CS 5200 - Database Management Systems
Project Proposal

Effective Giving Community

Group Name:

Group Members

Introduction

'Effective Giving Community' (EGC) is a non-profit organization that bridges gaps between donors and charities in need of funds such that they are utilized in the most effective ways. It does so by carefully screening and evaluating charities working to address global issues like food insecurity, eradication of polio etc. and allowing users/members to fund their choice of charities in a transparent, sustainable manner. Users are also provided with global and local statistics on income inequality for informative purposes and to give perspective.

Database Description

The database contains information on the most effective charities working on problems in the areas that are especially promising in how much good can be done by work in that area. A charity can be a community, a research charity, or a program delivery charity that directly delivers a specific intervention. Every charity has a unique id, its name, website, description, country of origin, and a direct donation link.

There are many high-impact causes that charities work in. Each cause area has one to many problems associated with it. Each problem has one to many unique interventions that address this problem. There is an associated cost for each intervention, and for some of the interventions, there is a QALY (Quality-adjusted life year) parameter measured. QALY is used to estimate a potential impact of an intervention.

Every charity works in one single cause area, where it runs one to many projects, each of which implements one single intervention. Each project costs a specific sum of money, has a year, where it was started, and status - completed or ongoing.

The effectiveness of each charity in the database is assessed each year by the evaluating organization. There are several evaluators making the assessment, but only one of them makes the evaluation of the same charity each year. The evaluation provides a rank for the charity,

based on how effective the charity is in its work compared to other charities in its cause area. The database stores data on the evaluating organization - its name, unique id, and website.

A user can become a member of the community, after which they'll be able to make donations in a specific charity's name. Every donation has an amount a date when it was made. There are many charities a member can donate to.

The database tracks member's name, their average annual income, as reported by the user, a source (an article, a website, or another related community) the new member came from, and their country of residence.

For a member to better understand how their income compares on a global level (basically, how rich they are globally), each member receives an income ranking.

User Interaction

The application lets members choose a *cause*, for which they also have the option to select the *intervention* (solution methodology) they believe in most. This leads them to the *charities* most committed to the cause, ranked by their effectiveness. They have the option to donate to as many charities as they please, and to view their past/ongoing works in combating the respective problems. Members can also view the donations they made in the past and the charities they supported.

An additional functionality is that of viewing *performance statistics*, both personal and otherwise, such as:

- Number of lives I helped saving (based on past donations)
- Amount donated so far, and charities funded
- How rich I am - A relative global comparison

Why Does This Interest Us?

There are plenty of charity organizations working globally to combat the same problems, but it is difficult to compare their performances to then choose the most effective ones, from a donor's perspective. 'Giving What We Can' is an NGO that works towards sustainable, efficient and effective distribution of donations, to maximize the impact, and their methodology inspired us to replicate their user interface at a rudimentary level. Particularly interesting is their use of

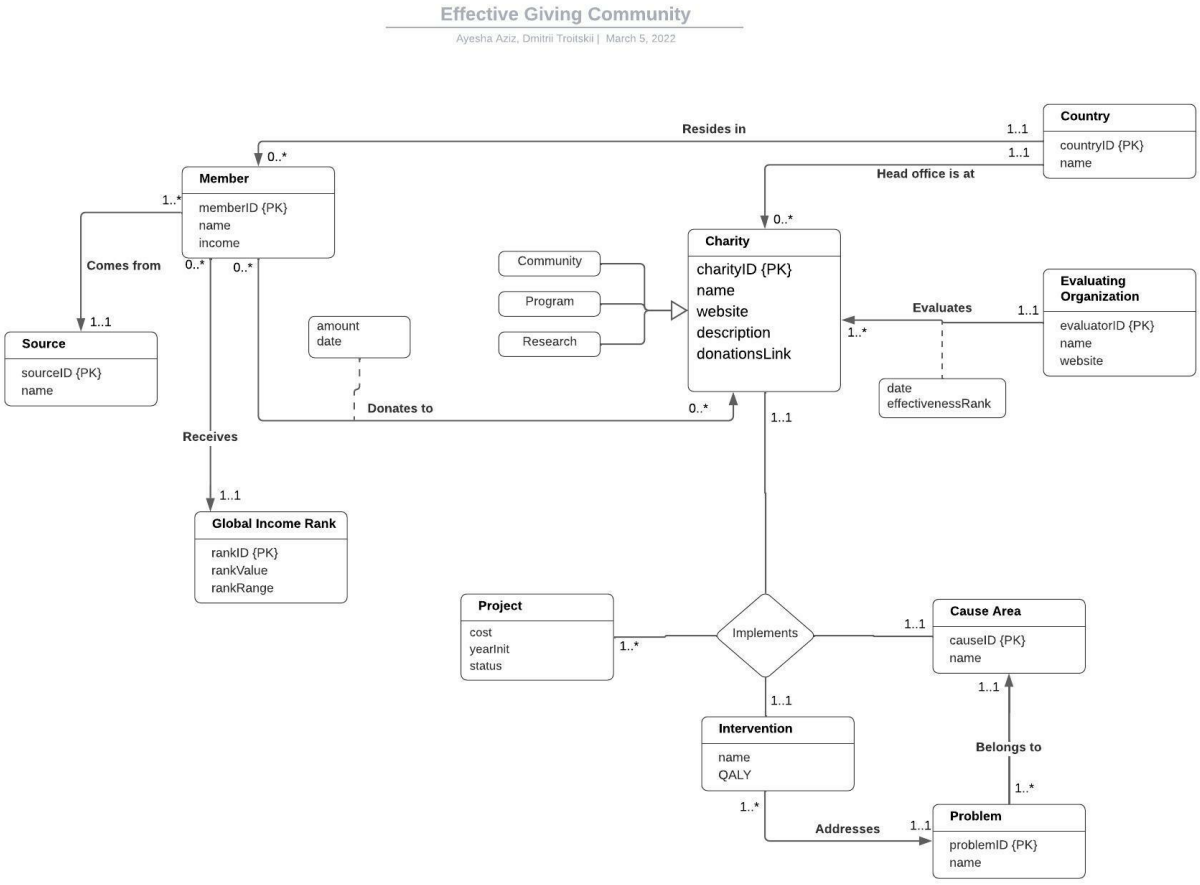
statistics and comparative figures (e.g. how rich one is relative to an average human being) in drawing one's attention and giving meaning to numbers.

Database Language

Software: MySQL Workbench
Language:

- Java on the back-end, Java on the frontend with CLI output
- SQL to manage the database

UML Diagram



UML Activity Design