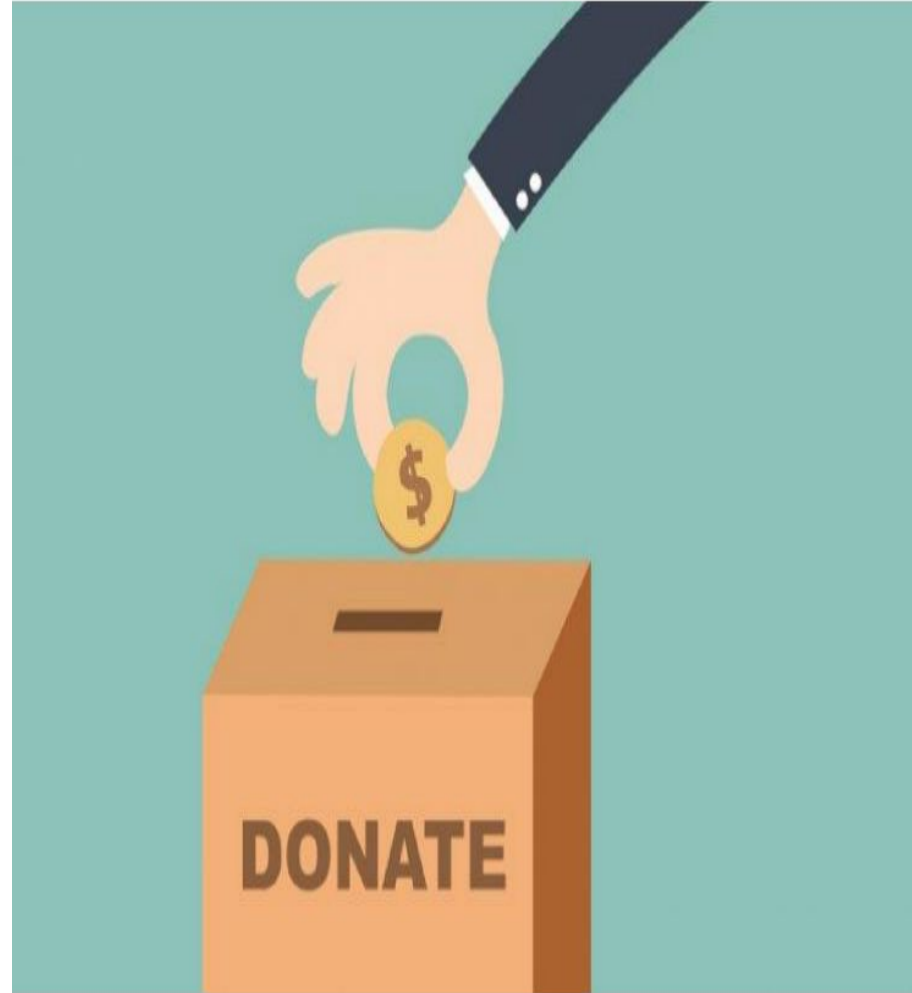


# Education for All Case Study

An SQL capstone project  
work at 10Alytics



# Our Objective

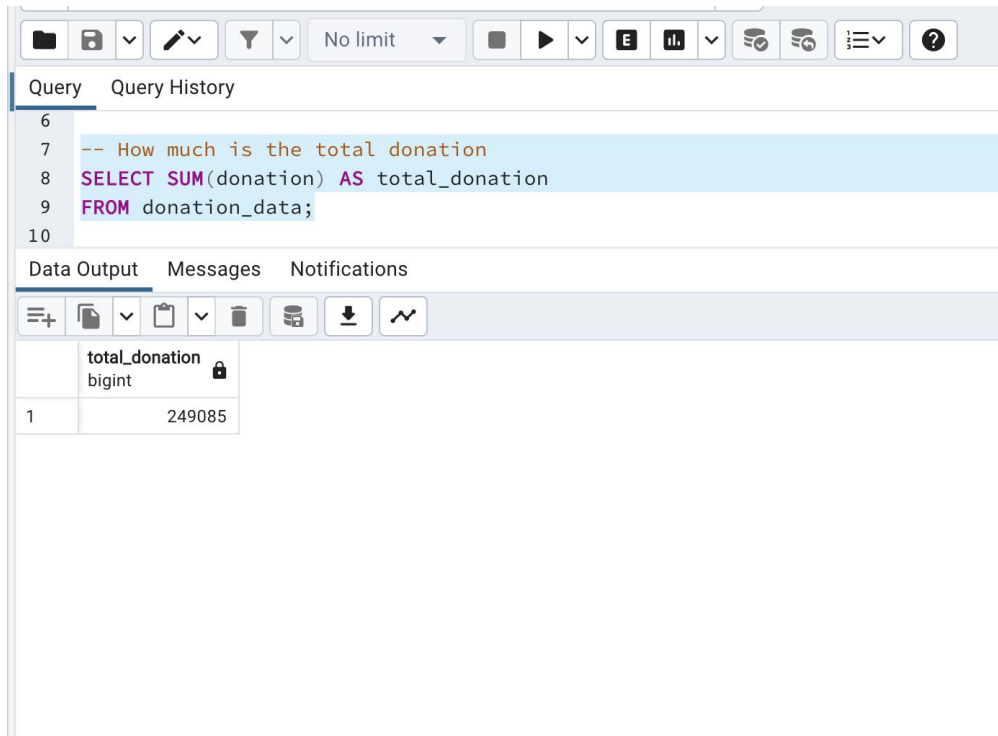
1. Increase the number of donors in our database
2. Increase the frequency of donation by donors
3. Increase the value of donation in our database

# Our Approach

After connecting to our database, we were able to run queries to answer a few business question and as a result, recommend solution to meet the business objectives listed in the previous slides

I performed queries including, JOIN, ORDER BY, WHERE, GROUP BY etc to create different tables with information needed to make a good business decision

# How much is the total donation?



The screenshot shows a SQL query editor interface. The top toolbar contains icons for file operations, query execution, and settings. The query editor has two tabs: 'Query' and 'Query History'. The 'Query' tab is active, showing a SQL query. The query is as follows:

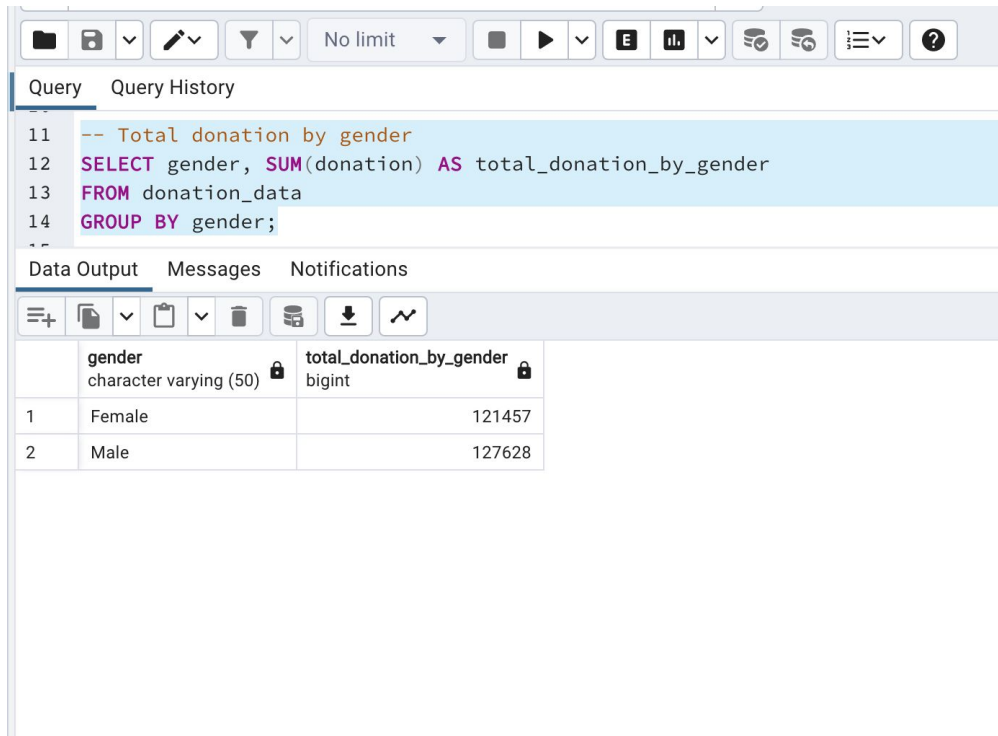
```
6
7 -- How much is the total donation
8 SELECT SUM(donation) AS total_donation
9 FROM donation_data;
10
```

Below the query editor, there are three tabs: 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with the results of the query. The table has one column, 'total\_donation', and one row with the value 249085.

	total_donation bigint
1	249085

The total donation in our database  
is **\$249085**

# What is the total donation by gender?



The screenshot shows a SQL query editor interface. At the top is a toolbar with icons for file operations, filters, and execution. Below the toolbar are tabs for 'Query' and 'Query History'. The 'Query' tab is active, displaying a SQL query. Below the query editor are tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with two columns: 'gender' and 'total\_donation\_by\_gender'. The table contains two rows of data: 'Female' with a total donation of 121457, and 'Male' with a total donation of 127628.

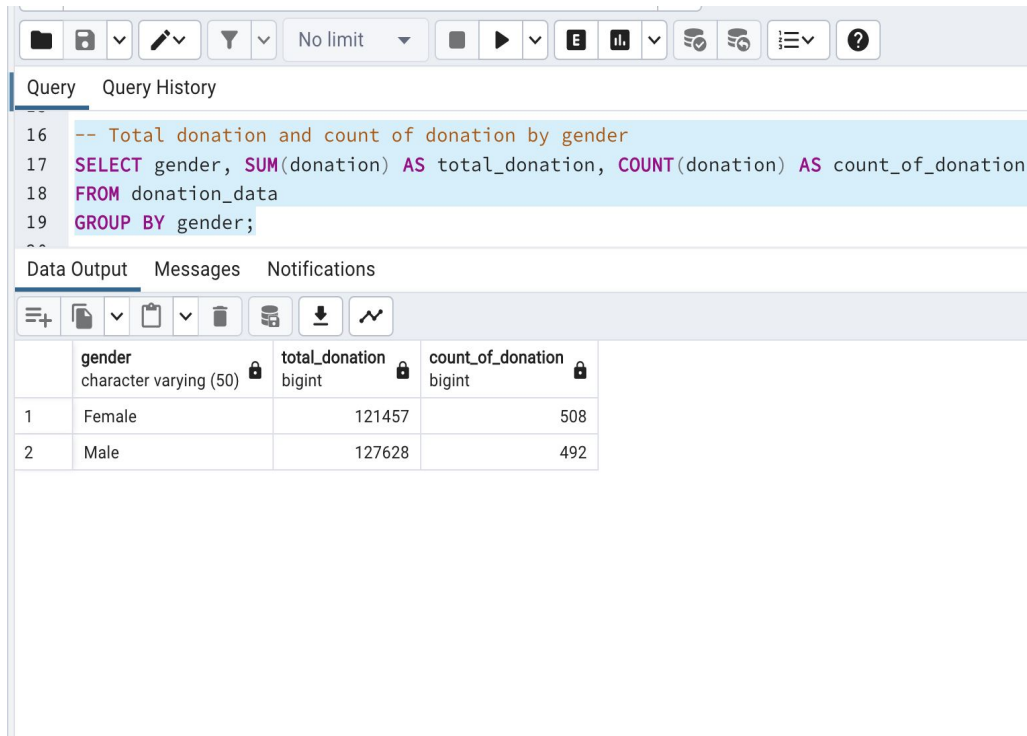
```
11 -- Total donation by gender
12 SELECT gender, SUM(donation) AS total_donation_by_gender
13 FROM donation_data
14 GROUP BY gender;
```

	gender character varying (50)	total_donation_by_gender bigint
1	Female	121457
2	Male	127628

The total donation from female donors is **\$121,457**

The total donation from male donors is **\$127,628**

# Show the total donation and number of donations by gender



The screenshot shows a SQL query editor interface. At the top is a toolbar with icons for file operations, filters, and execution. Below the toolbar are tabs for 'Query' and 'Query History'. The 'Query' tab is active, displaying a SQL query. Below the query editor are tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with the results of the query. The table has four columns: an index, 'gender', 'total\_donation', and 'count\_of\_donation'. There are two rows of data: one for 'Female' and one for 'Male'.

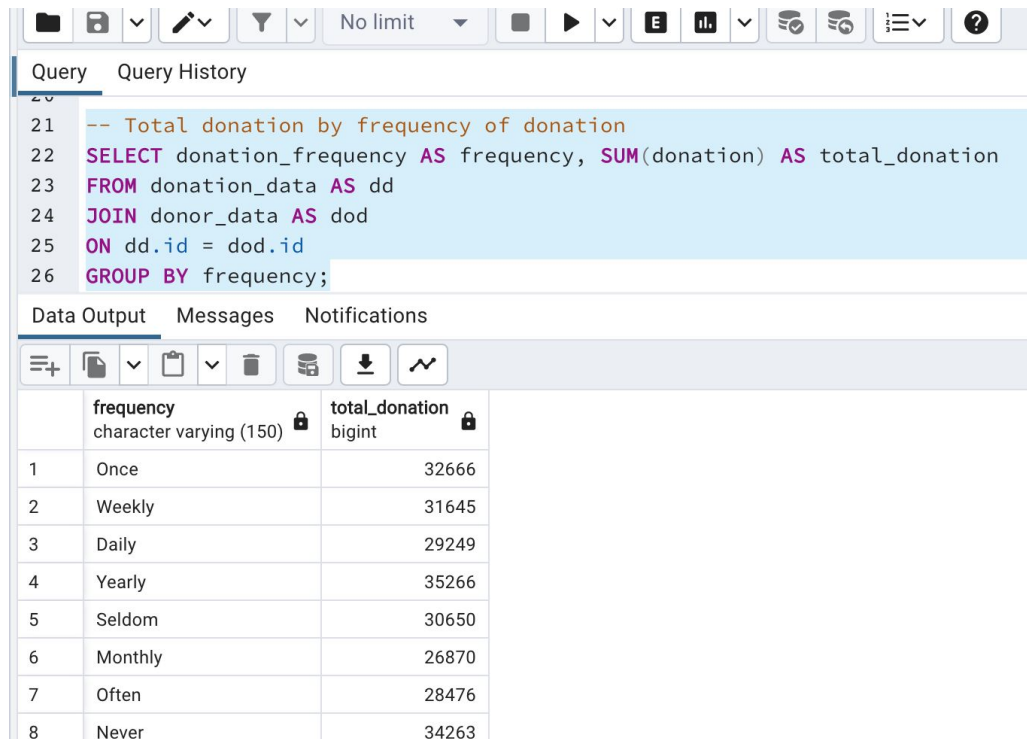
```
16 -- Total donation and count of donation by gender
17 SELECT gender, SUM(donation) AS total_donation, COUNT(donation) AS count_of_donation
18 FROM donation_data
19 GROUP BY gender;
```

	gender character varying (50)	total_donation bigint	count_of_donation bigint
1	Female	121457	508
2	Male	127628	492

The total donation from female donors is **\$121,457** and count of **508**

The total donation from male donors is **\$127,628** and count of **492**

# Total donation made by frequency of donation

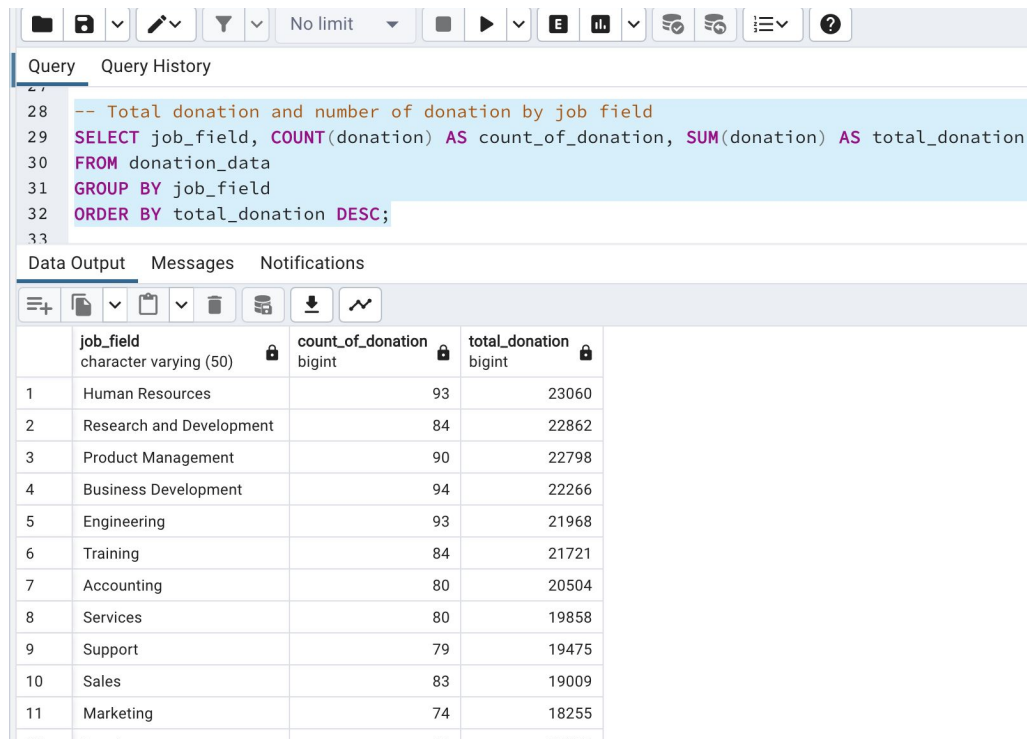


```
21 -- Total donation by frequency of donation
22 SELECT donation_frequency AS frequency, SUM(donation) AS total_donation
23 FROM donation_data AS dd
24 JOIN donor_data AS dod
25 ON dd.id = dod.id
26 GROUP BY frequency;
```

	frequency character varying (150)	total_donation bigint
1	Once	32666
2	Weekly	31645
3	Daily	29249
4	Yearly	35266
5	Seldom	30650
6	Monthly	26870
7	Often	28476
8	Never	34263

One time donors either **yearly**, **once** or **never** donate actually do the most as they have the higher figures compared to the monthly, daily and weekly donors.

# Total donation and number of donation by Job field



The screenshot shows a SQL IDE interface. At the top is a toolbar with icons for file operations, query execution, and settings. Below the toolbar are tabs for 'Query' and 'Query History'. The 'Query' tab is active, displaying a SQL query. Below the query editor are tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with the results of the query. The table has three columns: 'job\_field', 'count\_of\_donation', and 'total\_donation'. The data is sorted by 'total\_donation' in descending order.

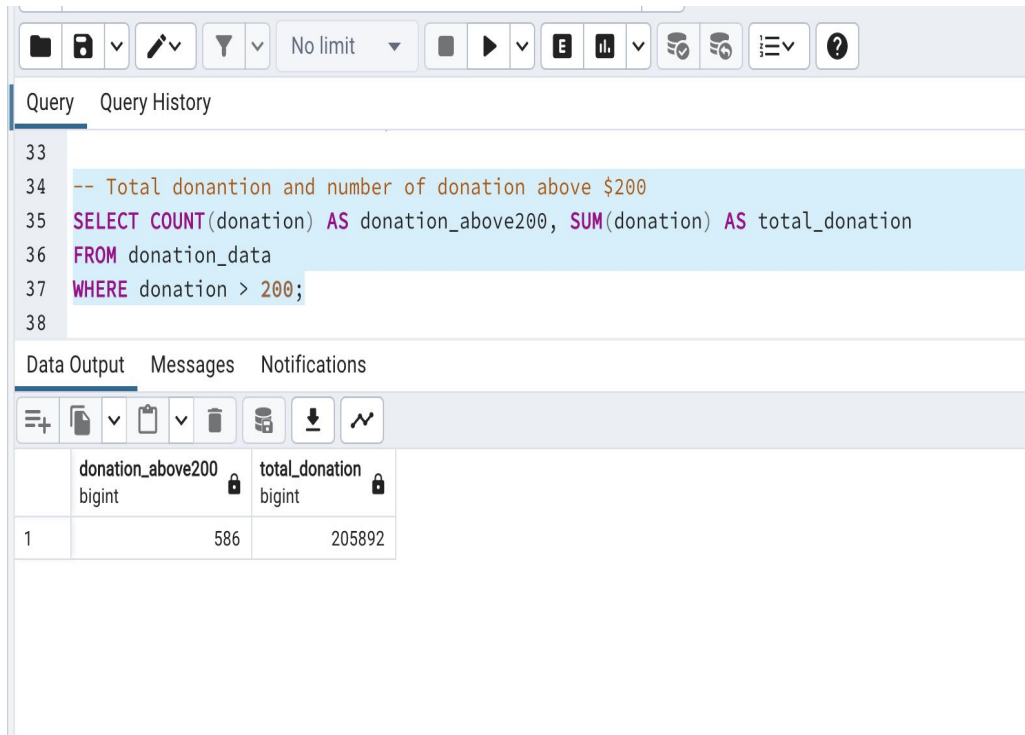
```
28 -- Total donation and number of donation by job field
29 SELECT job_field, COUNT(donation) AS count_of_donation, SUM(donation) AS total_donation
30 FROM donation_data
31 GROUP BY job_field
32 ORDER BY total_donation DESC;
```

	job_field character varying (50)	count_of_donation bigint	total_donation bigint
1	Human Resources	93	23060
2	Research and Development	84	22862
3	Product Management	90	22798
4	Business Development	94	22266
5	Engineering	93	21968
6	Training	84	21721
7	Accounting	80	20504
8	Services	80	19858
9	Support	79	19475
10	Sales	83	19009
11	Marketing	74	18255

Professionals in **HR, R&D, Product Management and Business Development** are the top donors during the period in review



## Total donation and number of donations above \$200



The screenshot shows a SQL query editor interface. At the top is a toolbar with icons for file operations, query execution, and settings. Below the toolbar are tabs for 'Query' and 'Query History'. The 'Query' tab is active, displaying a SQL query. The query is as follows:

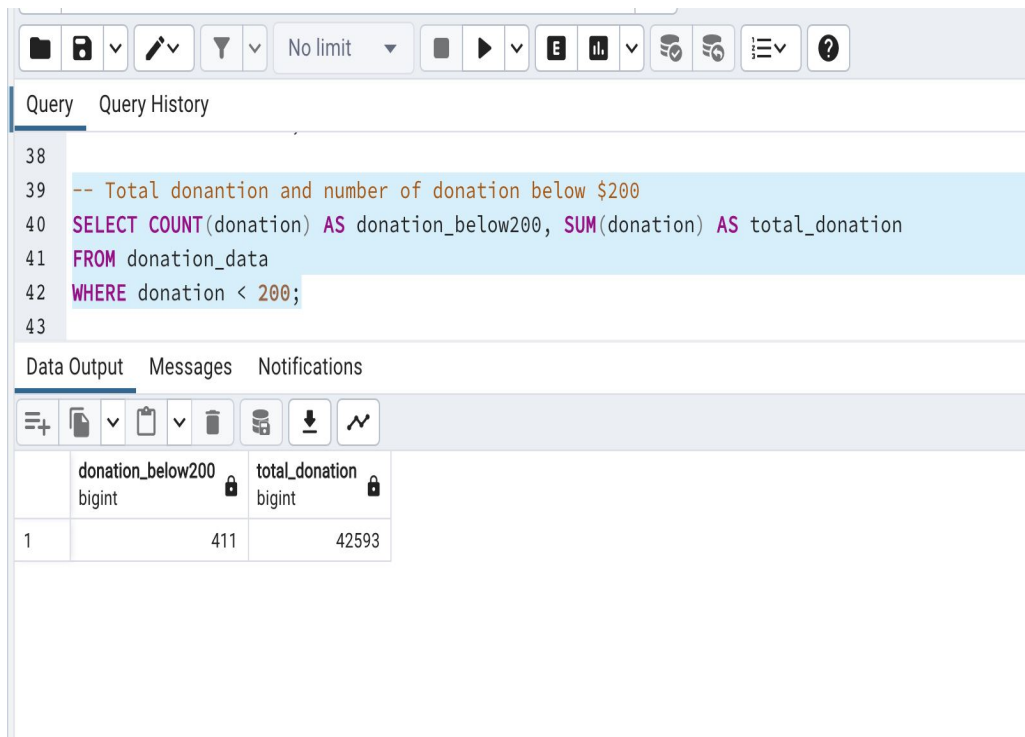
```
33
34 -- Total donation and number of donation above $200
35 SELECT COUNT(donation) AS donation_above200, SUM(donation) AS total_donation
36 FROM donation_data
37 WHERE donation > 200;
38
```

Below the query editor are tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with the results of the query. The table has two columns: 'donation\_above200' and 'total\_donation', both of type 'bigint'. The first row of data shows 586 for 'donation\_above200' and 205892 for 'total\_donation'.

	donation_above200 bigint	total_donation bigint
1	586	205892

The count of donations above  
**\$200 is 586**

## Total donation and number of donations below \$200



The screenshot shows a SQL query editor interface. At the top is a toolbar with icons for file operations, filters, execution, and help. Below the toolbar are tabs for 'Query' and 'Query History'. The 'Query' tab is active, displaying a SQL query. The query is as follows:

```
38
39 -- Total donation and number of donation below $200
40 SELECT COUNT(donation) AS donation_below200, SUM(donation) AS total_donation
41 FROM donation_data
42 WHERE donation < 200;
43
```

Below the query editor are tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, showing a table with the results of the query. The table has two columns: 'donation\_below200' and 'total\_donation', both of type 'bigint'. The first row of data shows 411 for 'donation\_below200' and 42593 for 'total\_donation'.

	donation_below200 bigint	total_donation bigint
1	411	42593

The count of donations below  
**\$200 is 411**

# Which top 10 states contributes the highest donations

```
44 -- Top 10 states with the highest donation
45 SELECT state, SUM(donation) AS total_donation
46 FROM donation_data
47 GROUP BY state
48 ORDER BY total_donation DESC
49 LIMIT 10;
```

Data Output Messages Notifications

	state character varying (50)	total_donation bigint
1	California	30264
2	Texas	24097
3	Florida	20562
4	New York	14759
5	Virginia	10750
6	Illinois	8674
7	District of Columbia	8376
8	Tennessee	8316
9	Georgia	8046
10	Ohio	6876

The highest donation came in from **California, Texas** and **Florida** followed by **New York** and **Virginia**

# Which top 10 states contributes the least donations

Query










Query History



```
51 -- Top 10 states with the least donation
52 SELECT state, SUM(donation) AS total_donation
53 FROM donation_data
54 GROUP BY state
55 ORDER BY total_donation ASC
56 LIMIT 10;
```

Data Output

Messages









Notifications



	state character varying (50) 	total_donation bigint 
1	Wyoming	232
2	Maine	258
3	South Dakota	401
4	North Dakota	651
5	Alaska	734
6	West Virginia	793
7	South Carolina	819
8	New Hampshire	841
9	Hawaii	875
10	Montana	1009

The least donations came in from  
**Wyoming, Maine and Dakota**  
**States**

# What are the top 10 cars driven by the highest donors

Query		Query History
<pre>58 -- Top 10 cars driven by the highest donors 59 SELECT car, SUM(donation) AS total_donation 60 FROM donation_data AS dd 61 JOIN donor_data AS dod 62 ON dd.id = dod.id 63 GROUP BY car 64 ORDER BY total_donation DESC 65 LIMIT 10;</pre>		
Data Output		Messages
		Notifications
<div>       </div>		
	car character varying (150) 🔒	total_donation bigint 🔒
1	Ford	22706
2	Chevrolet	19875
3	Toyota	14123
4	GMC	10145
5	Mitsubishi	10001
6	Dodge	9479
7	Pontiac	9331
8	Honda	9201
9	Volkswagen	8964
10	BMW	8608

Top on the list of cars used by donors is **Ford, Chevrolet, Toyota and GMC**

# Insights and Recommendation

My analysis shows that more than 70% of the total donation were made by people who donated above \$200. Most of which were yearly donors, one time donors and never donated before. There are mostly from California, Texas and also HR & Research and Development professionals.

To increase the donations and donors, I would recommend that Education for All initiates an annual donation event in the above locations and call on professionals in the listed occupations types (They probably have first-hand knowledge of the impact of quality education) to give just once and hopefully a lump sum of above \$200 would be donation to cover the whole year

**THANK YOU**