

OOAD FALL 2018 Project Description

Donations Management System

There are a number of small non-profit / community-based organizations involved in various community welfare projects. One of the principal activities they do as part of their projects is to raise funds to help the needy. Effective tracking of funds (inflows and outflows), need assessment of the subjects, transparency in funds disbursement, donor management – all are important concerns that drive the success of the project. A well-designed software can play a crucial role in this regard. We need to create such a software that shall be customizable according to the needs particular to an organization or project; and is yet effective in addressing the principal concerns for a non-profit / community-based organization.

A very generic and high-level overview of how these organizations work can be summarized in the following lines:

A bunch of volunteers motivated by the pleasure of bringing some positive change in the society get together to form an organization. They identify projects and work out a team responsible for each. Team identifies project goals and objectives, chalk-out a plan and then sets out to meet the goals. In the process, there are two principal activities: funds collection and funds disbursement.

Funds are collected from the donors. This requires, at the core: managing a list of donors, keeping track of funds donated by each donor and also keeping track of funds spent for each donor. For the purpose of transparency and donor confidence, each donor can be provided with detailed information of where his funds were utilized, who were the beneficiaries, how to reach them, etc. At times, donors make pledges to be followed by actual release of funds. Tracking pledges and following up on them is also important.

Funds are disbursed to the needy (subjects / beneficiaries). This requires a thorough need assessment so that the right amount of funds are disbursed taking into account total funds available and the need of other subjects as well.

A number of approaches can be employed for the purpose – a common approach is to conduct interview of the subject. There may be a number of interviews by multiple assessors. Each assessor may use same or different set of questions. When multiple assessors interview, there is a need to reconcile their findings and arrive at a consensus and finally allocate the funds to the subject.

Funding itself can have different modes e.g. loans, gifts, etc. Funding history for all the beneficiaries need to be maintained for the purpose of record and also for future allocations if the same subject apply again.

Other important functions include volunteer management: identifying volunteers, tracking their availability, scheduling volunteer work-time, etc.

Also, funds are not the only donation items. At times donors also donate in form of goods as per the needs of the project.

High-level Requirements

Considering the overview of important function areas in a non-profit / community-based organization, the system shall support the following requirements.

1. System shall support configuring an Organization
2. Organization shall be able to define and initiate projects
3. System shall maintain an organization-wide donors-list and track which projects they are donating to.
4. System shall keep track of project team.
5. System shall track the funds donated by each donor for a particular project
6. System shall track pledges by donors
7. System shall provide a mechanism for need assessment of subjects
8. System shall track and keep history of all the funds allocations
9. Donors shall be able to track where their funds are being spent
10. System shall provide basic volunteer management features

Project Tasks

- Work out detailed use-cases for donations management system
- Create an object-oriented analysis model
- Create an object-oriented design model
- Implement the system using C++/Java language