SXC-CMS: ST. XAVIER'S COLLEGE CREDITS MANAGEMENT SYSTEM

INTRODUCTION

In St. Xavier's College, it is compulsory for students to participate in extra curricular activities. The participation in such extra curricular activities is measured through the means of 'credits'. A credit is awarded for every thirty hours of non-academic work. It may be in the from of events organised by the different societies, the departments, or representing the college. A student is expected to have at least 30hrs or 6 credits to be awarded the degree at the end of the duration of academic programme he/she is enrolled for.

Credits are awarded in two ways

- In hours: Sometimes credits are awarded in hours depending on the amount of time spent in doing an activity.
- In whole credits: Sometimes credits are offered as a whole depending on the overall amount of work done in an activity. Here, we will call such credits as 'atomic' credits.

The primary objective of this web application is to manage online credits management system which currently is done using paper-based forms.

HOW IT FUNCTIONS

The students' perspective: When a student is in first year, he/she has to get registered in the system for once only. The class representative of the relevant department is given a set of access-codes using which students may register themselves. (If by some unforeseen event some access codes get lost/misplaced, the CR is to notify the system administrator for a new set of codes while the old set will be deactivated to prevent malicious registration). After the registration is done for the first time, the account belongs to the student, and it is upto the student to enroll for events posted by the various societies/departments.

The departments' perspective: Initially, the system administrator creates the existing departments in the college and hands over the login details to the relative departments. Each department has an account which can be used by the department to create/edit/open/close events and accredit students. After an event s created and declared open for registration by students, the students who register will be visible to the department administrator. The administrator, on evaluating the credibility of the student, may/may not accredit him/her with the stipulated amount of credits.

WHAT MAKES THIS APPLICATION USEFUL?

In St. Xavier's College doing non-academic work is compulsory for every student which is measured in the form of credits. In total, a student is expected to have 180 hours of non-academic credits. Students have to take a credit-sheet from the office, fill it up and get it signed by the respective teacher-in-charge, which then becomes an evidence of the amount of non-academic work done. The reason the email overtook traditional snail mail is because of its speed, efficiency and organised file mail storage. This project will prove to be useful for the very same reasons. A computer based organized central storage of credits is not only going to make the credit-system more efficient but will also offer an option of making the credit-system more transparent and help students be more aware of the credit system. We now look at a few reasons that make the current system less efficient than this computer-based credit management system.

The current system has the following disadvantages:

1. Each time a student needs to get the credits certified by the department, he/she has to go to the office, get the form, go to the department concerned, submit the form, get it signed by the teacher-in-charge, take it back and then submit all the credit forms to the Vice Principal at the end of the course (till which time the credit forms have to be kept safely at the responsibility of the student as it is the only evidence of his/her non-academic work). This is a lengthy process and puts load on the office, the students as well as the departments.
2. Credits cannot be awarded until the credit sheets have been submitted. In other words, if there is a delay in the submission of the credit sheets to the department concerned, the credits may be delayed and it may cause even more burden on the department concerned to verify and award credits for an event that occurred in the past. If a department wants to award credits, it has to wait till the forms are submitted.
3. There is a risk of credit sheets being misplaced and lost when given to a department, as each department has a lot of paperwork to take care of.
4. Paper based forms/applications have their usual disadvantages like shortage of forms, wastage of paper, improper use of forms (i.e. when a form was taken but was neither filled up nor submitted).
5. Lack of transparency: When a student gets a credit, no one other than the authorities and the student concerned need be aware. But it may be so that a student wants to know (the right to information) the credits another student has been awarded. He/she may not have access to other students' credit-counts.

This project would solve the above problems that are associated with the current system. Not only will this project reduce unorganized paperwork but also increase the efficiency of the credit-system in real-time (no more waiting in line for getting credit sheets signed-credits will be updated as soon as they are submitted to the administrator). It will also help reduce workload on the departments and hence allow credits to be allocated as and when events come up instead of saving it all up for third year. Moreover when a student accesses the website, there will be notifications on the home page informing everyone which events are coming up and if there is any credit awarded for participation.

The system has two entities:

- Users: There are three types of users, namely students/CRs, department administrators, and a system administrator. A department administrator is in charge of creating and editing events in system as well as accredit students on the basis of the students' involvement. The student may register for an event and only then will the department administrator have the option of accrediting him/her.
- Events: An event is a means of providing credits to students on the basis of the students' involvement. In this system, the department administrators as well as the system administrator can create, edit, post events for which credits will be offered. Once a student registers, the department administrators may accredit the student.

CONCEPTS USED IN THE SYSTEM

1. Blocks: Each class is identified by a tuple {Department, Year, Room Number}. It is so done to uniquely identify a class of students when the student is first making an account in the system. It is seen that this tuple is unique for each year of each department. We can not just use the {Department, Year} pair because some departments have multiple classrooms for each year[1].
2. Codes: When a student is first registered into the system, he/she will have to take a code given to the CR of the class by the administrator. This code will be a one-time registration key without which the student is not allowed to be registered. The CR gets the codes from the system administrator by applying to him and a record is kept as to which sets of code is given to which CR.
3. Roles: Each event is accompanied with a set of (at least one) roles. This means that a student may register for an event in any of the defined roles. For example an event may have participants, volunteers and audience. Depending on what the type of involvement, the credits rewarded are different. A participant gets awarded more credits than the audience, say. The department administrator, at the time of the creation of the event may define a set of roles visible to the students for registration. There may be a few roles that will be invisible to the students but will be awarded depending on some criteria. For example, a student may be a winner in a race. Here the winner role is hidden from the student while registering.

[1] It is seen that for the BCom department, the room number along with the department and year would define a class.

TECHNOLOGIES USED

- HTML + CSS + Javascript
- PHP + MySQL

ABOUT THE DEVELOPERS

The project was designed and developed by the following Computer Science honours (CMSA) students of third year (Sem 5):

	Roll no.	Email	Phone No.
Anuvabh Dutt	543	anuvabhdutt@gmail.com	9051514967
Mourjo Sen	561	sen.mourjo@gmail.com	9830747541