

Student's Record Viewing System: Naga City Science High School's Version of myADNU

Mark Arthur Caro III
Ateneo de Naga University
4400
Naga City, Philippines
mcaroiii@gbox.adnu.edu.ph

John Mark Combate
Ateneo de Naga University
4400
Naga City, Philippines
jcombate@gbox.adnu.edu.ph

Maria Michaela Lorenzo
Ateneo de Naga University
4400
Naga City, Philippines
mlorenzo@gbox.adnu.edu.ph

Joecel Manansala
Ateneo de Naga University
4400
Naga City, Philippines
jmanansala@gbox.adnu.edu.ph

Maurice Vales
Ateneo de Naga University
4400
Naga City, Philippines
mvales@gbox.adnu.edu.ph

1. INTRODUCTION

1.1 Project Context

Naga City Science High School is a Secondary Public Science high school implementing the Science, Technology, and Engineering program of the Department of Education. This program provides the students with a very strong background in Science, Mathematics, and Research.[1]

As of now, NCSHS still doesn't have any online monitoring system. It mainly relies on the traditional way of giving the students their grades, announcements and other academic related things except for the web site which contains only limited informations regarding the school. When it comes to grades, students can view their grades every after the quarterly PTA meetings. They still need to visit the school for them to receive their report cards. In addition, there are instances that the release of report cards are postponed due to lots of factors.

1.2 Purpose and Description

This project aims to develop an easily accessible online monitoring system for Naga City Science High School, especially for the student body, that will allow them to view their subjects and its corresponding schedule, grades, assessment and academic calendar for the entire school year.

This project is a web based system which can be accessed online. This will serve as a guide for the students to monitor their academic status for the entire year. Students will be given unique username and set their passwords where they can use to log in and view their academic related informations. The project will be developed and implemented using RAILS, JAVASCRIPT, HTML and CSS programming languages.

1.3 Objectives

1.3.1 General Objectives

The main objective is for the users to view their records in a school year.

1.3.2 General Objectives

To achieve the main objective, the following specific objectives must be implemented:

- To allow the students view their current enrolled subjects and schedule, as well as the teacher handling the subject and the basic information about their classmates (student's ID and name of the student).
- To give permission to the students view their grades every quarter.
- To let the students monitor their assessment, especially those teachers who let their payments charged into their accounts.
- To let the students view the academic calendar which consists of all the activities for the entire school year.

1.4 Scope and Limitations

The project is intended for Naga City Science High School students only for monitoring their grades, assessment, checking the schedule of enrolled subjects and school announcements. Only officially enrolled students are allowed to use the web application, and each student has their own unique account. Students who transferred schools and those who graduated Grade 12 cannot access the web application. Students can check the class list in a specific subject, but they cannot access other student's profile information. The administration of this web application can post announcements and other important events. Any information that was given to the registrar will be used in the student's account to avoid information discrepancy.

2. REVIEW RELATED SYSTEM

2.1 myADNU

myADNU is a web application for ADNU College students that allows viewing of information about their course schedule, grades and advised subjects for the semester. Through myADNU, students can also inquire and print their SOA (Statement of Account). Notifications regarding deficiency (such as back accounts, academic inquiry) are reflected in student's myADNU personal account so that he or she is notified regarding his or her deficiencies.[2]

2.2 My.Lasalle Portal

The Information Technology Services (ITS) Office conceptualized the Internet portal dubbed "My.Lasalle" <https://my.dlsu.edu.ph>, from a single idea to give each De La Salle active e-mail account holder access to the University's different information services anytime, anywhere. This portal is a one-stop system that enables an active account holder to avail of the different information services like course availability, course-section schedules, account balance information, campus calendar, campus news and events, monitoring of grades and e-mail using Outlook Web Access. In the future, students can also use this in building discussion boards. On the other hand, faculty members use the facility to access records in faculty evaluation and grades recording/monitoring/submission, to build mailing lists of classes handled, and to communicate with students.[13]

2.3 Parent Portal

Parent Portal is a reliable, secure software to help parents and schools monitor students' daily activities and progress through web and with mobile applications.

Parent Portal is a very useful tool that helps them to keep the parents updated about the students' performance at school. It enables constant communication between teachers and parents as well. They will be able to track each student's performance and identify the students who need more attention and care. Apart from that, the integration of school bus tracking system in the Parent Portal means both parents and school administration are able to keep track of the real time location of the students from their desktop or smart device. This provides safety to the child.[11]

2.4 Child Progress Monitoring Tool

The CIRCLE Progress Monitoring System (formerly known as C-PALLS+), is a user-friendly, technology-driven tool that enables the teacher to assess a child's progress in a particular skill area almost instantly. This simplistic yet reliable data collection prompts teachers to focus on lessons that target their students' least developed skill areas. The CIRCLE Progress Monitoring System is aligned with the Head Start Child Development and Early Learning Framework, and is listed on the 2016-17 Commissioner's List of Approved Prekindergarten Progress Monitoring Instruments.[12]

3. TECHNICAL BACKGROUND

3.1 Ruby on Rails

Ruby is a language of careful balance. Its creator, Yukihiro "Matz" Matsumoto, blended parts of his favorite languages (Perl, Smalltalk, Eiffel, Ada, and Lisp) to form a new language that balanced functional programming with imperative programming. It is a dynamic, open source programming language with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write.[3]

Rails is a development tool which gives web developers a framework, providing structure for all the code they write.[4] It is designed to make programming web applications easier by making assumptions about what every developer needs to get started. It allows you to write less code while accomplishing more than many other languages and frameworks.[5]

Rails combines the Ruby programming language with HTML,

CSS, and JavaScript to create a web application that runs on a web server. Because it runs on a web server, Rails is considered a server-side, or "back end," web application development platform(the web browser is the "front end"). Later, this article will describe web applications in greater depth and show why a web development framework is needed to build complex websites.[6]

3.2 Javascript

JavaScript ("JS" for short) is a full-fledged dynamic programming language that, when applied to an HTML document, can provide dynamic interactivity on websites. It was invented by Brendan Eich, co-founder of the Mozilla project, the Mozilla Foundation, and the Mozilla Corporation.[7]

JavaScript (JS) is a lightweight interpreted or JIT-compiled programming language with first-class functions. While it is most well-known as the scripting language for Web pages, many non-browser environments also use it, such as node.js and Apache CouchDB. JS is a prototype-based, multi-paradigm, dynamic language, supporting object-oriented, imperative, and declarative (e.g. functional programming) styles.[10]

3.3 HTML

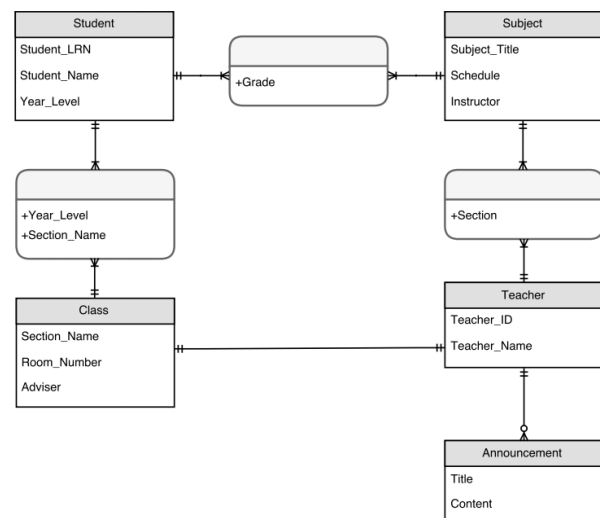
HTML (HyperText Markup Language) is the most basic building block of the Web. It describes and defines the content of a webpage. Other technologies besides HTML are generally used to describe a webpage's appearance/presentation (CSS) or functionality (JavaScript).[8]

3.4 CSS

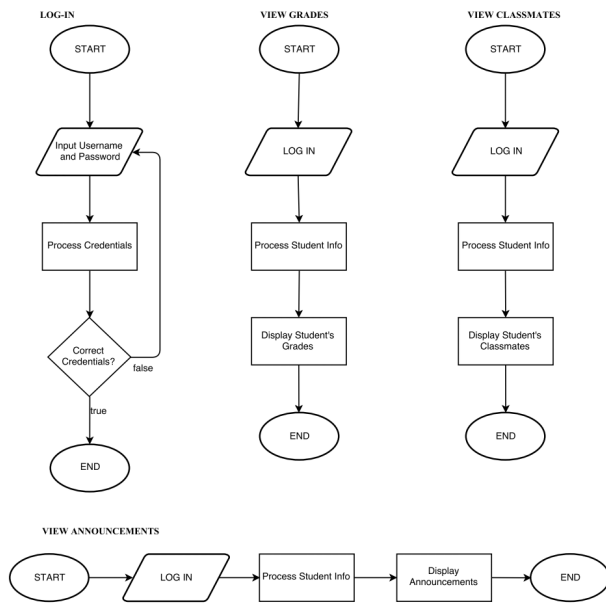
Cascading Style Sheets (CSS) are a stylesheet language used to describe the presentation of a document written in HTML or XML (including XML dialects like SVG or XHTML). CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.[9]

4. DIAGRAMS AND PROCESS FLOWS

4.1 Entity Relationship Diagram



4.2 Process Flow Diagram

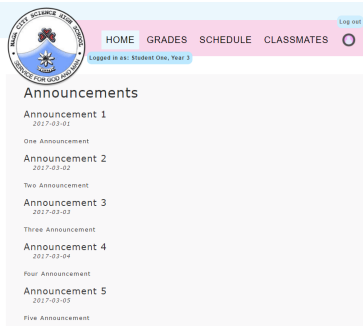


5. SCREENSHOTS

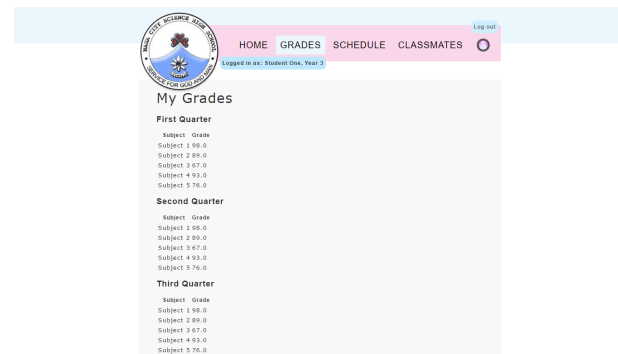
5.1 Login Page



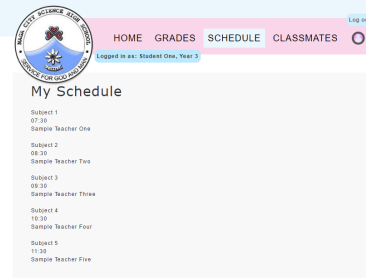
5.2 Home Page



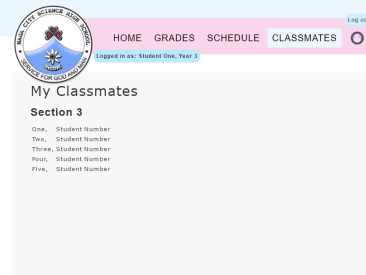
5.3 Grades Page



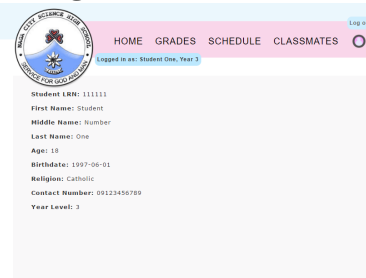
5.4 Schedule Page



5.5 Classmates Page



5.6 Profile Page



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