St. Dominic College of Asia HEI Portal

Shaira Mari V. Relos, Gerhard P. Dilla, Prof. Alvin Jason A. Virata
School of Business and Computer Studies
smvrelos@gmail.com, gerarddilla@gmail.com, ajavirata.7772011@gmail.com

Abstract – *The proponents decided to develop this system so that SDCA students, faculty, moderators, and administrators can efficiently access, manage, and update student data in the SDCA system. The SDCA HEI Portal can be accessed by students, faculty, moderators, coordinators, and administrators as long as there is an internet connection. Chapter 1 mainly discusses the background of the study, and all the relevant information about the system. This is also where the proponents discusses the project description and logo. The proponents also discussed the problems the system sought to resolve, the main goal of the study, and its scope, limitation, and delimitation. Chapter 2 is all about the related literature, studies, and systems that the proponents referenced for the study. The proponents consulted the most recent studies, books, and internet articles related to the study's area to gain sufficient knowledge in analyzing the study's research data. Chapter 3 discusses the research project's methodology, feasibility, and system flow. The proponents also discuss how they used the waterfall methodology in developing the system, and how they proved it feasible by making a cost-benefit analysis. The system, flow will be discussed via tables and charts. Chapter 4 tackles the system's evaluation by the respondents, where it got ratings ranging from highly acceptable to moderately acceptable. The respondents composed of end-users and expert users. Finally, Chapter 5 shows a summary of the system's evaluation where the proponents explain the reason behind the system's highly acceptable to moderately acceptable rates. The chapter also has the conclusion and future recommendations for the system.*

Keywords – *Waterfall methodology, cost and benefit analysis, SDCA HEI portal.*

Introduction

St. Dominic College of Asia HEI Portal is a Higher Education Institution Portal where all student information can be found. In addition, the system provides an online assessment function that let the students manage their subjects according to their respective courses, and also lets the students see a record of their school payments. The portal will be managed by school administrators and will be accessible to registered students.

At present, SDCA HEI portal is a great help in managing the grades of registered SDCA students. However, the proponents want to improve the portal even further (Beynon, 2004). It will not only be the place where students can see their grades, but also where they could submit their suggestions and concerns for the courses and programs they are enrolled in (Gonzales, 2009). So, the proponents decided to create a system that provides students a complete service with functions like enrolled class schedules, subject petition, administration management, and an event calendar. The SDCA HEI Portal will benefit the students by providing them a faster way to acquire the information they need, saving their time and effort.

Through a notification function, the students will be notified on events (Grady, 2010). The system will also allow the registered user to monitor subjects on their respective courses (Garcia, 2008). Finally, the portal's class schedule viewing function will save the student time as he/she would not have to go to the campus to find out if he/she had no classes that day.

Methodology

The proponents use Avelino's waterfall methodology (Avelino, 2013) as the basis of the proposed system's System Development Life Cycle (SDLC). The first phase is the Requirement Analysis, where system requirements are gathered to create the system's development timeframe. The second phase focuses on the system's design, where the overall system architecture is figured out. The third phase is Implementation, in which the data gathered is compiled and translated into output. The last phase is Testing and Maintenance, which is focused on the system's deployment and management in a client environment.

Requirement analysis. Gives the professional systems engineer a list of the tools needed by setting up a proper and effective analysis of the resources, schedules, and parts needed to successfully undertake and complete any large and complex project.

Design. The phase where a high-level design is made, consisting of developing an architectural structure for software components, databases, the user interface, and the operating environment.

Implementation. Implementation is the carrying out, execution, or practice of a plan for software development.

Maintenance. It is the combination of all technical and related administrative actions including supervision, with an aim to retain an item in or restore it to a state in which it can perform its required function as defined by Avelino (2013).

Results and Discussion.

This chapter shows the data gathered out of the tools used in the study according to the challenges presented in chapter 1. This chapter tackles the system's content, usability, efficiency, functionality, reliability, and security as evaluated by expert users and end-users.

To test the system, the proponents used the following criteria in the evaluation of the developed system.

1. **Content.** The content refers to the visual content of the system. This had a rating of Highly Acceptable.
2. **Usability.** The usability discusses the ability to use the system in an easier and understandable way. This had a rating of Highly Acceptable.
3. **Efficiency.** The efficiency focuses on the system's effectiveness to display user-requested information. This had a rating of Moderately Acceptable.
4. **Functionality.** The functionality refers to the range of operations that can be run in a system and utilized by users. This had a rating of Highly Acceptable.
5. **Reliability.** The reliability focuses on the ability of the system to perform tasks requested by the user under stated conditions. This had a rating of Moderately Acceptable.
6. **Security.** The security refers to the system's ability to organize and authorize its administrator/s for the system's security and integrity. This had a rating of Moderately Acceptable.

The proponents determined the system's rating through the results of the evaluation test from expert users and end-users after computation. The researchers used the levels of satisfaction and respondents' frequency. Both the end-users and expert users have 75% frequency.

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