Attendance monitoring system assignment

CHAPTER I INTRODUCTION Project Context The advancement of technology today has immersed itself towards education. The presence of technology has reached its maximum of providing sustainable technology towards quality education through delivery and effective learning. [l] The Isabella State University Laboratory High School is one of the public high schools that embrace information and communication technology now. As they immersed themselves with technology through their delivery of lessons and other forms brought about by Information technology.

Attendance is very important in every student, a ingle absent is big difference in performance in the school. Mostly students Of high school are prone to absences, it is because Of some reasons that they think it is a boring class, laziness to attend the class, some students prefer going to computer shops playing games rather than entering the class and some student cannot refuse the influence of a friend inviting to go with them during class period.

Some of this reasons are not reported to the parents or guardians because the way of informing them is the traditional way which is they inviting the parents through telling the students that the parent need mom to school and communicate with the teacher about the absenteeism of the student. This process takes a long process and sometimes parents are not able to come because of some reasons that the parents are busy at work; they are away from the school and have an important matter to take care of. These are the reason why the parents are not informed about the absenteeism of the students.

In this manner, the researchers therefore proposed the Parent Portal and Attendance Monitoring System with Short Message Service (SMS). The design and development of the system consists of two platforms. The first platform is the stand alone or window-based system. The stand alone or window-based system's function is to record attendance. If the student is absent and it is recorded to the stand alone system or window-base system, it will open a form that contains the SMS application that has a function to send a notification to parent that the student is absent.

Saving of attendance in the stand alone or window-based system will trigger the second platform which is the parent portal or web- based system to duplicate the recorded attendance of the stand alone or window-based system. In other words, the two platforms will record the attendance simultaneously. The parent portal or web-based system function is to display the recorded attendance. This will allow the registered parents to view the attendance of their own child.

The Parent Portal and Attendance Monitoring System with SMS will help the parents to inform about their students. Since there are two platforms that will be develop, informing the parent about the student is also two ways. The first way of informing parent about the attendance of the student is to send a notification using SMS and he second way of informing the parent is to access the Parent Portal or web- based system. The Parent Portal and Attendance Monitoring System with SMS provide a fast way of informing the parent anytime many,'here.

Purpose and Description of the Study The study is focused on the attendance monitoring of the students in the school through the design and development of a system providing a means of information on the student's inputted grades and attendance of the student's on the school through parent portal and via SMS reminder notification. The study main reason of existence is to send information to the parents. The information composed of the student's attendance to class.

The recorded everyday attendance to class is displayed in the parent portal and if absences occur it automatically sent to parents. The system also includes; inputting of students grades and computation of student's average per grading period. With the system providing a user-friendly and effective system provides an easier and faster view of data of every student such as when the faculty/ adman is mistaken in the input of grades, the system provides the means Of updating the record. The system can retrieve information from the database ND can view anytime.

Objective of the Study General Objective: The design and development of Parent Portal and Attendance Monitoring system aims to provide an interface for the parent to monitor their child's attendance to school; specifically has the following functionalities: Window- based System 1 . A system that will record the student's attendance and inputted grade in each subject every grading period. 2. A system that has a web browser feature that will replicate the inputted data in stand-alone system. 3. A system that will create an account for parents to have an access to the parent portal SMS Application 4.

Send an SMS to the parents telling them if their son/daughter is absent. Parent Portal 5. A web-based system that will display the inputted records in the stand alone system. 6. A web-based system that will compute the average of a student per grading period. 7. A web-based system that will display the rank of the student. 8. A web-based system that will print report. Scope and Limitations of the Project The proposed parent portal and attendance monitoring system with SMS is designed and developed for the whole school year 2012-2013 at Isabella State University Laboratory High School.

The design and development of the project shall compose of two distinct functionalities such a windows-based system and web-based system. In terms of windows-based system, the system's function is on the recording of class attendances and inputting computed grades. The system also manages the user registration to the system such as; Adman of the Window-based system and Guardian who are the user of the parent portal and receiver of the notifications via SMS- The system provides functionality of recording the individual records of the dents such as attendance and inputted grade in every grading period in the school.

The system also provides a search capability for the user can easily view the student records. The system also provides the functionality of sending notification and reminder via SMS. These notifications are the absences of the student. The reminder will sent to the parents for them to know what is happening to the student. In terms of the parent portal, the services provided the parent, the ability to view the class attendances and computed

grades in every quarter and the ranking of their child in entire grading. The parent can also generate report through printing.

The performance in terms of grades, attendances, quizzes, participation, assignment/projects and periodical test misconducts in school quarterly are not to be displayed in parent portal. The functional limitation of the project is based on the functional role of the users to the system and web based system. There are two users to the system, the administrator and the parent. In terms of the adman, it has the capability to perform the recording as well as the updating the records in terms of the students attendance and computed grade in every quarter.

Every update and recording of the student's performance is automatically posted to the Parent Portal. While on the side of the parent, it has the capacity to log in from the web by accessing the web portal. The parents directly view his/ her child performance base on its grades and attendance to school in parent portal. CHAPTER II REVIEW OF RELATED LITERATURE Related Studies/Theoretical Background There is a significant body of research demonstrating the contribution of parent involvement to student learning.

Henderson and Map (2002) reviewed several studies and provided a synthesis of the research findings. The report points to the strong impact of parent involvement on both student achievement and attendance and behavior. Research also indicates that participation declines with grade level, that socioeconomic status and family situation are factors in determining parent involvement and that students want their families to be involved

(Epstein, 2002). Perhaps the most widely quoted work is by Epstein (2002) in her model of parent involvement which describes six different categories.

Pusher (2007) extends the definition beyond involvement to engagement and argues that engagement is the Lamar of parent connections that truly make a difference for students. Reports in studies are related to project's objective. Since the parent's involvement in the student is very important, the researcher's study is to develop a system that would monitor the students for the parents. All the models speak to the importance of context in understanding parent engagement.

While the types of engagement can be described, schools will be successful in working with parents and communities if the staff take time to listen, to understand, and to relate to the families with whom they work Pusher, 2007). Each child arrives at school carrying the aspirations of the parent (Marijuana's, 2002), a family background (Bethel, 2004), and the culture of the family community. In this case, researchers must develop a communication between the staffs and the guardians of the students.

The Quest for Communities that Work: Sustaining Student Improvement, An International Symposium for Education and Community Leaders, Richmond Hill, Ontario, Canada. (Supplied by author) This report highlights the findings Of a research project with the primary purpose of determining if school nuncios have the ability to influence the rate of parental participation in education, with a particular emphasis on the types of involvement that may lead to improved student learning. The secondary purpose of the research project was to identify the ways in which Notation's parents prefer to be

involved in their children's education. Comments) The study concluded that a deliberate focus and activity related to the Epstein framework did produce a higher level of parental involvement as compared to schools without such a focus. Four recommendations for organizing programs to stimulate parental involvement are made. 1 . Stimulate activity within eight strategic categories of involvement. These are described in the, an extension of the Epstein (2002) model, adding Attending School Events and Fundraising to the model.

Experimental research on the use of progress monitoring to enhance student performance has focused primarily on one form of progress monitoring: Curriculum-Based Measurement (CB). Academic areas frequently assessed using CB include reading mathematics, written expression, and spelling. Criteria that describe the measures used as part of CB include valid and liable indicators of generalized performance, short duration to facilitate frequent administration, a focus on direct and repeated measures of student performance, multiple forms that are inexpensive to create and produce, and sensitivity to changes in student achievement over time.

Related Studies In a study developed by Wilson Abacas Learn (1 999), on a Proposed Grading System of Subcategories National School of Arts and Trade Sunday Subcategories Squiring, she noted the following: 1 . Slow Grade Computation 2. Time Consuming 3. Inaccuracy grades 4. Bulky Workload For those reasons, she recommends a computerized system: 1 . To reduce the time and effort in computing grades 2. To provide complete processing needed with efficiency and accuracy 3. To provide accurate grades reports. 2] The study violins Abacas Lorraine has the capacity to record the grades of

the students but the grades recorded in the system must inform to parents, in this case the researcher's used the widely known World Wide Web to browse the grades of the students and see the top performed students and also, the parents can discuss the grades of the students. In a study of Jennifer C. Cotton (2001), on a Proposed Computerized Student Monitoring System of the Information Technology of University of La Salute Santiago City, she noted the following: 1. Slow data processing 2. Inaccuracy of repost 3.

Lost of unrecorded files For those reasons, she recommends a computerized System: 1. TO answer data security and fast, accessing of students information 2. TO lessen document in folder because it will already be placed and stored in diskettes for more secured data storage. 3. To make the job of staff, cashier, faster and more accurate. [3] Jennifer C. Cotton proposed a good system UT it is not well managed. The researcher didn't focus in recording but in disseminating the students' performance because it is the responsibility of the parent for them to know what is happening.

CHAPTER Ill TECHNICAL BACKGROUND In this chapter discuss the technicality of the project by which it describes the type of the project to be developed and its functionality. It also represents the type of application development of the project. Technicality of the Project Figure 1 . Network Architecture The proponents have used the web 2. 0 because it supports the features of he system like AJAX and JAVA script. The data fetched by an Ajax request is typically formatted in XML or SON (JavaScript Object Notation) format; two widely used structured data formats.

Since both of these formats are natively understood by JavaScript it can easily use to transmit structured data in their web application. When this data is received via Ajax, the JavaScript program then uses the Document Object Model (DOOM) to dynamically update the web page based on the new data, allowing for a rapid and interactive user experience. The system works and functions in 3-tier architecture, it imposed Of the presentation layer, application layer and persistence layer. From the diagram below describes the architectural layout of the project. In the diagram it represents the different functionalities of the system.

From the presentation layer, the faculty, adman and parent are the sole user involve in the system. The application layer is composed of the windows-based system and the web-based system. The window-based system is designed through the use of visual basic. Net application includes the use of a remote modem to send via SMS. While the web-based system is designed using the AJAX development, with CSS tools and other scripting to derive the functionality of the system. On the third layer is the persistence layer in which it is composed of the understanding of the database of all the system developed.

Details of Technology to be Use The scope of this section is the discussion on what are the technologies is being used and how did the researcher use these technologies. CAMP 1. 7 or higher Developers will use this as development tool, to allow website designers and programmers to test their work on their own computers without any access to the Internet Myself - pronounced either " My S-Q-L" or My Sequel," is an open source relational database management system. It is based on the structure query language

(SQL), which is used for adding, removing, and modifying information in the database.

Standard SQL commands, such as ADD, DROP, INSERT, and UPDATE can be used with Myself. Myself can be used for a variety of applications, but is most commonly found on Web servers. A website that uses Myself may include Web pages that access information from a database. These pages are often referred to as " dynamic," meaning the content of each page is generated from a database as the page loads. Websites that use dynamic Web pages are often referred to as database-driven websites. Myself will use by the researcher because it is one of the database that is compatible with the development of the system.

HTML -This is the language that Web pages are written in. If you want to create really great Web pages then you will need to learn this. As far as computer languages go this is the easiest to learn. You can create a Web page without it using a Web page editing program but the program will still use HTML to create the page. [4] CSS; Cascading style sheets re used to format the layout of Web pages. They can be used to define text styles, table sizes, and other aspects of Web pages that previously could only be defined in a page's HTML. CSS helps Web developers create a uniform look across several pages of a Web site.. Http://www. Etceteras. Com/definition/CSS] JavaScript-Like Java, this is a programming language designed by Sun Microsystems, in conjunction with Netscape that can be integrated into standard HTML pages. While JavaScript is based on the Java syntax, it is a scripting language, and therefore cannot be used to create stand-alone orgasm. Instead, it is used mainly to create dynamic, interactive Web pages.

For example, Web developers can use JavaScript to validate form input, create image rollovers, and to open those annoying pop-up windows. Like so many other things, we have to take the good with the bad.

AJAX- stands for Asynchronous JavaScript and XML. This is the latest technology on web development that allows the user to interact with the links without reloading the page. IV. Net-(Visual Basic . NET) is an object-oriented programming language from Microsoft. It is the . NET version of the Visual Basic (IV) regaining language. Like all . NET languages, IV. NET uses the Common Language Runtime (CLC) for program execution. IV. NET is substantially different from traditional Visual Basic, which has been the most popular language for developing Windows applications.

Modem- device that enables computers, facsimile machines, and other equipment to communicate with each other across telephone lines or over cable television network cables. In the strictest sense, a modem is a device that converts between analog signals, such as sound waves, and digital signals, which are used by computers. However, the term has also come to include devices that permit the transmission of entirely digital signals. Cellular Phone-A portable telephone that uses wireless cellular technology to send and receive phone signals. This technology works by dividing the Earth into small regions called cells.

Within each cell the wireless telephone signal goes over its assigned bandwidth to a cell tower, which relays the signal to a telephone switching network, connecting the user to the desired party. [6] How the Project will Work? To disseminate the information on the parents, the projects works in a

client based system. It shows how the project work and how the process done in all layers. From the presentation layer, where the client's interface or the parents, to application layer, where the administrator or the staff of the faculty, to persistence layer or the database layer of the system, the system is being explained in further details.

There are two kinds of system to be used view the information; through SMS and through Web Portal. It means that there are also TV'0 presentation layers, two application layers and two persistence layers. As you can see above figure, there are two users which are the parents, two application areas which are the application server of the window base application and the hobnobbing server and two database servers. To disseminate information on the parents, data and information must gather beforehand to record or save in the database of the system and ready to be viewed by the parents.

In order to collect data, the adman records the student grades every grading period to the system after able to collect all the grades from their subject teacher. One distinct feature of the system is that it automatically sends notification or reminder to the parent via SMS whenever his child incurs absences in school. It also automatically updates the record from the parent portal whenever there are updates made from the system. On the side Of the web-based system, the adman can therefore reply back to all query posted from the web portal by the parents.

METHODOLOGY Requirement Specification Operational Feasibility Fishbone Diagram One of the most effective method to track the root cause or

problem of the agency or at the area were the study were taken which is the school, fishbone method is being used because researcher can determine what problems are going to solve when the system is being implemented. The diagram below wows what are the data gathered by the researchers. It shows the cause and effect of the current system of the school. Figure 2.

Fishbone Diagram of the Project Functional Decomposition Diagram FED is a diagram that shows the breakdown structure in smallest component of the system that the researchers going to develop after studying analyzing the data that are gathered in feasibility and planning phase. This will help track the functionalities of the system and let you know the features that can are being added into the system. This diagram shows all the processes of the system. It will help the searchers on creating DEED because it is similar to context diagram that all processes are being displayed in one diagram.