**EDUCATION FOR ALL**

Read the Business Problem below.

You’re a Data Analyst working for the charity, Education for All. You have been asked by the Head of Fundraising to present the data on donor insights and donation rates.  
  
Within the Fundraising team, your objectives are to:

* Increase the number of donors in your database
* Increase the donation frequency of your donors.
* Increase the value of donations in your database.

In two weeks, your team is having a fundraising strategy meeting for the following year, and you need to present insights from the donation data to inform your fundraising strategy and increase donations.

Use the datasets EFO\_Donation\_Data and EFO\_Donor\_Data below to answer the business problem. These are the same datasets provided during the previous modules and also attached below.

|  |  |
| --- | --- |
| **EFO\_Donation\_Data**  Contains the following data | **EFO\_Donor\_Data**  Contains the following data |
| **Id:** Donor ID **first\_name:**Donor first name **last\_name:** Donor last name **email:** Donor email address **gender:** Donor gender **job\_field:** Donor job field **donation:** Donation amount **state:** Donor state of residence (US) **shirt\_size**: = Donor t-shirt size | **Id:** Donor ID **donation\_frequency:** Frequency of donation **university:** Donor University attended **car:** Donor car make **second\_language:** Donor second language **favourite\_colour:** Donor favourite colour **movie\_genre:** Donor favourite movie genre |

**Queries to consider:**

JOIN

ORDER BY

WHERE

BETWEEN

AND

OR

SUM()

COUNT()

AVG()

GROUP BY

HAVING

**ANALYSIS QUESTIONS & SQL CODE**

1. What demographic characteristics (e.g., gender, job field, state) are most common among current donors, and are there untapped demographics that should be targeted?

SELECT gender,

job\_field,

state,

COUNT(\*) AS donor\_count,

SUM(donation) AS total\_donation

FROM Donation\_Data

GROUP BY gender,

job\_field,

state

ORDER BY total\_donation DESC,

donor\_count

;

1. How does the donor's university affiliation (university) correlate with their likelihood to contribute? Are there specific universities with higher donor representation?

SELECT university,

COUNT(\*) AS donor\_count,

AVG(CASE WHEN donation\_frequency = 'Once' THEN 1 ELSE 0 END) AS once\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Weekly' THEN 1 ELSE 0 END) AS weekly\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Monthly' THEN 1 ELSE 0 END) AS monthly\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Yearly' THEN 1 ELSE 0 END) AS yearly\_contributors\_percentage

FROM Donor\_Data2

GROUP BY university

ORDER BY donor\_count DESC

;

1. In which states (state) do we have the lowest donor representation, and what targeted strategies can be implemented to increase outreach in those regions?

SELECT state,

COUNT(\*) AS donor\_count,

SUM(donation) as donation

FROM Donation\_Data

GROUP BY state

ORDER BY donor\_count ASC,

donation ASC

LIMIT 25

;

1. Does the donor's second language (second language) influence their likelihood to donate, and how can language-specific communication strategies be optimized?

SELECT second\_language,

AVG(CASE WHEN donation\_frequency = 'Once' THEN 1 ELSE 0 END) AS once\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Weekly' THEN 1 ELSE 0 END) AS weekly\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Monthly' THEN 1 ELSE 0 END) AS monthly\_contributors\_percentage,

AVG(CASE WHEN donation\_frequency = 'Yearly' THEN 1 ELSE 0 END) AS yearly\_contributors\_percentage,

Sum(donation) as total\_donation

FROM Donor\_Data2

JOIN Donation\_Data

ON Donor\_Data2.id = Donation\_Data.id

GROUP BY second\_language

ORDER BY total\_donation DESC

;

1. What are the common patterns in donation frequency (donation frequency), and how do these patterns vary across different donor segments?

SELECT donation\_frequency,

COUNT(\*) AS donor\_count

FROM Donor\_Data2

GROUP BY donation\_frequency

ORDER BY donor\_count DESC

;

1. What characteristics (e.g., job field, state, car, university) are common among high-value donors, and how can this information be used to identify and target potential major contributors?

SELECT job\_field,

state,

car,

university,

AVG(donation) AS avg\_donation

FROM Donation\_Data

JOIN Donor\_Data2

ON Donation\_Data.id = Donor\_Data2.id

GROUP BY job\_field,

state,

car,

university

HAVING AVG(donation) >= 350

ORDER by avg\_donation DESC

;

1. What trends are observed in major gifts, and are there specific factors (e.g., university affiliation, car, job field) that consistently contribute to larger donations?

SELECT university,

job\_field,

AVG(donation) AS avg\_donation,

FROM Donation\_Data

JOIN Donor\_Data2

ON Donation\_Data.id = Donor\_Data2.id

WHERE donation >= 400

GROUP BY university,

job\_field

ORDER BY avg\_donation ASC

;

1. Which donor qualify for our incentives as the top contributors?

SELECT id,

first\_name,

last\_name,

email,

donation

FROM Donation\_Data

WHERE donation >= 400

ORDER BY donation DESC

;