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**Asia Pacific College**

**School of Computing and Information Technology**

**Magallanes, Makati City**

**PUBLIC SCHOOL RANKING SYSTEM**

**In Partial Fulfillment of the Requirements for the subject Software Development**

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# **ABSTRACT**

Ranking System is a project that can help schools be aware and help improve their students’ performance in their major subjects namely: Filipino, English, Mathematics, Science, and Araling Panlipunan through the help of Analytics. Together with the team’s client, Department of Education, they strive for excellence in the field of education in the Philippines.

# **INTRODUCTION**

Elementary education is the first part of the educational system, and it includes the first six years of compulsory education from grade 1 to 6, with an optional 7th grade offered by some schools. Major subjects include Mathematics, Science, English, Filipino and Araling Panlipunan.

The team believes that a student’s performance can be enhanced and strengthen with the help of analytics. Through a systematic analysis of data and statistics, the team, together with the client, Bureau of Education Assessment under Department of Education, may focus on students’ performance by viewing how the students perform in their major subjects. By acknowledging and knowing these factors, the teachers, together with their respective schools can keep track of their students’ performance and help them grow in their academics.

# **PROJECT DESCRIPTION**

How do we incorporate analytics in the academe? The team opted to use Moodle which is an online platform to administer Quarterly Assessment Exams. Each student will have an account and will automatically be enrolled in a course for their respective grade level. Once the students have answered all Quarterly Assessment Exams, the results will then be stored in the admin’s database containing the Student Name, Student ID, Exam Answers, and Answer Key.

The team, however, is very much conscious on the budget that will be allocated for the system. The team believes that implementing Moodle in every public school would require a huge budget allocation from DepEd. Therefore, another medium that can connect to analytics is the concept of Optical Mark Recognition (OMR) but proposing to replace the costly OMR machine using a regular ADF scanner. To facilitate this, Quarterly Exams are distributed in hard copies and would be scanned for checking. The results would also be extracted from the OMR to the system and would then be displayed on the dashboard for viewing.

# **TARGET CLIENT**

The project will be useful for the Bureau of Educational Assessment and will be beneficial to the Regional Directors, Division Superintendents down to the students.

# **BRIEF BACKGROUND**

The Department of Education (DepEd) in the Philippines is responsible for providing and maintaining quality education in the country. They are given the authority and privilege to regulate schools by implementing policies, plans, programs, and projects of formal and non-formal basic education. DepEd is responsible for overseeing all elementary and secondary education, as well as alternative learning systems whether it is public or private, and integrate system of basic education which is relevant to the goals of national development.

# **PROBLEM STATEMENT**

Aside from the fact that the system is not yet implemented in the country, it is also evident that quality education in public schools is compromised and needs improvement in technology. Also, due to the number of students in public school, it is only fair that teachers may be able to track their students’ performance with less hassle and stress.

# **SITUATIONAL ANALYSIS**

The problem stated above exists due to the philosophy opposing modern technology. It is hard and requires a huge amount of time to monitor the student’s progress throughout the school year without the intervention of technology because in the present situation, “eyeballing” is practiced in assessing data.

# **PROPOSED SOLUTION**

* Design a software which will be useful to evaluate student performance on OMR sheets. The system will be designed to process, extract and evaluate the scanned answer sheets.
* Build an exam generation system that is powered by Moodle to build and facilitate exams with a variety of questions and answers.
* Build a ranking system on a dashboard that can produce reports. This will help in tracking the school’s down to its student’s performance.

# **EXPECTED OUTCOME**

Once it is implemented, the system will be beneficial to its end-users namely regional directors, district superintendents, schools et cetera. The intermediate benefits are as following: (1) Improved access and data availability to academic performance (2) Improved exam assessment (3) Reduced errors in administering un-centralized exams (4) Improved accuracy and reliability of exam results (5) Reduced time to prepare reports.

# **SYSTEM DIAGRAMS AND TABLES**

## Context Level Diagram

A close up of a map

Description generated with high confidence

*Moodle*

A screenshot of a cell phone

Description generated with very high confidence

*OMR*

## Organizational Chart of Program Modules

## Data Flow Diagram

A screenshot of a social media post

Description generated with very high confidence

## Entity Relationship Diagram

## Database Structure / Data Tables

## Data Dictionary

## Screenshots per Module

# **SOURCE CODE LISTINGS**

# **REFERENCES**

(Software Analysis & Design Tools, 2018)