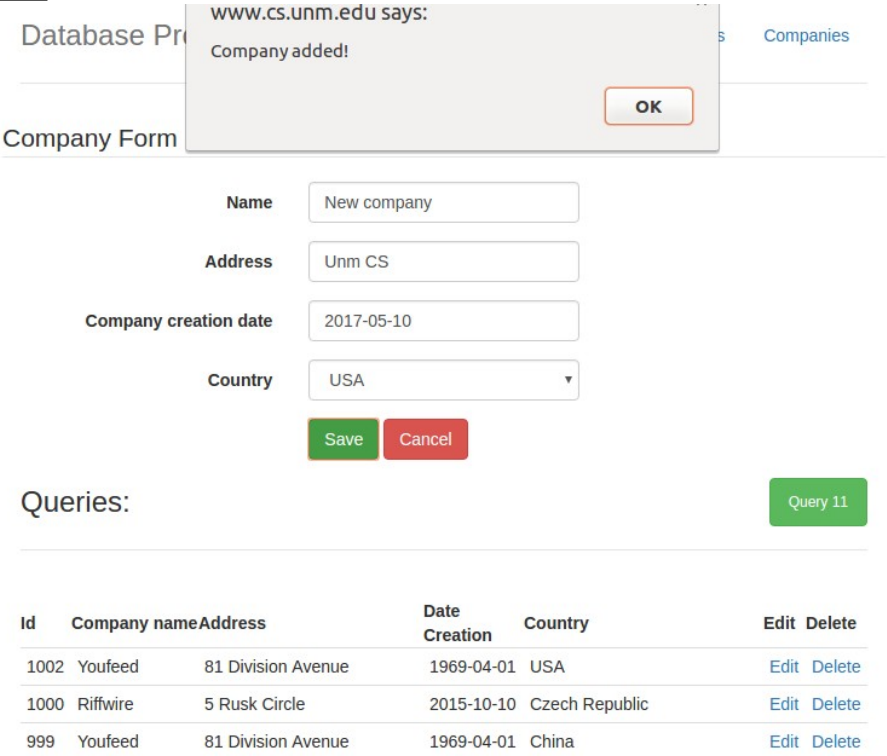



**Constraints enforced:** none

**User Action 12** – Insert into companies
**Query Executed :** Insert into
companies(company_name,hq_address,date_creation,country) VALUES();
**Screen shot Before:**

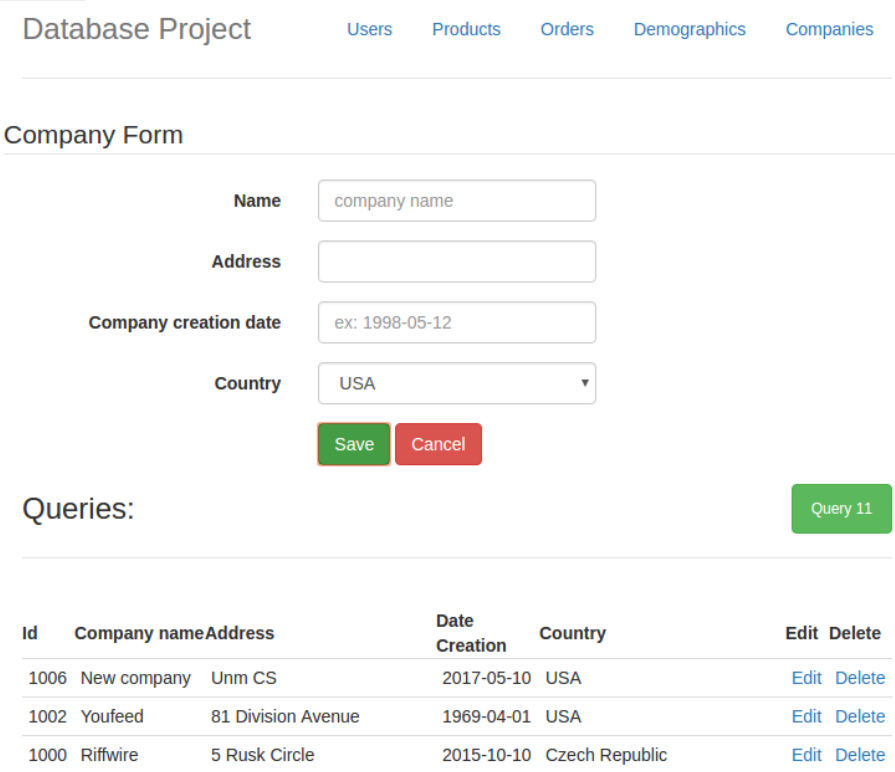



**Screen shot After:**

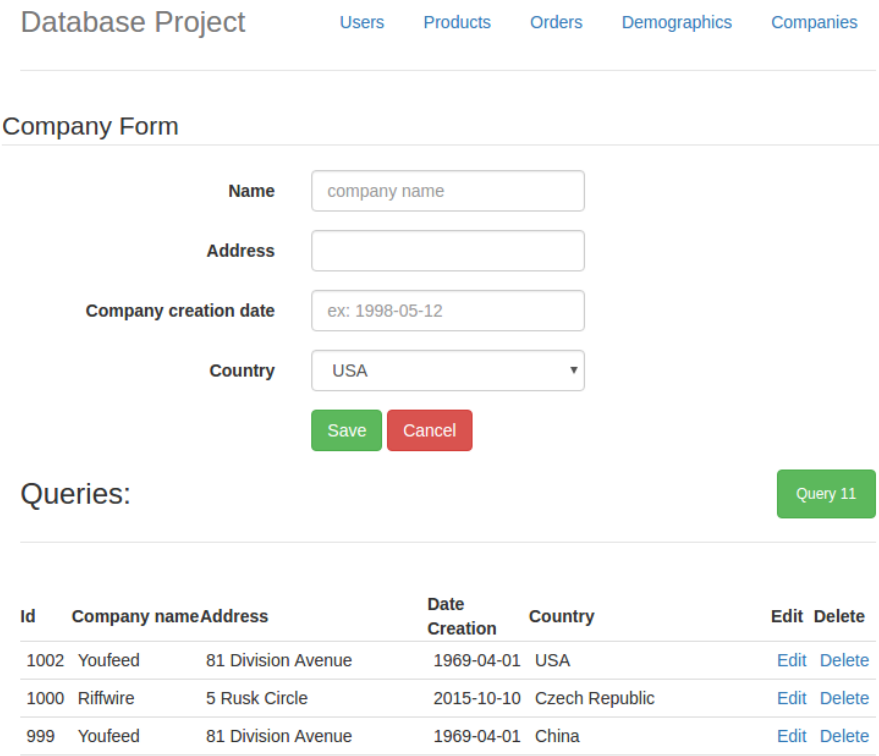



**Constraints enforced:** no null values are accepted, and date should be properly formatted and after 1990.

**User Action 13** – delete from companies
**Query Executed :** Delete from companies where id = x;
**Screen shot Before:**




**Screen shot After:**




**Constraints enforced:** none