**A logo for a university

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**STUDENT CREDIT SYSTEM:CANTEEN C CASH CASH**

**Presented to the**

**School of Electrical, Electronics, and Computer Engineering**

**of Mapúa University**

**Muralla Street, Intramuros, Manila 1002 Philippines**

**In Partial Fulfillment**

**of the Requirements for the Course**

**CPE104L Data Structures and Algorithms**

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**EVALUATION SHEET**

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| --- | --- | --- | --- | --- | --- |
|  | **Presentation Quality (20%)** | **Data Structures (30%)** | **Documentation (20%)** | **Teamwork (30%)** | **Total** |
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**Project Overview**

The project aims to create a student credit system that essentially acts as a transaction application in canteen stalls only available for use within any Mapuan Campuses.

Purpose

One of the many problems Mapuan’s face within the campuses are the excruciating wait time and queues across majority of the transaction facilities found across the campus like canteens, treasury, registrars. This project aims to alleviate one of these ongoing problems by creating a student credit system wherein they can both place and cancel orders, transactions without the burden of queue time and physical cash transactions.

Objectives

As technology advances, people slowly incorporate the use of technology in order to make things easier. When it comes to transactions, such as paying bills, creating orders, or sending and receiving money, back then, people often used cash to complete their transactions. This is somewhat inconvenient since it is not always the case that students can take huge amounts of money with them. The following are the aims of this project:

* Showcase a cashless system within the campuses of Mapua, befitting the name of being an institute of technology.
* Promote an efficient and convenient means of campus transactions without using cash.
* Promote digital literacy and financial inclusion to every student on campus, even those who do not have bank accounts.

Innovation

This project aims to showcase unique elements that differentiate it to other credit system programs. First off, this project is similar to the idea of Beep card, a smart card that can be used to travel with trains without using cash as a means of payment. It promotes the use of a cashless system when it comes to completing transactions within the university and other campuses. Lastly, this project aims to encourage the students to use the credit system by giving them benefits. The usage of the application itself will give the users certain discounts on their transactions. Also, student achievers, such as dean’s or president’s lister, competition awardees, and other event awardees, will be given credits for their achievements.

**Conceptual Framework**

For the **CRUD** operation of the system:

**Create** -The program will prompt an account creation panel wherein the user can input credentials and other information. Once an account has been created, users can issue orders for the different stores that are supported by the credit system. Also, the student can cash in by converting currency to credit used in the same system.

**Read** -The program can open and read the credentials of the created accounts and show the signed in user the remaining account credit balance, transaction history, bills, and the user profile.

**Update** -The users can update their account information, see their purchase updates whether they have already completed their orders, update credits (Cash conversion), and view their transactions.

**Delete** -The users can cancel orders. This is helpful during the process of completing a transaction, especially when the student has a sudden change of mind and wants to cancel the transaction and choose a different service.

In this student credit system, there are inputs that the students can set to initiate a transaction, be it placing an order, or inputting the amount of cash to convert into credits for their account. Afterwards, the system will process these inputs, creating outputs in order for the user to track and manage their transactions.

Input – the inputs are the following:

* Account information (needed information in order for the user to create an account and use the system.)
* Order Bills
* Quantity of Cash (amount of credits the user wants to add to or send from their account)

Process

* Creation of User account (Declaration of All User credential inputs into one User to be used in the system)
* User Log in
* Addition of Order transactions from the different stores
* Conversions of cash to credit to be used in canteenl transactions
* Creation of Payment Log / Transaction History from each transaction site.
* Confirmation of Order and or Payment (The user may cancel the order or payment)
* Transaction History (transactions appends it into an out file to be displayed in txt or console depending on user choice)

Output

* STUDENT CREDIT SYSTEM Contents/Menu
* Transaction History Details with date and time
* View account, check remaining balance of that account.
* Error Messages (Insufficient Balances, Invalid Selections, etc.)

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Description automatically generated**Flowchart**

A diagram of a student

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**FINAL PROJECT FEATURES**

The project must be able to exhibit the following features:

|  |
| --- |
| 1. The system can do C.R.U.D. The user can top-up to their accounts. |
| 2. There will be multiple user roles in the system such as student, scholar, athlete. At least 5 users must be pre-made in the system with each varying privileges and discounts. |
| 3. There will be a transaction history per user to be displayed in the account. |
| 4. The system is able to simulate 3 separate stalls with multiple items and prices each. |
| 5. The system is implemented in a console-based output with a menu-style display |

The undersigned hereby attests that all these features will be showcased during the final submission of the project. Failure to do so will merit the project to not be accepted.

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Date Signed: Noted by Professor