

# STUDENT PERFORMANCE ANALYSIS SYSTEM

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**Abstract** - In today's world technology has reached to extent that it can be used to do various task in day-to-day life easily with less effort and time. World today has realized importance of education in one's life which has led to revolution in field of education. Universities, colleges, schools today have loads of task to be completed in given timeline. In today's scenario colleges needs to analyze student performance manually which takes a lot of time and effort by faculties working on it. Hence in order to simplify this task a web-based system is introduced which can perform student performance analysis system. Student Performance Analysis System provides a interface for school maintenance. It can used by educational institutes or coaching classes to analyze the student performance easily.

**Key Words:** Analysis, HTML, CSS, PHP, JavaScript, graph, Student performance analysis system.

## 1. INTRODUCTION

Student Performance with Graph & Academic Project Work Reporting System is a web-based application developed using Java, HTML, and MySQL Database. This application provides an easy way to student in searching the details of projects and details of their academic attendance and marks percentage details with graph. Students can search the projects with project title or with guide name or with the year. All the details of the projects and details of student's attendance and marks percentages are added by admin.

This student performance analysis system provides an easy way to students in searching the details of projects, academic attendance report and marks/percentage details the with graph. Students can search the projects with project title or using guide name or with the academic year. All the details of the projects and details of student's attendance and marks are added by the Teachers and HODs. It has 3 Modules namely Student, Teacher and HOD. Students are asked to register and then login, fills the academic details, view projects, view attendance, marks in graph-based format, events and notice. Teachers can login, approve students, add students' marks, upload attendance, add Project details, view assigned events and notice. HOD can login, manage teachers report, events, they can view Attendance and academic details and manage notice.

## 2. PROBLEM STATEMENT

Implement the bootstrap, HTML, CSS, JavaScript for the formation of an application which is used by students & teachers to represent & analyze their performance monthly, yearly basis in the tabular form & graph. The goal of online student performance analysis system is to develop software produce high quality software. For any school, college or other educational institute, students are an important asset in order to of great quality who excel in academics, practical knowledge, self-development and innovative thinking. To achieve this, it is become essential for every school, college or any other educational institute to analyze the performance of students. Academic performance (AP) can be measured by conducting various examinations, assessments and other form of measurements. Managing the grades of an entire class in its learning makes the grading process easier, and the teachers have a clearly-set-out overview.

## 3. EXISTING SYSTEM

In the existing system, all the student information is added manually and the data is stored in the records. Takes a lot of time and physical effort in searching and adding the information. In the existing system, there is a possibility of losing data and no proper maintenance of data. The use of linear search in file handling might increase time complexity.

## 4. LITERATURE SURVEY

The features of the existing system are including a user login creator to provide user interface, student performance analyzer, student development card, achieved credit, passing criteria card and wise student performance attribute card.

### 4.1 Web Based Student Information Management

The design and implementation of a comprehensive student information system and user interface is to replace the current paper records College Staff are able to directly access all aspects of a student's academic progress through a secure, online interface embedded in the college's website. The system utilizes user authentication, displaying only information necessary for an individual's duties. Additionally, each subsystem has authentication allowing authorized users to create or update information in that subsystem. All data is thoroughly reviewed and validated on the

server before actual record alteration occurs. In addition to a staff user interface, the system plans for student user interface, allowing users to access information and submit requests online thus reducing processing time. All data is stored securely on SQL servers managed by the college administrator and ensures highest possible level of security. The system features a complex logging system to track all users access and ensure conformity to data access guidelines and is expected to increase the efficiency of the college's record management thereby decreasing the work hours needed to access and deliver student records to users.

#### 4.2 Objectives:

Providing the online interface for students, faculty etc. Increasing the efficiency of school record management. Decrease time required to access and deliver student records. To make the system more secure. Decrease time spent on non-value-added tasks.

#### 4.3 Functional Requirements:

Student information management system aims to improve the efficiency of college information management, and the main function is managing and maintaining information. It will be ensured that the information entered is of the correct format.

#### 4.4 Performance Requirements:

The proposed system that we are going to develop will be used as the chief performance system for helping the organization in managing the whole database of the student studying in the organization. Therefore, it is expected that the database would perform functionally all the requirements that are specified.

#### 4.5 Safety Requirements:

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

### 5. PROPOSED SYSTEM

The proposed system provides the student an easy and accurate data about projects and academic percentages. Students can view all the information in just one click which saves a lot of time and effort. The proposed system maintains a database to store all the information. In this system, there is no chance of losing data. Adding and searching the information is very easy which does not take much time and physical effort. The system comprises of 3 major modules with their sub-modules as follows:

#### 1] Student

- **Register:** Student can register and obtain credentials.
- **Login:** student can login using credentials.
- **Profiling and Academic Details:** Student can fill his personal details and academic details.

- **View Projects:** Students can view the projects.
- **View Attendance & Academic Marks:** Students can view the attendance and marks on the graph basis.
- **View Events:** Students can view the events held or going to held.
- **View Notice:** students can also see the notice.

#### 2] Teacher

- **Login:** Teachers can login into the website using credentials.
- **Approve Students:** They can approve the students.
- **Add Students Marks:** They can also add the student's academic marks.
- **Upload Attendance:** They can upload attendance of students.
- **Add Project Details:** They can also add project details.
- **View Assigned Events:** They can see the assigned events.
- **View Notice:** They can also view the notice.

#### 3] HOD

- **Login:** HOD can login using credentials.
- **Manage Teacher:** HOD can manage teachers.
- **Manage Event:** HOD can allocate event to the students.
- **View Attendance & Academic Details:** HOD can see attendance and academic details of the students.
- **Manage Notice:** HOD can manage notice.

Authorized administration, exam section and other faculty members are assigned with the username and password to access the Student Performance Analysis System.

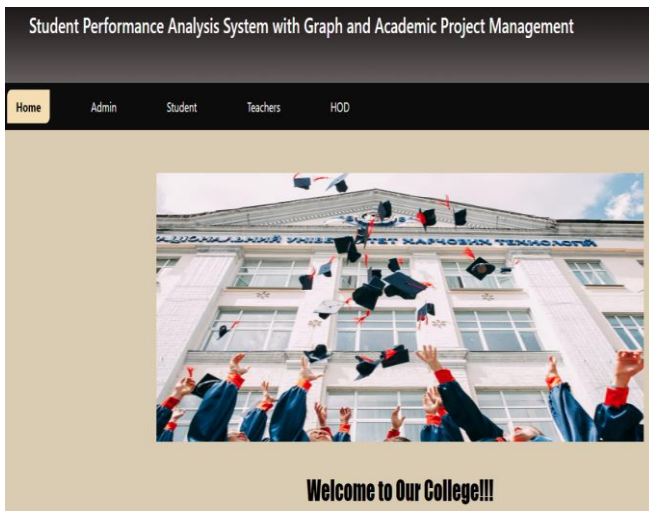


Fig - 1: Home Page

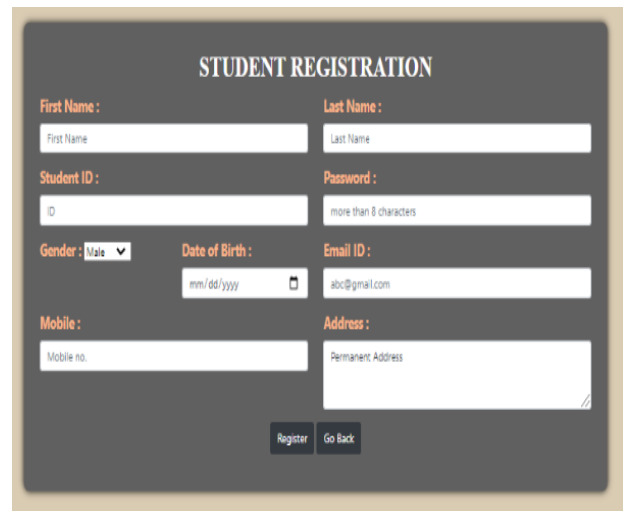


Fig - 4: Student Registration Page

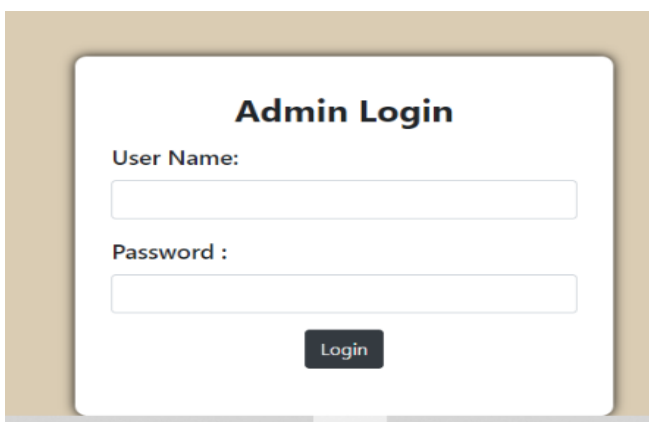


Fig - 2: Admin Login Page

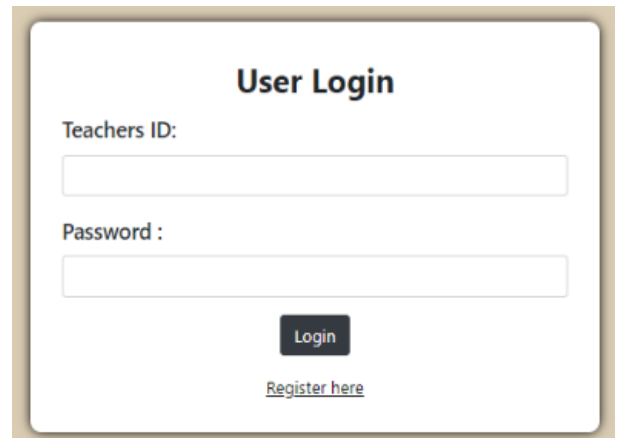


Fig - 5: Teacher's Login Page

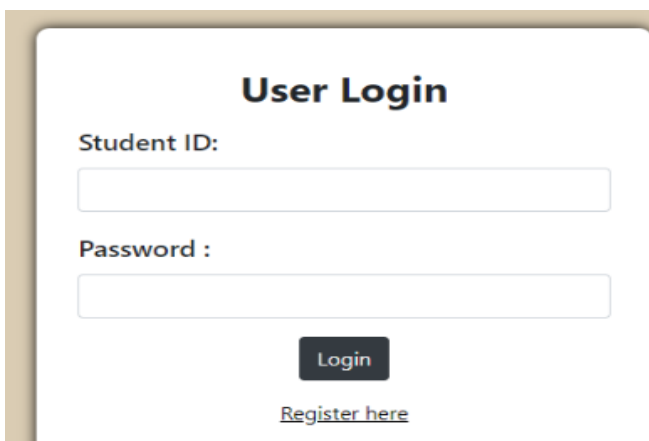


Fig - 3: Student Login Page

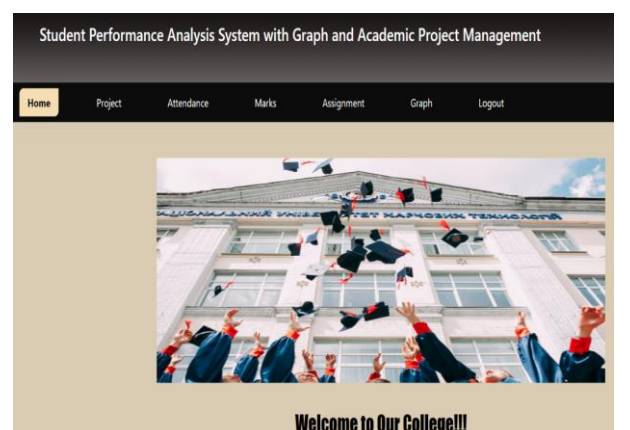


Fig - 6: Student's Home Page

## 6. PROJECT FLOW DIAGRAM

Login authority is to administration section, to exam section. and the faculty who are dealing with the student performance in an institution. The Student Performance Analysis system is the system online based for the managing the record of result of each and every student. If needed the system will generate the emails to their respective parents for the improvement of the student needed.

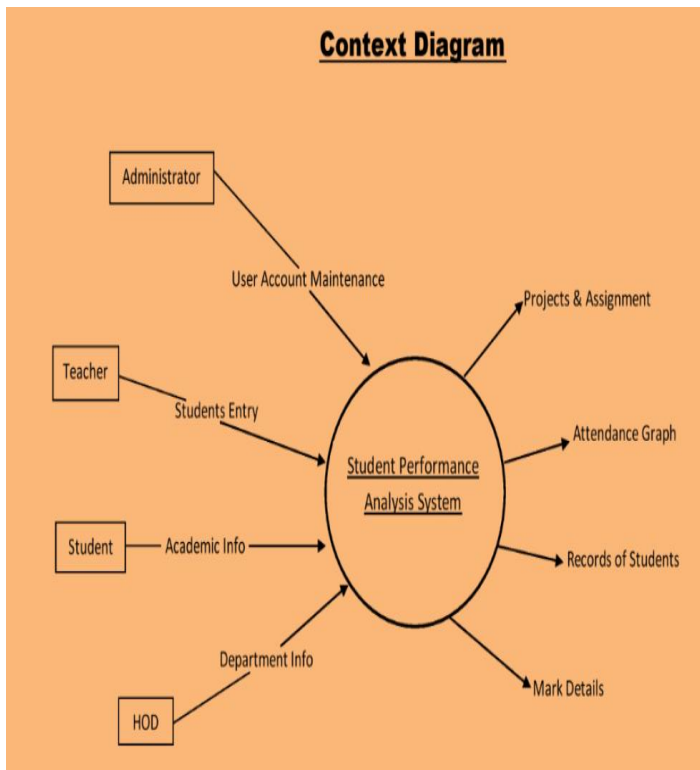


Fig - 7: Context diagram for overall system

Fig-7 illustrates the high-level view of the system. The relation between user and system is shown in the figure. Student Performance Analysis is our system which is accessed by administrator to give authorities to lower user(faculties). Teacher uses the system for uploading student's Performance. Student views their marks, Attendance, Assignment, Project, Notices, etc. Administrator who is higher authorities needs to know the overall report of student's Performance. It is demonstrated in system by graphical representation of data in system.

Fig-8 gives overall view of the system functionalities. It also shows the relationship between different modules of the system. Viewing user case diagram use of the system can be clearly demonstrated. The three user of the system accesses the system modules according to the privileges provided to them by administrator.

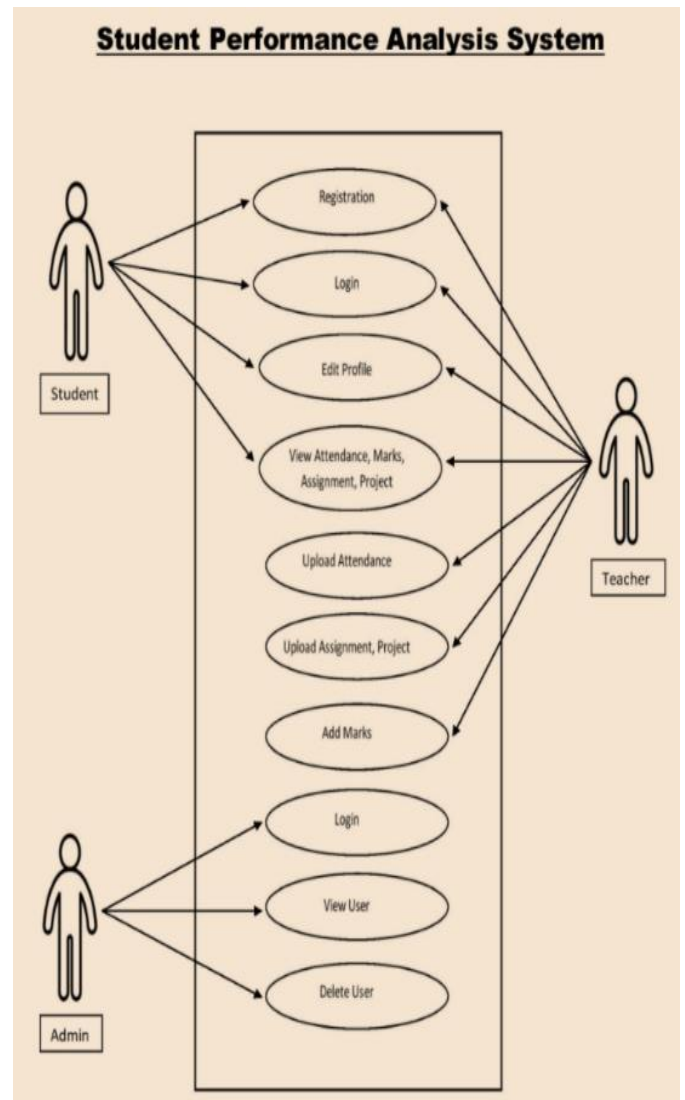


Fig - 8: User Case diagram for overall system

## 7. IMPLEMENTATION

We developed a website to analyze and generate report of students based on the curriculum that represents student's academic performance. We have developed the system such that, it will automatically parse data onto the database from excel file, which will in return reduce time consumption of analysis of data. For these we used HTML, CSS, PHP, my SQL and java script. After teacher logs into system, data is been fetched dynamically through the database. For here, parsing is done using PHP Excel. It is an inbuilt library for PHP to fetch data from excel files over or within network. We hope to accelerate the analysis by developing the analysis system. It provides assistance to teachers and administrator to track record of each student, subject and department by using various techniques such sort.

The system is developed based on following languages:

1. HTML: at front end.
2. SQL server: as a database language.
3. PHP, JavaScript: for validation and scripting.

Algorithm working of the system:

1. Upload the excel file of student's marks.
2. Internal calculation (system logic):
3. Display of analysis.

## 8. FUTURE SCOPE

Previously, data used to be inserted manually to analyze result. But Currently the project supports excel(.xlsx) files for extraction of data. The future scope is that data can be fetched, parsed in other formats like doc, csv, odt, etc. Visualization can be provided to represent data in graphical format. Various representation like pie chart, graph, etc.

## 9. CONCLUSION

The goal of the system is achieved and difficulties are solved. "Student Performance with Graph & Academic Project Work Reporting System" Java project satisfies all the requirements of students in searching the projects and finding details about his\her attendance and marks. This project also satisfies the requirement of admin in adding all the details of the project and he can easily find the progress of student's attendance and marks.

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