C-S 741 Software Engineering

Fall 2022

Project Description

Software for a Non-profit Organization's Bookkeeping

Objective:

To develop a software system for a non-profit organization that is used to do the bookkeeping for their participants. It can be a standalone application, a web application, or a mobile app.

Description of the problem:

A non-profit organization needs to keep a record of the participants in relates to various events and programs. The participants include the donor, the volunteer and the others. The following are the requirements and assumptions for this problem:

- The non-profit organization operates in the way of event driven throughout the year.
- There are four types of users for this system – *Administrator*, *Donor*, *Volunteer* and *Other*. First three types of users must have an account to login into the system.
- The others can view the various events and programs hosted in this organization and can choose to create an account to become a donor or volunteer.
- An administrator can create and maintain (modify and/or delete) the accounts for everybody in the system including other administrators. All administrators will have equal privileges.
- The administer will be able to do some simple data analysis and reports. (Example: the total amount of a donor's contribution to the organization in year 2021)
- The donor will be able to make restricted donation to a certain event/program or unrestricted donation. The donor can also simply attend an event without make any contribution.
- The volunteer can register to help an event at certain time slot or help program activities.
- An event can be associated with zero, one or more programs.

The following minimal set of functionalities must be implemented:
- Provisions to add, search, remove, modify, and view different types of users except "the others".
- Provisions to add, search, remove, modify, and view an event or program.

A graphical user interface must be developed for this software. The interface must consist of multiple screens for different tasks. For example, there should be a

welcome screen to start with which displays the various functionalities of the software. If one chooses to login or register to the system, there must be a separate window/screen that displays the requested information. The number of screens, the screen layout, the type of information to be displayed etc. all depend on your design.

You must implement all the functionalities mentioned above. You are required to associate a database with your product.

Project Deliverables:

During the life cycle of this project, the following documents must be delivered.

Deliverable	Description	Mark	Due Date
Document 1	Product Overview and Project Plan	10	Sept. 16, 2022 (Friday)
Document 2	Functional Requirements/Use Case Models /User Stories, including Assumptions	15	Sept. 30, 2022 (Friday)
DEMO	**First Demo**	**10**	**Oct. 19, 2022 (Wednesday)**
Document 3	Architectural Design (UML Diagrams)	10	Oct. 28, 2022 (Friday)
DEMO	**Second Demo**	15	**Nov. 9, 2022 (Wednesday)**
Document 4	Updated Documents 2 & 3	15	Nov. 18, 2022 (Friday)
DEMO	**Final Project Demo**	**15**	**Dec. 7, 2022 (Wednesday)**
Document 5	Well-commented source code	5	Dec. 14, 2022 (Wednesday)
Document 6	User manual or online help system	5	Dec. 14, 2022 (Wednesday)