MARKETING ANALYTICS

Assignment #1

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Overview

The first assignment will give you a lot of freedom in the way you can execute it. You basically need to answer the question "if I were a manager, what would I need to know about that database?" Although you could use R for that assignment (especially for its graphic libraries), you could easily not, and simply use MySQL queries only, plotting the data in say, Excel.

There are some basic questions you could, and probably should, ask:

- How much money is collected every year?
- How much money is collected through classic donations (ActType='DO') and automatic deductions (ActType='PA')?
- How many contacts are there in the database? How many donors?
- How many donors have been active each and every year?
- Is the average donation amount increasing or decreasing? How much is it?
- How many "new" donors were acquired every year?
- Etc.

As a tip, the first question could easily be answered with the following request:

```
SELECT YEAR(ActDate), SUM(Amount)
FROM acts
GROUP BY 1 ORDER BY 1;
```

The list of questions you could ask is pretty much endless, so you need to focus and have a plan. Act as a business analyst and ask the following questions:

- What figures/charts/tables will best tell the story of how the charity has evolved over the last few years?
- Does it make sense from a business point of view to report what I'm reporting here? For instance, reporting the "average donation amount" without making a distinction between classic donations and automatic deductions would be nonsensical, because you'd compare apples and oranges. Sure, you'd have a nice chart, but it wouldn't give you any meaningful information.
- If you were the fundraising manager of this charity, what would you like to know? What would you need to know to improve your performance or identify your current weaknesses? What should you be able to report to the board to explain (or brag about) your performance?

Deliverable

In the report (a PowerPoint presentation), I'd like you to report:

- At least 8 charts and/or tables (that's the bare minimum).
- In the appendix or in separate text files, the code and/or SQL queries you used to get the data you have reported.
- Build the presentation as if you were a consultant or the fundraising manager making a presentation to a board. Be clear, concise, impactful.

Tips & tricks

As a reminder, there are three cardinal sins you should **avoid at all cost**, as discussed in class:

- Do not mix and match automatic deductions and one-off donations. They are conceptually distinct. For instance, computing an "average donation amount" across automatic deductions and one-off donations does not make any sense.
- Remember that the last year of data is not complete. Do not create charts that would lead to misleading conclusions (we've discussed that extensively in class).
- Before going to very complex tables and charts, cover the basics. It doesn't matter that men in Calvados are more generous than women in Paris if, in your report, you forget to report basic facts such as growth, generosity, etc.

Please make sure you refer to the document "Database description," which contains a host of useful details.

Logistics

Deadline

The deadline is on Sunday at midnight. Please check the slide deck of session 1 for the exact date.

Format

Make sure your PowerPoint presentation filename includes your group number (e.g., "MA03", "MA05", "MA12", etc.).

Do NOT submit a link to download the presentation, unless it's too voluminous. It's just extra work for me, and usually leads to issues (e.g., permission access, etc.)

Submission

Submit by email to:

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