

**STUDENT GRADE MONITORING SYSTEM: A
MOBILE APPLICATION FOR PARENTS
OF SAN BEDA COLLEGE ALABANG**
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Abstract

The use of the Student Grade Monitoring System (SGMS) by the parents of San Beda College Alabang will help them as well as the students in monitoring the grade components submitted by the professors. This application will be developed using Android Application that can run in different Android devices like mobile or even tablet devices. Professors will be having a web-portal to encode the grade components. The grades being entered will be viewed by the parents or even the students using their Android devices.

Introduction

Technology today has made life much easier as access to information can be done anywhere, anytime. As technology improves in the area of wireless facilities and mobile computers, mobile computing has become feasible. A variety of advanced mobile devices, some mobile wireless systems and mobile computing applications already exist. For example, people can send and receive emails and access the Internet using mobile computers via wireless networks.

This paper is a proposed application to be used by parents of the College of Arts and Sciences. It uses a mobile technology that can help the parents in monitoring the academic progress of their children. Most of the parents are not aware of their children's academic status and currently, the parents will just know that their child had failed once the grades are released every midterm and final periods.

Eventhough the school has an online viewing of grades using Prism, the components in computing the midterm and final grades are not be shown. Only the midterm and final grade are seen upon logging in the student account using prism. Parents are not also a user in the said online viewing of grades.

Objectives of the Study

This study aims to develop a mobile application for parents in monitoring the academic performance of their children.

Specifically this study aims to:

- Show the students' grading components such as quizzes, attendances, long test, exams and class participation;
- Provide communication from Parent to Teacher;
- Help the students become aware of his/her academic status.

The proposed mobile application will benefit the following:

- **Parents.** They can easily monitor their child's academic performances such as Class Participation, Quizzes, Long Test, Exam etc
- **Teachers/Professors.** They can be transparent in the computation of grades of the students.

- **Students.** They can be more aware of their academic status.
- **Program Chairs.** The program can lessen parent inquiries with regards to their children's failing grades.

The study is limited to the following:

- **Faculty Portal.** The faculty members will use the username and password in order to enter the online portal. They can manage the encoding of the grade components through Online Application at the same time read parents' messages.
- **Parent Mobile Application.** This mobile application will be used by the parents to access their children's academic performance. They have to install the mobile apps to their mobile devices to have access in the SGMS. They can communicate to the teachers through messaging.
- **Student Mobile Application.** This mobile application is the same with the Parent Mobile Application except for messaging.
- **Maintenance Module.** This module will be used for file maintenance in the system such as the subject teachers and their students together with the subject description. The person to be assigned is for the school administrators' discretion.
- The teachers can only use the online encoding of grade components.

- The administration can only facilitate its maintenance through the online portal.
- Parents and Students can only view the grading components through the use of a developed mobile application.
- The cost of implementation and policies are not covered by the study.

System Design Specification

The *System Design Specification* (SDS) is a complete document that contains all the information needed to develop the *system and the mobile application*.

The researcher gathered all the data to come up with the appropriate database design of the prototype that is reliable, accurate and with a normalized database design to ensure data integrity. It is composed of six (6) tables such as: faculty, parent, student, user, section, and audit trail.

From the data given on the statement of the problem, the researcher focuses now on coming up with the solutions to the different problems such as faster and accurate data storage to ensure that retrieval and updating of records can be more systematic for the different users for both mobile and web-application.

The following hardware and software components will be used to develop the prototype:

- Android/IOS Phones or Devices – used as the operating system / platform for mobile users.

- HTML/ASP/PHP – Languages used to develop the Online Faculty and Admin Portal.
- MySql – an application software that is used to design the tables and database of the system.
- Google Chrome/Mozilla Firefox- an Internet browser used for Online Faculty and Admin Portal.
- Web server – used as the storage of information for both Mobile and Web-based Application.

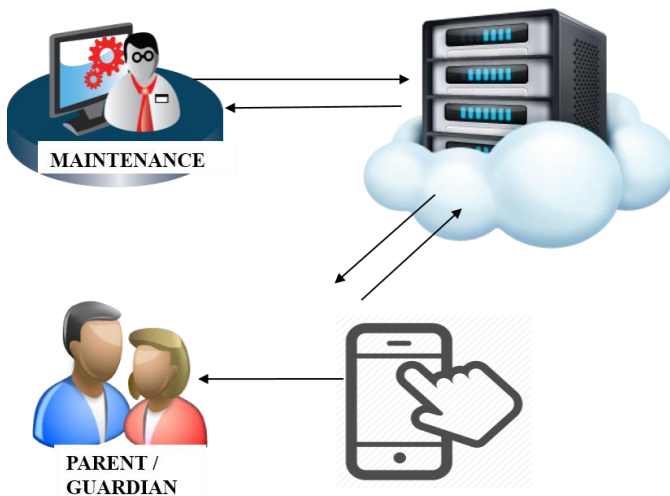


Figure 1.0 Prototype Infrastructure Diagram.

The diagram shows the prototype of the web and mobile based application as a whole. The teacher may encode and store the information of grading components through the web portal. Information from the server will also be used by the maintenance in facilitating users,

teachers and subject grades. Encoded grades can be accessed by the parents.

Sample Screen Design

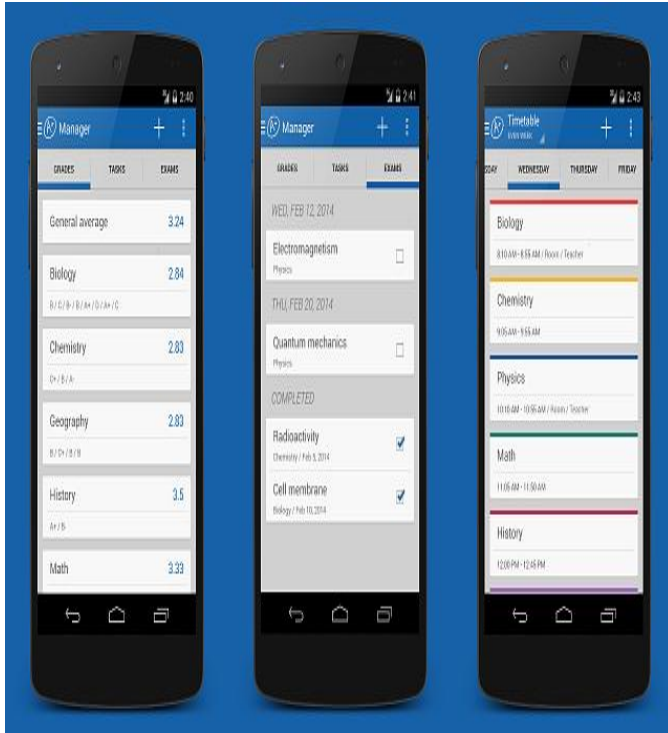


Figure 2.0 Student/Parent Mobile Application

Classes Attendance Scores Grades Schedule Discipline Lesson plans

Michelle's Progress	
Subjects	Current Avg
Math	80%
English	93%
Religion	72%
Science	90%
Reading	88.5%

Michelle's Recent Scores	
Description	Scores
Math - Quiz	88 / 100
English - Test	93 / 100
Religion - Quiz	72 / 100
Science - Quiz	90 / 100
Science - Homework	87 / 100

Michelle's Attendance
11/2013 to Today
4 Tardies
5 Excused Absences
2 Half Absence
2 Tardies
2 Half Absence
2 Tardies
2 Tardies

Michelle's Schedule Today
Today, 14 February (A Rotation)
08:05-09:10 - Math
09:15-10:15 - Reading
10:20-11:25 - English
11:35-12:00 - Lunch
12:10-13:00 - Social Studies
13:10-14:15 - Religion

Incidents
11/17/2012 - Written warning for inappropriate attire - served
11/22/2013 - 1 hr detention for misbehavior - served
2/2/2013 - 1 hr detention for hall pass violation - not served

Figure 3.0 Teacher/Faculty Portal

References

Deitel, P, Deitel H, Deitel, A (2012). *Android for Programmer*; Pearson Education Inc

McClure, W, Blevins, N (2012) *Professional Android Programming w/ mono for Android & .net / C#*; John Wiley and Son, Inc

Dolce, J (2010) *Android Development with Flash*; Wiley Publishing

Lee, W (2010). *Beginning iPad Application Development*; Wiley Publishing