Virtual Organization Expert System [VOES]

Collaborates with Voluntary Organization Management System

A project in

CSC 2210: Object Oriented Programming 2 [N]

Project Summary Report

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Introduction

Clubs and club activities are an essential part of a student's life. It is not only students but people of different ages and profession who involve themselves in clubs with different purposes. Although differing in functionality and purpose, all clubs have their member list, activity details, event expense et cetera stored in paper or in some sort of digital form. Virtual Organization Expert System or VOES is basically a computer-based software built to keep track of overall activities of a club. The main purpose of this software is to ease the complexity of storing necessary information by digitally storing them in a database system. The software will be able to keep records of individual member information, upcoming or passed club events and activities, regular update/notice, application system, financial records and many more.

User Category

As of for now, the users are divided into four categories. They are:

- President
- Executives
- Volunteers (or general members)
- System Administrators (Developers)

Functions/features of the software

Executive's Section

Adding/Removing volunteers

An executive member of the club can add new volunteers after inserting necessary credentials. While doing so, the ID of the executive member will be registered as the person entering new volunteer in the database. An executive member also holds the authority to dismiss any volunteer from database at any given time.

Adding and modifying Event information

An executive member can create new events and modify information of the old ones. An executive member can also modify/ update financial information of a specific event. In that case, the ID of the executive member will be recorded.

Event Report

An executive can print or export the overall information of a specific event in the Event Report section. It is notable that the event report document is available in excel, word and pdf format.

Donation

An executive can insert internal and external donations for his/her club. In case of internal donations which can be made by club personnel only, the ID of donor will be registered automatically.

Notice

Here an executive member can post new notices as well as update the old ones. Notices can be seen by all categories of users of this software.

Financial

The Financial part here works as the donation log for the club. Records of all external and internal donations are kept here and only executive members can access this data.

Applications

The executive members can see any application sent my volunteers. The applications then will be processed and will be pending approval.

Available Volunteers

An executive can schedule a time and see how many volunteers will be available for that certain time period. This helps select volunteers to perform a specific task.

President's Section

It must be noted that the President can perform all the operations of an Executive user with additional authority over all Executive users. The President, like any Executive user, can create, modify and remove any information available in the VOES database of the club.

The additional operation(s) for the President is given below:

Adding/Removing Executives

The President of the club can add new executive user after inserting necessary credentials. The President also holds the authority to dismiss any executive user from database at any given time.

Volunteer's Section

Events

Volunteers will be able to view any ongoing or recent event information by clicking on the event names. Details of older events will be available in Archive section.

Notice

Volunteers will be able to see notices posted by executives or the President in this section.

Application

Volunteers will be able to send any formally written application to executive member's panel via this section.

Free Time

The purpose of this section is to keep track of availability of a certain volunteer member. The members are supposed to be instructed on the usage of this particular section by their respective executives.

As of for now, a volunteer can only modify his/her personal information (ex-name, email, mobile number). Most information presented to a volunteer will be in read-only mode.

System Administrator's Section

The System Administrators, in this case, are the developers of this system. They are responsible for updating the system as necessary as well as fixing any reported bugs in the system. Their most basic function is to add a President to the system as executives and volunteers aren't allowed to perform this operation. The System Administrators has the authority to remove any category of users in case of any unwanted inconvenience. In case of emergency, the Executives and the President are instructed to contact the System Administrators and seek assistance as necessary

Programming Language Used

- C Sharp

Tools Used

To develop this project, the following tools were used:

- Microsoft Visual Studio 2013 Community Edition

- Microsoft SQL Server 2014 Express

- Bunifu Framework 1.11.5.1
- Microsoft Report Viewer

Impact of this Project

Club activities nowadays are not limited within the campus premise anymore. New clubs are created every day and their functionalities are expanding as we speak. Even in 21st century, most clubs in our country use notebooks or record books to manually store data. The purpose of this project is to assist clubs in storing information in a digital manner. Using this system, club members can easily enter, modify, remove and record any necessary information required to operate efficiently. The Virtual Organization Expert System is aimed to ease the complications of storing data in traditional ways thus saving precious time and introducing the clubs to newer possibilities.

Drawbacks and Possible Future Improvements

Daily Report
The President will have a full-scale daily report of executive and volunteer activities.

Notification
The President will be notified via mail or by other mediums when an External Donation is recorded.

Performance Rating
The executive members can rate a volunteer based on their dedication and overall performance. The President can do the same to all executives but in a monthly basis.

Unwanted Bugs
Although tested, the software may contain unwanted exception errors. The System Administrators will handle such exceptions if they arrive while performing regular task.