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STUDENT PERFORMANCE EVALUATION SYSTEM

[1]Chinthala Shivani, [2]Dr.Attili Venkat Ramana, [3]Divin Burma

[1]Ug Scholar, [2]Associate Professor, [3]Ug Scholar
[1]CSE(Data Science),
[1]Geethanjali College of Engineering And Technology,Hyderabad,India

Abstract : The Student Performance Evaluation System in Academics and Extracurricular Project is a pioneering system designed to offer a holistic assessment of students' capabilities by integrating academic performance evaluation with a sophisticated mechanism for analyzing extra-curricular participation. Utilizing data analytics and machine learning algorithms, System assesses academic performance, identifying strengths and areas for improvement, while also tracking and evaluating participation in extra-curricular projects, clubs, and events. By providing educators and students with a comprehensive overview of both academic and non-academic achievements, System fosters a nuanced understanding of students' capabilities, enabling personalized academic support and recognition of overall growth and development. The project aims to contribute to informed decision-making processes for academic and career development, thereby creating a more dynamic and responsive educational environment

IndexTerms - Student Performance,Extracurricular,holistic assessment,data analytics,machine learning algorithms

1.INTRODUCTION

The Student Performance Evaluation in Academics and Extracurricular Project represents a pioneering initiative aimed at comprehensively assessing and analyzing students' holistic development within educational institutions. By seamlessly integrating academic performance evaluation with a mechanism for tracking extracurricular activities, this project offers a comprehensive understanding of each student's capabilities. At its core, advanced data analytics and machine learning algorithms are employed to evaluate students' academic performance. However, this assessment extends beyond mere performance and assignment tracking, encompassing a dedicated module for monitoring and assessing students' participation in extracurricular projects, clubs, and events. This inclusive approach acknowledges the significance of non-academic participation in shaping students' overall growth and development. Ultimately, the project strives to create a more dynamic and responsive educational environment that recognizes and encourages students' growth beyond traditional classroom boundaries. By promoting a well-rounded educational experience, the Student Performance Evaluation paves the way for personalized support in education.

1.2 Objective

The Objective of the Student Performance Evaluation in Academics and Extracurricular project is to comprehensively assess and analyze student's development in educational institutions.By integrating academic performance with extracurricular activities.The project aims at providing a Interface where the educator and student can interact where the attendance of the student can be taken and assignment can be assigned and the student can have the academic performance evaluated and identify the weakness and areas of improvement

1.3 Scope of Project

This system will track, maintain, and manage all student-related data,including grades, attendance, and extracurricular activities records. It will provide a centralized platform for efficient data organization and easy access for teachers and students. Additionally, the system will assign unique IDs to students, enabling quick tracking of assignments, exam results, grades, and attendance information. The project aims to streamline administrative tasks, enhance transparency, and facilitate informed decision-making to improve overall student management and educational outcomes.

2. LITERATURE SURVEY

The literature survey encompasses a range of studies that delve into the complexities surrounding Analyzing Student Performance using machine learning Techniques such as ID3and C4.5 to analyze and evaluate the performance. This was done by aditya Gaykar and rohit jha and published the paper in 2013 october.The accuracy achieved in this Analysis the accuracy achieved was seventy five percent .In 2022 the Student result were analyzed using various machine learning algorithms and the performance of these student were evaluated and to decide where the student is in decline or is improving.This was done by Rosemary Vargheese and Adlene Peraira they used Svm Algorithm to analyze the result and evaluated the performance

In 2018 Jayalakshmi Indiresan conducted research on Impact of Extracurricular Participation on Student Academic Performance Paper investigates the relationship between students' participation in extracurricular activities and their academic performance. Using statistical analysis and survey data, the study examines whether involvement in clubs, sports, and community service correlates with higher grades, improved attendance, and overall academic success.

In 2019 ,Palak Patel, Tejas Thakkar conducted research on paper discussing the ethical and privacy implications of collecting and analyzing student data in evaluation projects. Drawing on ethical frameworks and case studies, the study explores how educators and researchers can navigate the tension between promoting educational outcomes and safeguarding student privacy rights, offering practical recommendations for responsible data use and management.

Student performance evaluation and analysis is a necessary task for improving students' quality nowadays. The main aim of this research is to analyze students' performance during the COVID-19 pandemic. The impact of the COVID-19 pandemic has been extensive, affecting the education sector in India as well as worldwide. In an attempt to reduce the spread of COVID-19, the government decided to temporarily close educational institutions. In response to schools and colleges closures, efforts have been made to adapt to remote learning and online education platforms. These changes have brought about significant shifts in teaching methods, student engagement, and assessment practices. Therefore, it is crucial to assess the impact of these changes on student performance and academic outcomes

3.OVERVIEW OF THE SYSTEM

3.1Existing System
The current system for evaluating student performance in academics and extracurricular activities is often fragmented and lacks comprehensive analysis. While academic performance is typically assessed through traditional methods such as grades and test scores, tracking extracurricular participation and its impact on overall development is often overlooked. Without a unified system in place, educators and stakeholders may struggle to gain a holistic understanding of students' capabilities and needs.Moreover, existing systems may not leverage advanced technologies like data analytics and machine learning algorithms to provide deeper insights into student performance. As a result, opportunities for personalized support and tailored guidance may be missed, hindering students' academic and personal growth.
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3.2 Proposed System
An online student portal serves as a centralized platform that offers students convenient access to academic resources and administrative services. Typically hosted on university or educational institution websites, these portals provide students with a range of features, including course registration, grade tracking, class schedules, and communication tools. Students can view and download study materials, submit assignments, and communicate with professors and peers. Additionally, student portals often facilitate administrative tasks such as exam schedules, extra curricular and degree progress tracking. The goal is to streamline communication, enhance accessibility to educational resources, and empower students to manage their academic journey efficiently. These portals contribute to a more connected and technologically integrated learning experience for students in today's digital age.

3.3 Module Description

The architecture of the system comprises three distinct modules, each serving a specific purpose:

User Interface:This module is responsible for the user interface of the system. It includes components such as web pages, forms, and interactive elements. Features within this module enable users to access student records, track attendance, and input/update student data. Dashboards are provided for convenient navigation and management of student-related information.

Data Management Module:The data management module handles the storage, retrieval, and manipulation of student-related data. It utilizes database management systems like MySQL to store various types of information, including student records, attendance data, grades, and other academic details. This module ensures efficient organization and accessibility of data for the system's functionalities.

Functional Module:The functional module encompasses the core functionalities of the system related to student performance management. It includes features such as attendance management, performance analysis, and generation of performance reports. This module plays a crucial role in evaluating and monitoring student performance, providing insights to educators and stakeholders for informed decision-making.

3.4 System Architecture

The system employs a client-server architecture, with the client-side interfacing via a web-based application. This application manages data storage, retrieval, and processing, utilizing a layered architecture. Clients interact with the web-based application, which retrieves data such as attendance, student performance, and deadlines from the database. This modular design enhances scalability, maintainability, and efficiency in handling user interactions and data management tasks.
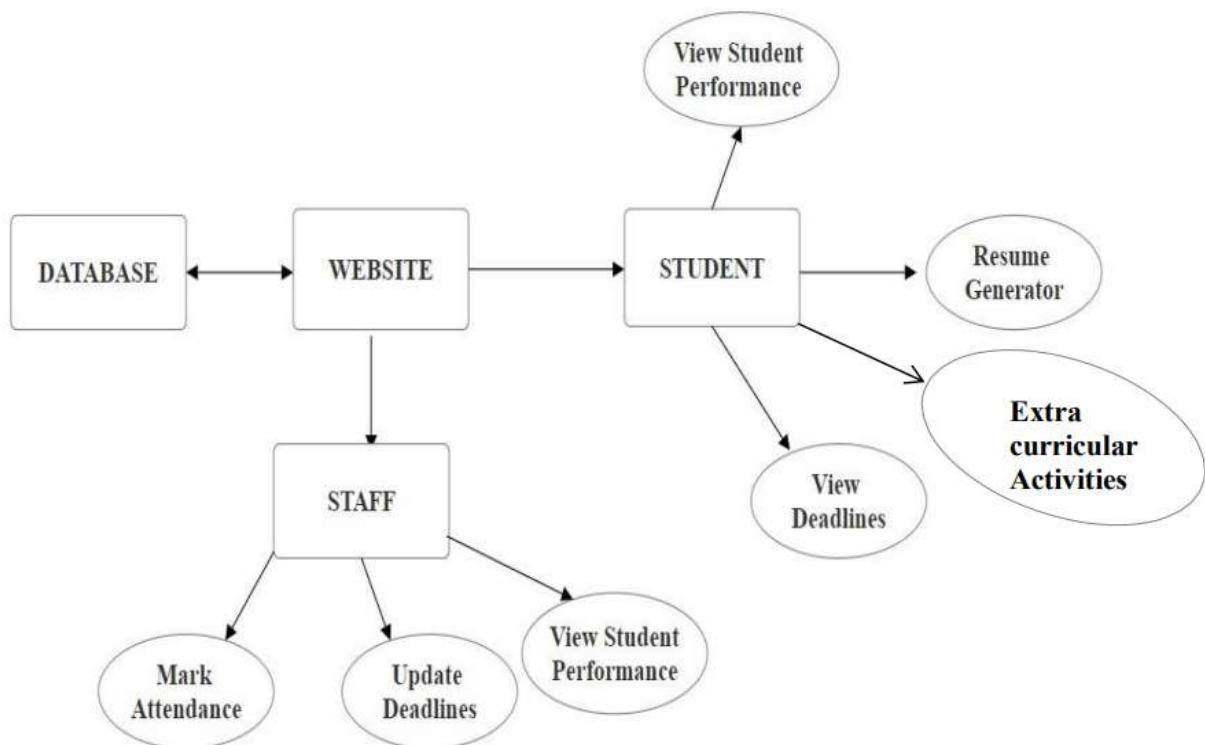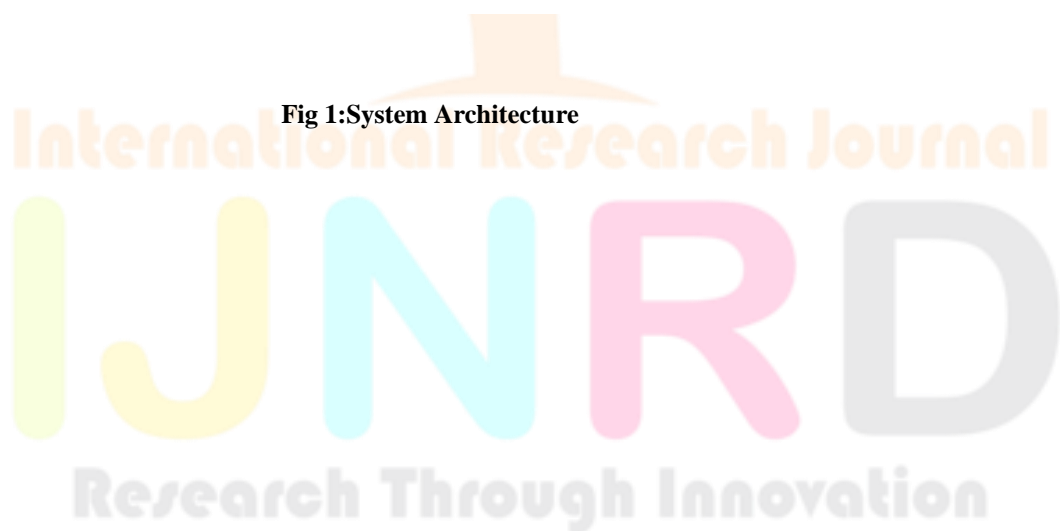

Fig 1:System Architecture

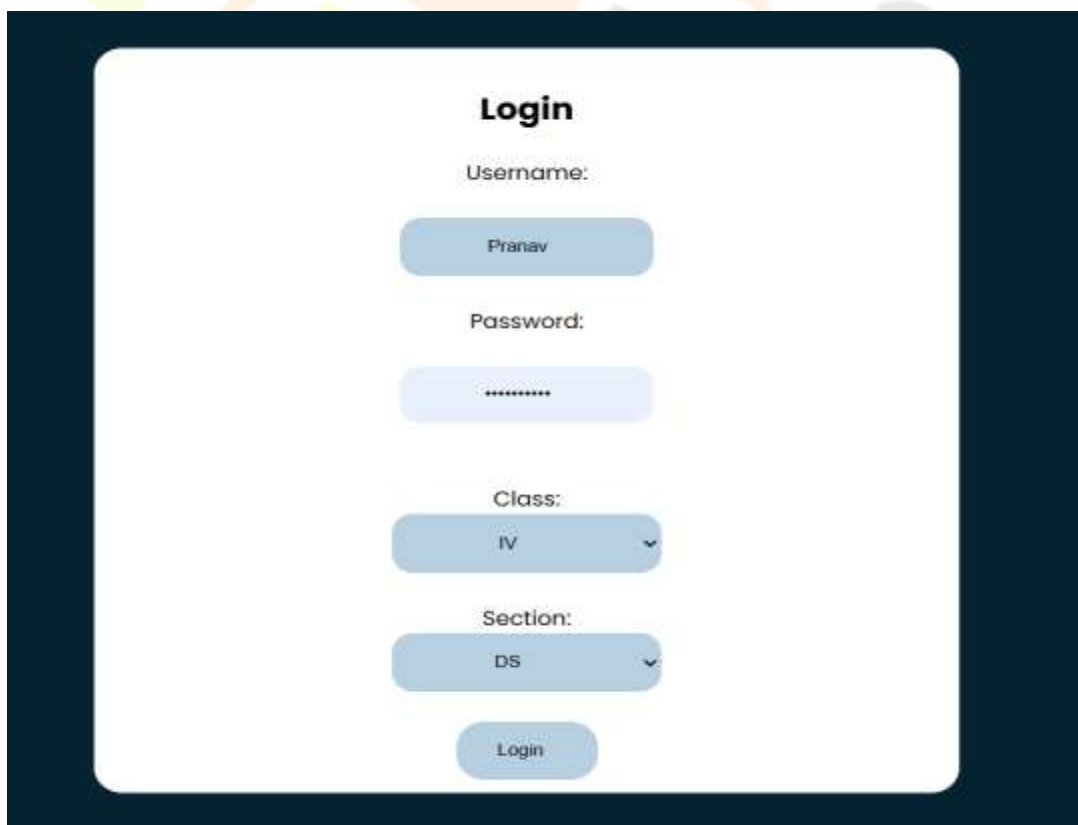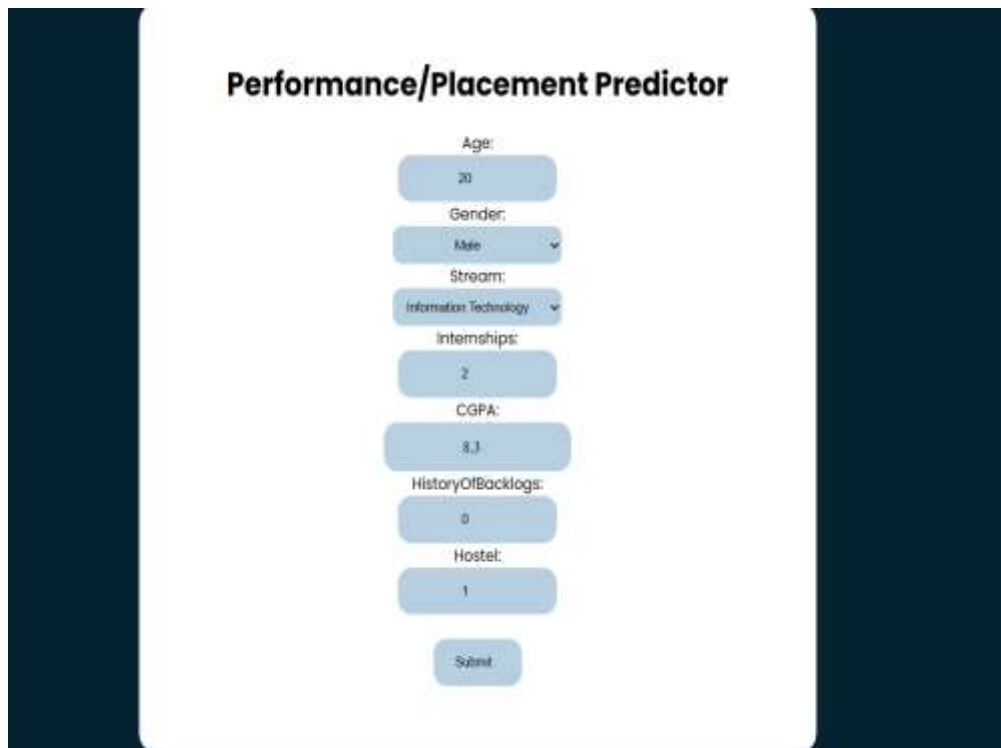**4.OUTPUT SCREEN/RESULT**

Fig 2:Home Page

Fig 3 :Web login

Fig 4 : **Performance Evaluator**

Fig 5:**Output**

5.CONCLUSION

In conclusion, the Student Performance System represents a significant advancement in educational technology, offering a comprehensive solution to track, manage, and analyze student-related data in schools and colleges. By integrating functionalities such as grading, attendance tracking, and extracurricular activities management into a unified platform, the system streamlines administrative tasks and enhances data accessibility and accuracy. The unique ID assigned to each student enables quick and efficient tracking of assignments, exam results, grades, and attendance information, benefiting both teachers and students alike.. Real-time access to student performance data empowers educators to make informed decisions, provide timely support, and personalize learning experiences to meet individual student needs.

Additionally, the system's reporting and analytics functionalities enable educators and administrators to gain valuable insights into student performance trends and areas for improvement, ultimately enhancing educational outcomes.Overall, the Student Performance Monitoring System represents a paradigm shift in how student data is managed and utilized in educational settings. the system creates a more efficient, transparent, and data-driven educational environment. As educational institutions continue to adapt to evolving challenges and opportunities, the Student Performance Monitoring System stands as a beacon of innovation, empowering educators to support student success and foster a culture of continuous improvement

6. FUTURE ENHANCEMENT

Future enhancements of the Student Performance Monitoring System could include incorporating advanced analytics techniques such as predictive modeling and sentiment analysis to anticipate student performance trends and identify potential areas for intervention. Additionally, the integration of machine learning algorithms could enable the system to provide personalized recommendations for academic support based on individual student profiles and learning styles. Enhanced data visualization capabilities could offer stakeholders intuitive insights into student progress and engagement, facilitating data-driven decision-making. Furthermore, expanding the system's communication module to include features such as automated notifications and parent portals could strengthen the collaboration between educators, students, and parents, fostering a more supportive and engaged educational community. Overall, these enhancements would further enhance the system's effectiveness in promoting student success and improving educational outcomes.

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