College of Computer Study Student Council and Organization Online Membership Payment System

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Introduction

At **Gordon College**, the **College of Computer Study (CCS)** plays a vital role in shaping future IT professionals by offering programs such as **Bachelor of Science in Information Technology (BSIT), Bachelor of Science in Entertainment and Multimedia Computing (BSEMC), and Bachelor of Science in Computer Science (BSCS)**. Alongside academic excellence, student councils and organizations such as **ELITES, SPECS, and IMAGES** provide platforms for leadership, creativity, and collaboration. However, one challenge faced by these organizations is the traditional manual collection of membership fees, which often results in inefficiencies like delayed payments, inaccurate records, and difficulties in maintaining transparency. These issues not only hinder financial management but also consume valuable time that could otherwise be used for student-focused activities.

To address these challenges, the **College of Computer Study Student Council and Organization Online Membership Payment System** is introduced as a digital solution tailored for CCS students and organizations. This system provides a secure and user-friendly platform where students from BSIT, BSEMC, and BSCS programs can conveniently pay their membership dues online. At the same time, it assists councils and organizations such as ELITES, SPECS, and IMAGES by automating record-keeping, enabling real-time tracking of transactions, and generating financial reports with ease. By minimizing manual errors and reducing administrative workload, the system fosters efficiency, transparency, and accountability in financial management across CCS organizations.

Beyond efficiency, the system highlights Gordon College's commitment to innovation and digital transformation. By integrating technology into organizational operations, the project ensures that CCS student services remain future-ready, sustainable, and accessible. Ultimately, the system benefits not only the leaders of Elites, Specs, and Images but also the entire student body of BSIT, BSEMC, and BSCS, as it builds trust, enhances convenience, and allows organizations to focus more on delivering meaningful programs and activities that enrich student life within the College of Computer Study.

Short Literature Review

The shift toward digital and cashless payment systems has transformed how organizations manage financial transactions. In the educational sector, e-payment platforms have been shown to reduce manual workload, improve transparency, and provide students with more convenient options.

For example, **Discover Global Network** discovered how institutions are embracing cashless systems to meet students expectations in today's digital era. A 2023 report highlights that **90% of college students express interest in using mobile payments for campus services**, showing the rising demand for streamlined financial systems.

In addition, A 2023 study of university students in Ghaziabad, India, explores adoption patterns of digital payment apps. It reveals that **convenience, time-saving, and the cashless nature** of payments are key drivers, while **trust, technical issues, and risk perceptions remain barriers**. Research involving students from several universities in the UAE found that **trust and perceived ease of use significantly influence the intention to use e-payment systems**, while perceived usefulness was surprisingly not a significant factor.

A study among postgraduate students in Indonesia (2022) determined that **perceived trust is a primary driver of continued e-wallet usage**, acting also as a mediator for perceived security. A study among postgraduate students in Indonesia (2022) determined that **perceived trust is a primary driver of continued e-wallet usage**, acting also as a mediator for perceived security.

Statement of The Problem

The manual collection of membership fees in the College of Computer Study (CCS) organizations—specifically ELITES, SPECS, and IMAGES—continues to create challenges in terms of efficiency, convenience, and transparency. Students are required to physically pay their dues, which often results in long queues, delays, and inconvenience. At the same time, organization officers and treasurers face difficulties in handling cash, maintaining accurate records, and ensuring accountability in financial management. These issues not only increase the risk of human error and inefficiency but also limit the organizations' ability to devote more time and resources to student-centered programs and activities.

To address these challenges, the study proposes the development of a **College of Computer Study Student Council and Organization Online Membership Payment System**. The **main problem** is stated as follows:

- How can an online membership payment system improve the efficiency, accuracy, and transparency of membership fee collection for CCS student organizations, specifically ELITES, SPECS, and IMAGES?

From this main problem, the following **specific problems** are identified:

1. How can the system **eliminate the need for manual cash handling** in ELITES, SPECS, and IMAGES to minimize risks and human errors in financial management?
2. How can the system **reduce waiting times** by eliminating physical queuing during membership fee collection across CCS organizations?
3. How can the system **provide a more convenient and accessible payment process** for members of ELITES, SPECS, and IMAGES through digital transactions?
4. How can the system **enhance user experience** by integrating features such as transaction history, and dashboards for both students and organization officers?

Goals

The goals of this project are as follows:

- **Eliminate manual cash handling** in order to minimize risks of loss, errors, and delays in payment processing.

- **Reduce waiting times** and the need for physical queuing by providing a convenient online platform for students.

- **Provide a secure and user-friendly payment system** for CCS student councils and organizations such as **Elites, Specs, and Images**, ensuring accessibility for all students in programs like **BSIT, BSEMC, and BSCS**.

- **Automate record-keeping and financial tracking**, enabling organization leaders to monitor payments in real time and generate accurate financial reports.

- **Promote transparency and accountability** in the management of organizational funds to strengthen trust between members and student leaders.

- **Support Gordon College's digital transformation efforts** by integrating technology into student services, making processes more modern, efficient, and future-ready.

Timeline

- **Weeks 1–2: Research and Requirement Gathering**
  Conduct research on existing online payment platforms, study user needs from CCS students (BSIT, BSEMC, BSCS), and gather requirements from organizations (Elites, Specs, Images). Define legal and security considerations for handling digital payments.

- **Weeks 3–4: System Architecture and Design**
  Develop the system architecture including frontend, backend, and database structure. Create UI/UX wireframes, ERD diagrams, and flowcharts to visualize the payment process, dashboards, and financial reporting modules.

- **Weeks 5–6: Development of User Registration & Payment Features**
  Implement secure authentication (student and admin roles), profile management, and digital payment integration (GCash/Paymongo). Develop modules for recording membership payments and generating receipts.

- **Weeks 7–8: Dashboard, Reporting, and Transaction History**
  Create student dashboards to view payment history and receipts. Implement admin dashboards for financial tracking, report generation, and member management. Ensure role-based access and secure data handling.

- **Weeks 9–10: Testing and Debugging**
  Conduct unit testing and system testing to ensure all features work as intended. Perform user acceptance testing with representatives from Elites, Specs, Images, and students of BSIT, BSEMC, and BSCS. Debug errors and optimize performance.

- **Week 11: Deployment and User Orientation**
  Deploy the system for actual use by CCS organizations and students. Provide orientation and training to student leaders and advisers on how to use the platform effectively.

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