**Saint Michael the Archangel Academy Online Pre-Registration**

A Capstone Project

Presented to the

College of Liberal Arts and Sciences

Information Technology Department

Colegio de San Juan de Letran

Abucay, Bataan

In Partial Fulfillment

Of the Requirements for the Degree of

Bachelor of Science in Information Technology

Major in Software Development and Network Engineering

by

Dato, Arden D.C.

Falle, Dominic Q.

Hizon, Anthony P.

**Instr. John Louise R. Olmo**

RM1 Adviser

**Instr. Alma V. Perol**

RM1 Coordinator

March 2016

TABLE OF CONTENTS

**PRELIMINARIES PAGE**

[Chapter 1 – INTRODUCTION 2](#_Toc412490789)

[Background of the Study 2](#_Toc412490790)

[Statement of the Problem 3](#_Toc412490791)

[General Problem 3](#_Toc412490792)

[Specific Problems 3](#_Toc412490793)

[Objectives of the Study 3](#_Toc412490794)

[General Objective 3](#_Toc412490795)

[Specific Objectives 3](#_Toc412490796)

[Significance of the Study 4](#_Toc412490797)

[Scope and Delimitations 5](#_Toc412490798)

[Chapter 2 – REVIEW OF RELATED STUDIES 6](#_Toc412490799)

[Related Studies 6](#_Toc412490800)

[Local 6](#_Toc412490801)

[Automated Enrollment System of Northridge Montessori School 6](#_Toc412490802)

[Colegio de San Juan de Letran – Manila Online Enrollment System 7](#_Toc412490803)

[University of Cebu – Lapu-Lapu and Mandaue Online Enrollment System 8](#_Toc412490804)

[Foreign 9](#_Toc412490805)

[Student Enrolment System 9](#_Toc412490806)

[Tokyo International University Online Application 9](#_Toc412490807)

[Edith Cowan University Web Enrollment System 10](#_Toc412490808)

[Operational Definition of Terms 11](#_Toc412490809)

[Chapter 3 – METHODOLOGY 12](#_Toc412490810)

[Microsoft Solutions Framework 12](#_Toc412490811)

[Envisioning Phase 12](#_Toc412490812)

[Planning Phase 13](#_Toc412490813)

[Developing Phase 13](#_Toc412490814)

[Stabilizing Phase 13](#_Toc412490815)

[Deploying Phase 14](#_Toc412490816)

[Bibliographies 15](#_Toc412490817)

[Appendices 16](#_Toc412490818)

[Appendix A: User Interface 17](#_Toc412490819)

[Appendix B: Database Design 37](#_Toc412490820)

**LIST OF FIGURES**

|  |  |  |
| --- | --- | --- |
| **Figure #** | **Title** | **Page** |
| 1 | Microsoft Solutions Framework | 12 |

# Chapter 1 – INTRODUCTION

## Background of the Study

In many parts of the Philippines, schools are all around and it is their job to give quality education to their students. One of the options for promoting a school is by the use of the World Wide Web that is very known to many ages and is one of the quickest way to get in touch with.

## Statement of the Problem

### General Problem

How to advertise and promote Saint Michael the Archangel Academy using the World Wide Web?

### Specific Problems

1. Saint Michael the Archangel Academy uses a manual process and is sometimes slow especially if five to ten people are going to enroll on the same day;
2. The registrar cannot accommodate some of the its enrollees because sometimes the enrollees will inquire at the same time with different questions; and
3. Registration process takes time for some students while they are filling out their information and falling in line.

## Objectives of the Study

### General Objective

To create Saint Michael the Archangel Academy’s website and pre-registration online that will advertise the school and make the enrollees advance this step of the enrollment during at home.

### Specific Objectives

Specifically, this study aims:

1. To create a web-based application that would make clients access it at home;
2. To help enrollees skip a step in the enrolment process;
3. To promote the school by the use of the website; and
4. To evaluate the performance of the developed system by the feedback of the end-users.

## Significance of the Study

**To the Parents and Students**

The study will benefit the parents and students of Saint Michael the Archangel Academy because they can register at home conveniently and save time from enrolling.

**Saint Michael the Archangel Academy**

The school itself will enjoy its benefits because it will help the school to be productive but with less work done. It will also serve as the mark of the progress of the school.

**The Proponents**

This will help them to improve their skills and to earn experience of developing system aside from the previous systems that they had made.

**Future Researchers**

This study will serve as a reference for future researchers. It will give them the idea and teach them how to develop a website and an online pre-registration.

## Scope and Delimitations

This study will focus on Saint Michael the Archangel Academy’s website and pre-registration done online. This online system is designed for students who are currently and going to study in SMAA. The online pre-registration features

The online pre-registration does not cover the payment of tuition fees due to transactions will be done directly on the school’s cashier.

# Chapter 2 – REVIEW OF RELATED STUDIES

## Related Studies

### Local

#### Automated Enrollment System of Northridge Montessori School

Northridge Montessori School is facing difficulties on its enrollment system before. Due to its manual process, they cannot view the confidential files of its students and they manually input their information into a software application, the Microsoft Excel. The school wanted to upgrade its enrollment process for use in the future of the school and to be technologically advanced. Additionally, because of the school’s increasing population of students, they need to easily organize the data of its students and view it as well. The automated enrollment system becomes the answer for the school’s difficulty for its enrollment process. The system lessens time consumption than that of the manual process that takes up all the time for their job to be done. (Pantaleon, Salazar, Raymundo, & Decena, Background of the Study, 2010)

The enrollment system of Northridge Montessori School has almost the same objective as what the online registration system of Saint Michael the Archangel Academy wants to achieve and it is to lessen time consumption and to give us an idea on how to create the proper application or track and to organize the data of the students so we can easily find and solve it if a problem has occurred. The proponent’s program will be having a filter of subjects assigned to each year level.

#### Colegio de San Juan de Letran – Manila Online Enrollment System

Colegio de San Juan de Letran - Manila has an online enrolment system and was launched at exactly 12 midnight on the 14th of October, 2006. The on-line enrolment allowed the students to enroll subject in the next regular semester through the internet. The system required every student to avail of the web service in order to simplify the process of the actual enrolment. It also allows students to register into different subjects which are done through an online facility in the DotLetran portal. Jan Dizon, ITC web master, said that online enrolment aims to lessen the steps in enrolment and give the students freedom to choose their subjects and schedule. Jun Lao, also of the ITC, explained the features of the online enrolment. *“It has auto-advising capability wherein it is equipped with pre-requisites, overload, conflict, and clearance checkers.”* Since it is a new system back then, problems occurred especially for students who failed to update their accounts and those who are transferees. (Pantaleon, Salazar, Raymundo, & Decena, Colegio de San Juan de Letran - Manila Online Enrollment System, 2010)

This system is an enrollment system created for the college students of Letran Manila but the proponents will develop a registration system for high school which can also be accessed through internet which makes the system easier to handle and manageable. In their system, many things are included like the picking of schedule and they enroll their own subjects. The proposed system is much more basic. The subject of the enrollees will depend on the selection of year level.

#### University of Cebu – Lapu-Lapu and Mandaue Online Enrollment System

University of Cebu has a slow process when it comes to its enrollment however they are still able to attract many enrollees to study at the university which can be a bit of a problem for the institution. Due for the reason of the slow process will hinder their ability to provide the service to their enrollees. Thus, the researchers come up with the idea of providing the school with a computerized way of enrolling their students and make the process faster than the current method and it is by the use of making the enrollment system online. The system is described to be a paperless process, transaction fast, and hassle free method for both the students and the school. With this system, the productivity and efficiency of the day-to-day operations can be truly added by computerizing the business and it helps to serve more students than that of the previous method used as well. (Lababit & Sorono)

The online enrollment system of University of Cebu and online registration of Saint Michael the Archangel Academy both have the same functionality in the registration which makes the study relevant to the development of Saint Michael the Archangel Academy Online Registration System. Still, the online system aims to make the process skip a step to proceed with the payment process which can make it more productive by making the process via the internet.

### Foreign

#### Student Enrolment System

The University of Wollongong’s Student Enrolment System is created to aid and give guidance to the students who want to enroll in a subject and what subjects should they take. The advisors will be able to accept the request of the students in a particular subject using the functions provided by this system. (Harris, Henderson, Kalokerinos, Mintoff, & Nolan, 1985)

Although automated, the University of Wollongong’s Student Enrolment System shares the same objective with the online registration system of Saint Michael the Archangel Academy, the registration system aids the student to register to their year level which automatically checks what subjects they are going to be enrolled into.

#### Tokyo International University Online Application

The Online Application of Tokyo International University is a big help for the institution being that it is an international university and the university have many students not just in Tokyo, Japan but also from other parts of the world. This online application is a way for their enrollees, far from the country, to apply being a student at the university. (Tokyo International University Website)

It gives idea on how to generate the registration form to be online and relate the forms of Saint Michael the Archangel Academy and Tokyo International University so it can be applied to the development of the online system. Comparison of the designs of the tables and rows of the data in the registration forms are done as well to make the database qualify the needs of the school’s registrar. Furthermore, the process of enrolment between the two schools is compared to apply the manual process into online.

#### Edith Cowan University Web Enrollment System

According to the coordinator of Admission Support of Kerian Greenaway, the system known as the Edith Cowan University Web Enrollment System (ECUWES) had replaced the traditional hard copy system of enrollment. The system offers immediacy and convenience of course enrolment via the internet. The said university in Australia is currently enrolling more than 5,000 new students with easier transactions cause of their online enrolment system. In the local setting, academic institutions both the private and government schools are shifting from manual to computerized system including student registration. This is accomplished either on an intranet or internet-based environment. (Cradan, 2013)

Due to the same fact that enrollees in Edith Cowan University and Saint Michael the Archangel Academy has the same hard copy system of enrolment and slow process when many students enroll, the proponents have compared and in fact have the same problems with the university. This problem can be solved by applying an online registration system and take many students who are willing to enroll in the specified school.

## Operational Definition of Terms

The following terms are defined operationally to better understand the project study:

**Assessment** pertains to the process of evaluating fees, subjects to be taken in a section, and registration form.

**Enrolment** **(or Enrollment)** is a method of registering in an academic institution using a step-by-step process depending on the school’s preferred sequence of enrolment.

**Registrar** is an official in an academic institution who maintains students’ personal and academic records, issues reports of grades, mails out official publications, etc.

**Registration form** refers to the paper filled out by an enrollee who is registering in a school. The registration form is comprised of personal information of a particular person enrolling in the school which is his/her full name, age, address, phone number, etc. It is first given by the registrar to list the enrollee’s information over to the records of the school.

**Saint Michael the Archangel Academy Website and Online Pre-Registration** refers to the system in which will be used for the efficiency of registering indirectly at Saint Michael the Archangel Academy (SMAA) by the use of a computer or laptop and an internet connection.

**Webhost** is in the business of providing server space, Web services and file maintenance for Web sites controlled by individuals or companies that do not have their own Web servers.

# Chapter 3 – METHODOLOGY

## Microsoft Solutions Framework



*Figure 1. Microsoft Solutions Framework*

### Envisioning Phase

During the envisioning phase, the focus is on creating clear definitions of the problem and understands the high level approach to solve the problem. It completed task and creates deliverables to meet the goal of this phase and to create a view of the project’s goals.

During this phase the proponents interview the client to gain some information about the process of their enrolment. Internet researching, brainstorming and visiting the library were done by the proponents to formulate the problems and objectives of the project. The scope and limitations of the study were determined as well.

### Planning Phase

During the planning phase, the proponents determine what to develop and plan how to create the solution. The proponents prepare the design of the solution, and prepare work plans, and schedules for the various deliverables.

The proponents determine what solutions will be applied to problems that might be encountered in the future. In this phase, the proponents planned also the logical and physical design of the proposed project. They created a prototype application as well.

### Developing Phase

During the developing phase, the proponents create the solution. This process includes creating the code that will implement the solution and as well as documentation.

The proponents used Visual Studio 2013 Ultimate for the programming interface, SQL Server 2008 for the database of the system and ASP.NET C# as the programming language.

### Stabilizing Phase

The primary goal of the stabilizing phase is to improve solution quality to meet the acceptance criteria for release to production. Testing during this phase extends testing that was conducted during development by emphasizing usage and operation under realistic environment conditions. The team focuses on resolving and triaging bugs and preparing the solution for release.

The proponents fix bugs that are still visible in the system so it can be set for release and for use. Every requirement needed will be checked and testing will be conducted to find errors that the user might encounter with the system.

### Deploying Phase

The overarching goal of the deploying phase is to place the solution into a production environment. Supporting goals include deploying the solution technology and components, stabilizing the deployment, and transitioning the project to operations and support. After the deployment, the team conducts a project review and a customer satisfaction survey. Stabilizing activities may continue during this period. The Deploying Phase culminates in the Deployment Complete Milestone, when the team obtains final customer approval of the project.

The proponents will deploy the system. They will also conduct surveys from the school’s clients, meaning its enrollees, if the system is of great help.

# Bibliographies

(n.d.). Retrieved from Tokyo International University Website: http://www.tiu.ac.jp/english/etrack/

Cradan, E. (2013, November 9). *Chapter 2-Related literature and studies.* Retrieved from Slideshare Website: http://www.slideshare.net/EzhrihmCradan/chapter-2-28073663

Harris, O., Henderson, D., Kalokerinos, N., Mintoff, J., & Nolan, P. (1985, November). Retrieved from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1057&context=compsciwp

Lababit, N., & Sorono, J. A. (n.d.). *Capstone Projects and Thesis.* Retrieved January 6, 2015, from College of Computer Studies-LM Website: http://ccs-lm.uc.edu.ph/mod/data/view.php?d=1&rid=2

Pantaleon, K., Salazar, E., Raymundo, E., & Decena, D. (2010). Background of the Study. In *Automated Enrollment System of Northridge Montessori School* (pp. 1-2). Abucay, Bataan.

Pantaleon, K., Salazar, E., Raymundo, E., & Decena, D. (2010). Colegio de San Juan de Letran - Manila Online Enrollment System. In *Automated Enrollment System of Northridge Montessori School* (p. 3). Abucay, Bataan.

# Appendices

## Appendix A: User Interface

Appendix B: Database Design