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# Student Performance Evaluation System Web Application

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**Abstract:**
Nowadays most of the education system practice online learning mechanism rather than using the traditional teacher centered coaching mechanism to enhance the learning ability of the learners by making a student-centered learning. The tutors must analyze the learner's achievement. Student evaluation system is a web application they mainly focuses to providing the academic result to the learner. The learner gets their respective result of that semester. The learner can access their report through a web application is more convenient and the faculty can easily analyze the evaluation of learner. It is divided into three modules- Student, Faculty and Administrator. The learner using his login credentials view report similarly faculty using their login credentials evaluate learners respectively. The administrator can add new in faculty and learner's sections, it can also add new subjects, classes as per the sessions.

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## 1. INTRODUCTION :

Students are the main asset for various universities. Universities and learner's play an important role in producing graduates of high qualities with its academic achievement. Academic achievement is the level of achievement of the learner's educational goal that can be measured and tested through examination, assessments and other form of measurements. However, the academic achievement varies as various kind of learners may have different level of academic achievement. The learner academic is usually stored in student management system, in various formats such as files, document, records, images and other formats. These available learner's data could be extracted to produce useful information. However, the increasing amount of learners data becomes hard to be analyzed by using traditional statistic techniques and database management tools . Thus, a tool is necessary for universities to extract the useful information. This useful data could be used to predict the learner's performance. Currently, in University Malaysia Sarawak (UNIMAS), even though there is Intelligent Mining and Decision Support System (In minds) that is able to view learner performance, it is limited only to top management such as method that combines Deans and Deputy Deans of Undergraduate and Student Development due to its privacies setting. The tutors, who are not part of top management, do not have the permission to view the learner's performance. Presently, tutors seek for learner's data manually, from learner's files and records, without aid from automated system. Thus, it is a hurdle for each tutors to retrieve information of their learner's data throughout the semesters. The proposed system allows lecturers to retrieve the learner's previous result in courses and increase the understanding of factors that contribute to learner's performances in present courses taken by learner's.

There are a few goals that are identified during the improvement of this system:

1. To improve a system for learner's performance analysis.
2. Identify the factors that affect the learner's performance in course
3. To assist tutors in keeping track of the learner's progress throughout the semester.

## 2. LITERATURE REVIEW :

A background study is done to review similar existing systems used to perform student performance analysis. Three existing system are chosen because these systems are similar to the proposed system.

A. Faculty Support System (FSS) Shana and Venkatacalam has proposed a framework named Faculty Support System (FSS) which is low in cost as it uses cost effective open source analysis software, WEKA to evaluate the learner's performance in a course offered by Coimbatore Institute of Technology of Anna University . FSS is able to analyze the learner's data dynamically as it is able to update of learner's data dynamically with the flow of time to create or add a new rule. The update of new rule is possible with the help from domain expert and the rule is determined by data mining technique such as classification technique. Classification technique is used to predict the learner's performance. Besides, FSS focus on the identification of factors that contribute to performance of learner's in a specific course.

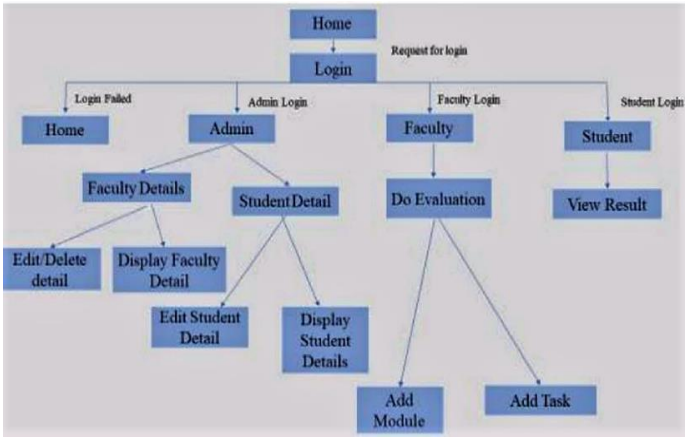
B. Student Performance analyzer (SPA) SPA is existing secure virtual web-based software that allows educators to view the learner's performance and keep track of the school's data. The SPA is a tool designed for analyzing, displaying, storing, and getting feedback of student assessment data. It is a powerful analyzer tool used by schools worldwide to perform analysis and displays the analysis data once raw student data is uploaded to the system. The analysis is done by tracking the learner or class to get the overall performance of learner or class. It helps to identify the learner's performance which is below the expected level, at expected level or above the expected level. This would allow the educators or staffs to identify the current learner's performance easily. Other than that, it enables various kinds of learner's performance report such as progress report and achievement report to be generated.

C. Intelligent Mining and Decision Support System (In Minds) In Minds helps University Malaysia Sarawak (UNIMAS) to monitor the performance of various areas in every UNIMAS's departments [2]. The system enables top and mid-management in UNIMAS to have a clear look on the areas that needed attention by looking at the figures, revenues and risks. The features, ease of use and flexibility provided by the system makes the performance analysis in UNIMAS to be performed in an ideal solution. Charts are provided by the system for ease of student performance's interpretation. From the reviews on these existing systems, useful techniques and features could be applied into the proposed system for a better system performance. The WEKA is chosen as a tool for data mining because it is open source software.

## 3. PROPOSED SYSTEM ARCHITECTURE :

There are a few features from the existing systems that are employed during the design and implementation phase of the proposed system. These features and functionalities include the user interface, learner's performance prediction, illustration displays and report generation. A good user interface provides an user-friendly interface as it is easy to be navigate and not complicated. Meanwhile, the learner's performance prediction is included into the proposed system to make sure the objectives are achieved.

The proposed system architecture is designed as shown in below:




i. Able to help lecturers to automatically predict learner's performance in course.

ii. Able to keep track and retrieve learner's performance in a particular course and semester.

iii. Able to view the factors that affect the learner's prediction result iv. Able to generate learner's reports.

intercorrelations. To assess the presence of a GFP, this study looked at the internal between the five personality traits Le, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism. The meta-analysis provides evidence for GFP at the highest operational level and this paper concluded that the GFP features a major factor because it's linked to supervisor-rated job performance.

## 4. WORKFLOW OF SYSTEM:

1. Users (teachers, learner's, administrators) access the web application through their respective Interface authenticating themselves securely.

2. Teachers input assessment data and interact with analytics tools to monitor student performance.

3. learner's log in to view their performance, receive feedback, and access learning resources.

4. Administrators manage user accounts, system configurations, and integration with the LMS if applicable.

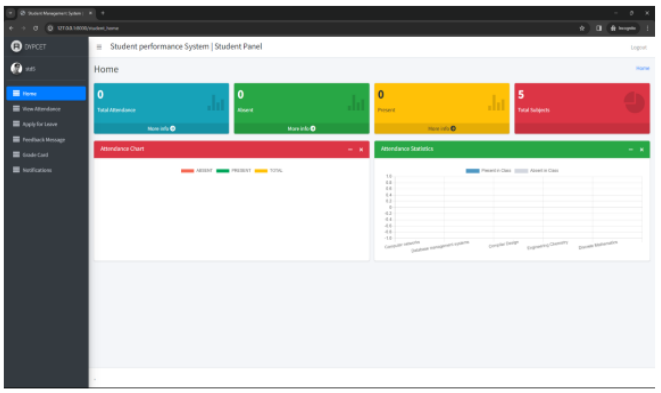
5. Data is securely stored and retrieved from the database layer, ensuring data integrity and privacy.

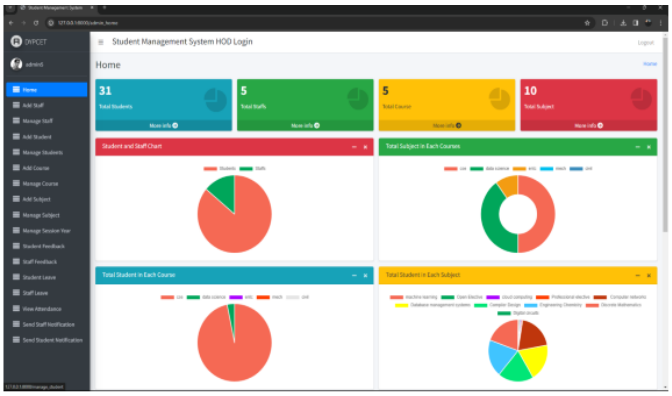
## 5. PROBLEM and DATA UNDERSTANDING:

The problem and data understanding is critical in determining the success of the Student Performance Analysis system. Before the system development, problems and data understanding is identified to define the project goal and objectives. The problems of the existing systems are identified and analyzed for its effectiveness and efficiency in term of functionality. After the problems are identified, the solutions to solve each problem is identified and collected through more reading and studying on the related research papers. The hardware requirement in this phase is a computer for analysis and design. Technology Description are as followed :

1. HTML
2. CSS
3. JAVASCRIPT
4. DJANGO FLASK
5. MYSQL
6. XAMPP
7. WEBSERVER:APACHE.

## 6. IMPLEMENTATION RESULT:




## 7. CONCLUSION:

In conclusion, the project concentrates on the improvement of a system for student performance analysis**.** Student Evaluation System is an internet web site and may be used at any place, any time and by any student or college. This application can avoid the calculation and alter the method of visualizing results by students as well as faculty.

## 8. REFERENCE:

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