AMERICAN JOURNAL OF MANAGEMENT AND IOT MEDICAL COMPUTING
Peer Reviewed, Referred & Indexed Journal
E-ISSN: 3069-0110
Vol.5, No.3 (2026)
www.ajmimc.com

STUDENT PORTAL

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ABSTRACT

The **Student Portal** is a comprehensive web-based application designed to simplify and automate academic and administrative activities within educational institutions. Traditional methods of managing student records, attendance, course registration, assignments, examination results, and communication often rely on manual processes, which are time-consuming, prone to errors, and difficult to maintain. The proposed Student Portal provides a centralized digital platform that enables students, faculty, and administrators to access and manage academic information efficiently.

The system offers role-based access, allowing students to view their profiles, course details, attendance records, assignment submissions, examination schedules, results, fee status, and important announcements. Faculty members can manage attendance, upload study materials, assign coursework, evaluate student performance, and publish results. Administrators are provided with tools to manage student enrollment, academic records, user accounts, and institutional notifications. Secure authentication and database management ensure data confidentiality, integrity, and accessibility.

The portal is developed using modern web technologies with a responsive user interface, enabling access from desktops, tablets, and smartphones. By automating routine administrative tasks, the system reduces paperwork, minimizes human errors, improves communication among stakeholders, and enhances overall operational efficiency. Furthermore, the Student Portal provides real-time access to academic information, helping students monitor their progress and enabling faculty to make informed academic decisions.

Overall, the proposed Student Portal contributes to the digital transformation of educational institutions by providing a secure, reliable, scalable, and user-friendly platform for academic management, thereby improving the quality of educational services and student engagement

Keywords: Student Portal, Academic Management System, Student Information System, Web-Based Application, Attendance Management, Course Registration, Examination Management, Assignment Submission, Role-Based Access Control, Database Management, Educational Technology, Digital Campus, Secure Authentication.

I. INTRODUCTION

The rapid advancement of Information and Communication Technology (ICT) has transformed the education sector by enabling institutions to automate academic and administrative processes. Educational institutions generate and manage a large volume of student-related information, including personal details, course registrations, attendance records, assignments, examination schedules, grades, fee payments, and academic notifications. Managing this information manually is often time-consuming, error-prone, and inefficient, especially as the number of students and academic programs increases. Therefore, there is a growing need for an integrated digital solution that can streamline these operations and improve communication among students, faculty, and administrators.

A **Student Portal** is a web-based application that serves as a centralized platform for managing academic and administrative activities within an educational institution. It provides secure access to information and services based on user roles. Students can log in to view their academic profiles, register for courses, monitor attendance, submit assignments, access study materials, check

examination schedules, view results, and receive important announcements. Faculty members can efficiently manage attendance, upload learning resources, assign coursework, evaluate student performance, and publish examination results. Administrators can oversee student admissions, maintain academic records, manage user accounts, and monitor institutional activities from a single platform.

The proposed Student Portal aims to replace traditional paper-based and standalone systems with a unified online solution that improves efficiency, accuracy, transparency, and accessibility. The system incorporates secure authentication, role-based access control, centralized database management, and real-time information updates to ensure reliable and authorized access to institutional data. Its responsive design allows users to access the portal from desktops, laptops, tablets, and mobile devices, making academic services available anytime and anywhere.

In addition to improving administrative efficiency, the Student Portal enhances the overall learning experience by promoting effective communication between students and faculty. Instant notifications, online assignment submission, digital study materials, and real-time academic progress tracking enable students to stay informed and actively participate in their educational journey. Faculty members benefit from reduced administrative workload and improved data management, allowing them to focus more on teaching and student development.

The implementation of a Student Portal also supports the digital transformation initiatives of educational institutions by reducing paperwork, minimizing manual errors, improving data security, and facilitating faster decision-making through centralized information management. The system can be further extended with advanced technologies such as cloud computing, artificial intelligence, predictive analytics, online examination modules, and mobile applications to provide more intelligent and personalized educational services.

Overall, the Student Portal offers a comprehensive, scalable, and user-friendly solution that modernizes academic management processes. It strengthens collaboration among students, faculty, and administrators while ensuring efficient management of institutional resources. As educational institutions continue to embrace digital technologies, the Student Portal serves as a vital component in delivering high-quality, transparent, and accessible educational services.

The education sector has witnessed significant technological advancements over the past decade, with educational institutions increasingly adopting digital solutions to improve the quality of teaching, learning, and administration. Traditional methods of managing academic records and student-related activities involve extensive paperwork, manual record keeping, and separate software systems, making the overall process inefficient and difficult to maintain. As institutions continue to expand in terms of student enrollment, academic programs, and administrative responsibilities, the need for a centralized, secure, and intelligent academic management system has become essential.

A Student Portal is an integrated web-based application that enables educational institutions to manage academic and administrative operations through a single digital platform. It acts as a bridge between students, faculty members, and administrators by providing real-time access to academic information and institutional services. The portal eliminates the limitations of manual systems by offering online access to student records, attendance, assignments, examination details, fee information, academic calendars, and institutional announcements.

EXISTING SYSTEM

Most educational institutions continue to manage academic and administrative activities using either manual methods or isolated software applications. Student information such as admission records, attendance,

examination schedules, assignments, fee payments, and academic performance is often maintained in separate registers, spreadsheets, or standalone desktop applications. Since these systems are not interconnected, users frequently encounter delays in accessing information, inconsistencies in data, and increased administrative workload.

In many colleges and universities, students must visit different departments to obtain information related to attendance, examination results, fee status, course registration, and academic notifications. Faculty members manually maintain attendance registers, prepare internal assessment records, evaluate assignments, and publish results. Administrative staff are responsible for maintaining student records, generating reports, updating databases, and responding to numerous student queries. These activities consume significant time and effort while increasing the possibility of human errors.

Although some institutions have implemented partial automation, many existing solutions focus only on specific functions such as attendance management, examination processing, or fee management. These independent systems often lack integration, making it difficult to share information between departments. As a result, data duplication, inconsistent records, and communication gaps become common challenges.

Another limitation of existing systems is the lack of real-time access to academic information. Students often have to wait for faculty or administrative staff to update records before they can obtain information regarding attendance, examination schedules, internal marks, or assignment status. Similarly, faculty members experience delays in accessing consolidated student records required for academic evaluation and advising.

Security is another major concern in traditional systems. Manual record keeping and unsecured digital storage increase the risk of data loss, unauthorized access, accidental modifications, and document misplacement. Backup mechanisms are often inadequate, making recovery difficult in the event of hardware failures or accidental deletion.

Communication between students, faculty, and administrators is generally carried out through notice boards, emails, messaging applications, or verbal announcements. Since these communication methods are not integrated with the academic management system, students may miss important updates regarding examinations, assignment deadlines, timetable changes, workshops, seminars, or fee payment schedules.

Furthermore, manual report generation requires considerable effort. Administrative staff spend significant time preparing attendance summaries, examination reports, fee collection reports, and academic performance statistics. These reports are often generated using spreadsheet software, increasing the likelihood of computational errors and inconsistencies.

The increasing number of students, courses, and academic activities further complicates the management process. Traditional systems struggle to scale efficiently, leading to reduced productivity, delayed decision-making, and poor user experience. As educational institutions continue to expand, the limitations of existing academic management systems become more evident.

LIMITATIONS OF THE EXISTING SYSTEM

The existing student management approaches suffer from several technical and operational limitations, including:

- Manual maintenance of student records leads to increased paperwork and higher operational costs.
- Separate software applications for attendance, examinations, fee management, and academic records create data redundancy and inconsistency.
- Lack of centralized database management makes information retrieval slow and inefficient.

- Students cannot access academic information in real time and often depend on faculty or administrative staff.
- Manual attendance calculation and result preparation are time-consuming and prone to human errors.
- Limited communication channels delay the dissemination of important academic notifications.
- Difficulty in tracking assignment submissions, academic progress, and student performance.
- Poor integration among different academic departments and administrative offices.
- Limited accessibility, as many systems are available only within the campus network.
- Weak authentication and security mechanisms increase the risk of unauthorized access and data breaches.
- Insufficient backup and recovery mechanisms may result in permanent data loss.
- Generating institutional reports requires significant manual effort and time.
- Existing systems often lack mobile compatibility and responsive user interfaces.
- Difficulty in handling large volumes of student data as institutions grow.
- Absence of analytical dashboards for monitoring academic performance and institutional statistics.

Drawbacks of the Existing System

The major drawbacks of the existing system are summarized below:

1. Excessive dependence on manual documentation.
2. High probability of human errors during data entry and record maintenance.
3. Time-consuming academic and administrative processes.
4. Poor communication between students, faculty, and administrators.
5. Lack of centralized and integrated information management.
6. Delayed access to attendance, examination, and result information.
7. Increased administrative workload and operational costs.
8. Limited scalability for large educational institutions.
9. Inadequate security and privacy protection for student data.
10. Difficulty in generating accurate reports and monitoring institutional performance.
11. Reduced transparency in academic activities.
12. Lower overall efficiency and user satisfaction.

PROPOSED SYSTEM :

The proposed **Student Portal** is a comprehensive web-based academic management system designed to automate and streamline the day-to-day operations of educational institutions. It integrates multiple academic and administrative services into a single centralized platform, allowing students, faculty members, and administrators to perform their respective tasks efficiently through secure role-based access. The system eliminates the drawbacks of traditional manual processes by providing real-time access to academic information, improving communication, reducing paperwork, and enhancing institutional productivity.

The Student Portal is developed using modern web technologies with a centralized database that stores and manages all academic records securely. Every authorized user is provided with unique login credentials, ensuring secure authentication and controlled access to system resources. Depending on the assigned role, users can access different functionalities without compromising data privacy and integrity.

Students can log into the portal to register for courses, update personal profiles, view

attendance records, access study materials, submit assignments, check examination schedules, download hall tickets, monitor fee payment status, view examination results, and receive notifications regarding academic activities. Faculty members can manage student attendance, upload lecture notes, assign coursework, evaluate assignments, record internal assessment marks, publish examination results, and communicate with students through announcements and notifications. Administrators have complete control over student admissions, faculty records, department management, timetable scheduling, user account management, report generation, and overall system maintenance.

The proposed system provides a centralized repository for storing all academic data, thereby eliminating duplication and ensuring data consistency across departments. Since all information is updated in real time, students and faculty always have access to the latest academic records. Automated workflows reduce manual intervention, improve operational efficiency, and minimize the possibility of human errors.

Security is a primary consideration in the proposed system. Strong authentication mechanisms, encrypted password storage, role-based authorization, secure database management, session handling, and regular data backups protect sensitive institutional information from unauthorized access and accidental data loss. These security measures ensure confidentiality, integrity, and availability of academic records.

The portal also incorporates responsive web design, allowing users to access the system from desktops, laptops, tablets, and smartphones. This flexibility enables students and faculty to access academic resources anytime and from anywhere, making the educational process more convenient and efficient.

The proposed Student Portal serves as a complete digital campus solution that improves communication among students, faculty, and administrators while supporting transparent, efficient, and secure academic managemen

Objectives of the Proposed System

The primary objective of the proposed **Student Portal** is to develop a secure, centralized, and user-friendly web-based platform that automates academic and administrative activities within an educational institution. The system aims to improve communication, enhance data management, reduce manual effort, and provide real-time access to academic information for students, faculty, and administrators.

The specific objectives of the proposed system are as follows:

1. To automate academic and administrative.
2. To provide a centralized database
3. To implement secure user authentication and role-based access control.
4. To simplify student information management.
5. To facilitate online course registration and enrollment,.
6. To automate attendance management.
7. To support online assignment management.
8. To provide easy access to study materials.
9. To streamline examination management.
10. To improve communication.

PROPOSED SYSTEM ADVANTAGES:

- Centralized academic and administrative data management.
- Secure user authentication and role-based access control.
- Automation of academic and administrative processes.
- Real-time access to student information.
- Easy student registration and profile management.
- Efficient course enrollment and management.
- Automated attendance management.

- Online assignment submission and evaluation.
- Quick access to study materials and learning resources.
- Simplified examination scheduling and result management.
- Integrated fee management system.
- Instant notifications and announcements.
- Reduced paperwork and manual record keeping.
- Improved communication between students, faculty, and administrators.

II. LITERATURE SURVEY

1. Title: "A Web-Based Student Information System"

Authors: Adewale O. Adebayo, Samuel O. Akinyemi

Description:

This paper presents a web-based Student Information System designed to automate the management of student records, admissions, course registration, and academic information. The system reduces manual paperwork, improves data accuracy, and enables efficient retrieval of student information through a centralized database. It enhances communication between students and administrators but provides limited support for advanced analytics and intelligent decision-making.

2. Title: "Design and Implementation of an Online Student Portal System"

Authors: Muhammad A. Khan, Asad Ali, Faisal Mehmood

Description:

The study proposes an online student portal that provides students with access to academic records, attendance, examination results, and course materials. The portal improves accessibility and reduces administrative workload by digitizing academic services. However, the system primarily focuses on student services and lacks comprehensive administrative and faculty management features.

3. Title: "Moodle: A Learning Management System for Online Education"

Authors: Martin Dougiamas

Description: This work introduces Moodle, an open-source Learning Management System (LMS) that supports online teaching and learning through course management, assignment submission, quizzes, and discussion forums. Moodle has become one of the most widely adopted educational platforms worldwide. However, it mainly focuses on e-learning and does not provide complete institutional management functionalities such as admissions, fee management, and administrative operations.

4. Title: "Role-Based Access Control Models"

Authors: Ravi Sandhu, Edward J. Coyne, Hal L. Feinstein, Charles E. Youman

Description:

This paper introduces the Role-Based Access Control (RBAC) model for secure information management. RBAC restricts system access based on user roles, ensuring that only authorized individuals can access sensitive information. The model has been widely adopted in educational management systems to protect student and institutional data. However, implementing RBAC efficiently in large-scale distributed environments requires careful policy management.

5. Title: "Cloud Computing for Education: Opportunities and Challenges"

Authors: Sultan N. Alharbi

Description:

This paper discusses the application of cloud computing in educational institutions to improve accessibility, scalability, and cost-effectiveness. Cloud-based student portals enable users to access academic resources from anywhere while reducing infrastructure costs. Although cloud technology enhances system availability, challenges related to data privacy, security, and regulatory compliance remain significant concerns.

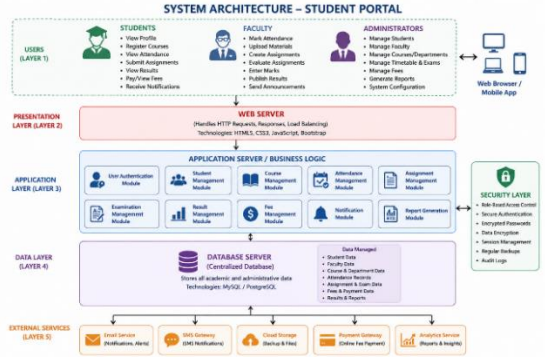
6. Title: "Student Attendance Management System Using RFID Technology"

Authors: Nirmalya Kar, Mrinal Kanti Debbarma, Ashim Saha, Dwijen Rudra Pal

Description:

This research presents an RFID-based attendance management system that automates attendance recording and minimizes manual errors. The system improves attendance accuracy and reduces faculty workload through automatic identification of students. However, it focuses only on attendance management and lacks integration with other academic modules such as assignments, examinations, and student performance tracking.

SYSTEM ARCHITECTURE



EXPLANATION OF THE SYSTEM ARCHITECTURE

The proposed **Student Portal** follows a **multi-layered web-based architecture** that integrates students, faculty members, administrators, application services, security mechanisms, and a centralized database into a single academic management platform. The architecture is designed to provide secure, scalable, and efficient management of educational activities while enabling real-time access to academic information. Each layer performs a specific function and communicates with the adjacent layers to ensure smooth data flow and efficient system operation.

1. User Layer (Layer 1)

The User Layer **consists of three primary users:** Students, Faculty Members, and Administrators**. These users access the Student Portal through a web browser or mobile device using secure login credentials.**

Student

The student performs various academic activities through the portal, including:

- Login using secure credentials
- View personal profile
- Register for courses
- View attendance records
- Submit assignments
- Download study materials
- View examination schedules
- Check examination results
- View fee details
- Receive notifications and announcements

Students can access academic information anytime and from anywhere using an internet connection.

Faculty

Faculty members are responsible for managing academic activities such as:

- Secure login
- Record student attendance
- Upload lecture notes
- Create assignments
- Evaluate submitted assignments
- Enter internal assessment marks
- Publish examination results
- Send announcements and notifications

The faculty portal reduces manual work and enables efficient academic management.

Administrator

The administrator manages the complete system and performs activities including:

- Student management
- Faculty management
- Department management
- Course management
- Examination management
- Timetable management
- Fee management
- User account management
- Report generation
- System configuration

The administrator has complete control over institutional operations.

2. Presentation Layer (Layer 2)

The **Presentation Layer** represents the web interface that connects users with the application.

Its primary functions include:

- Receiving user requests
- Displaying web pages
- User authentication interface
- Form validation
- Navigation between modules
- Sending requests to the application server
- Displaying processed results

The web server processes HTTP requests and responses while providing a responsive user interface developed using modern web technologies such as HTML, CSS, JavaScript, and Bootstrap.

3. Application Layer (Business Logic Layer)

The **Application Layer** is the core component of the Student Portal. It contains all business logic responsible for processing user requests and executing academic operations.

The major modules are:

User Authentication Module

- Login verification
- Password validation
- Session management
- Role-based access control

Student Management Module

- Student registration
- Profile management
- Academic record maintenance
- Student information updates

Course Management Module

- Course creation
- Course registration
- Subject allocation
- Semester management

Attendance Management Module

- Attendance recording
- Attendance calculation
- Attendance report generation

Assignment Management Module

- Assignment creation
- Online submission
- Assignment evaluation
- Faculty feedback

Examination Management Module

- Examination scheduling
- Hall ticket generation
- Internal assessment
- Result processing

Result Management Module

- Marks entry
- Grade calculation
- Result publication
- Academic performance analysis

Fee Management Module

- Fee payment records
- Due calculation
- Receipt generation

Notification Module

- Examination alerts
- Assignment reminders
- Academic announcements
- Circular notifications

Report Generation Module

- Student reports
- Attendance reports
- Examination reports
- Department reports
- Administrative reports

The Application Layer validates user requests, processes information, and communicates with the database server.

4. Data Layer (Database Server)

The **Database Layer** stores all academic and administrative information in a centralized database.

The database maintains:

- Student information
- Faculty information
- Department details
- Course details
- Attendance records
- Assignment records
- Examination schedules
- Marks and results
- Fee payment records
- Notifications
- Reports
- User accounts

A centralized database eliminates data redundancy, improves consistency, and enables

quick retrieval of information whenever required.

5. Security Layer

The Security Layer protects confidential academic information from unauthorized access.

Major security mechanisms include:

- Secure login authentication
- Role-Based Access Control (RBAC)
- Password encryption
- Database security
- Session management
- Regular database backup
- Audit logs
- Data privacy protection

These mechanisms ensure confidentiality, integrity, and availability of institutional data.

6. External Services Layer

The Student Portal can interact with external services to improve functionality.

These services include:

- Email service for notifications
- SMS gateway for alerts
- Cloud storage for backup
- Online payment gateway for fee payments
- Analytics services for report generation and institutional insights

These integrations enhance the overall usability and scalability of the system.

III. MODULES

1. **User Management Module**

This module handles user registration, login, and logout functionalities for both regular users and admin. It ensures authentication, profile creation (including details like phone, DOB, state), and session management to protect resources and maintain personalized user experiences.

- **Register:** Allows new users to create accounts with validation for passwords, usernames, and emails.
- **User Login:** Supports login by username or email with profile validation.
- **Admin Login:** A separate login for admins with hardcoded credentials for administrative access.
- **Logout:** Clears user sessions to securely log out users.

2. **Dataset Upload and Model Training Module**

This component enables users to upload engine health datasets, which are validated and saved on the server. It automatically preprocesses the data (feature scaling), trains multiple machine learning models (Random Forest, SVM, KNN, Gradient Boosting, Decision Tree), evaluates their accuracy, and saves the trained models and scalers for future prediction.

- Checks dataset integrity (must have at least two classes).
- Performs train-test split and data standardization.
- Trains ensemble models and persists them in the filesystem.
- Displays model accuracies to users.

3. **Engine Health Prediction Module**

Users can input real-time engine sensor data (10 features), which is preprocessed and fed into the saved models. Using majority voting across the ensemble of classifiers, the system predicts engine status as "Good" or "Faulty."

- Loads saved scaler to normalize inputs consistently.
- Runs predictions on all models and combines results via voting.
- Stores prediction results in the user's session.
- Provides condition status and detailed repair recommendations when faults are detected.

4. **Recommendation Viewing Module**

Based on the latest prediction stored in the user's session, this module displays a summary of engine health and maintenance advice tailored to the predicted condition.

5. **User and Admin Dashboards**

- **User Dashboard:** Personalized interface for users after login, possibly to upload data, predict engine health, or view profile.

- **Admin Dashboard:** Secure admin panel for managing registered users and monitoring system operations.
- Includes views to list all users for admin oversight

IV. SCREEN SHOTS

Student Portal

In propose work we are developing centralized Student Portal application where faculties and students can track their performance using Machine Learning algorithms. To predict performance we have utilized two different machine learning algorithms such as Naïve Bayes and XGBOOST and both algorithms get trained on past students marks data. Trained ML model can be applied on new student's marks details to predict performance.

Each algorithm performance is evaluated in terms of accuracy, precision, recall and FSCORE. Among all algorithms XGBOOST predicting student performance with more than 93% accuracy.

To implement this project we have designed following modules

1) Admin Dashboard: admin can login to system using username and password as admin and admin. After login admin will perform following activities
2) Add Faculty Details: after login admin can add new teacher details by utilising this module
3) Add Students Details: can add new students details
4) View Teacher Details: can view list of all existing teacher details
5) View Student Details: can view list of all existing students details
6) School Performance: can view performance of all teachers based on average grades obtained by student's under that teacher

Teacher Dashboard

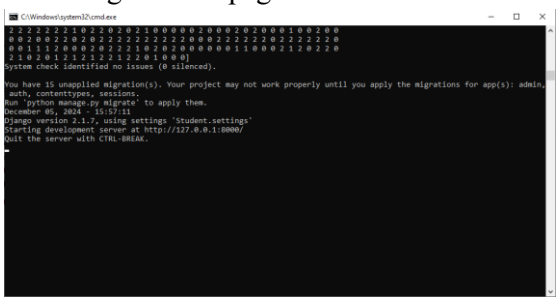
1) Teacher Login: teacher can login to system using username and password given by admin:
2) Add Attendance: can add attendance of student's
3) Create Assignment: can create new task or assignment details
4) Upload Materials: can upload and share study material with students
5) Add Marks: can add students marks subject wise
6) Messaging: can send messages to students and parents and all messages will be send to parent EMAIL
7) View Progress Report: can view grades and marks for each students and feedback predicted by ML algorithm
8) View Student Messages: can view messages posted by students

Students Dashboard

1) Student Login: can login to system using username and password given by admin
2) View Upcoming Assignments: can view new upcoming assignment task details
3) Messaging: can post doubts or messages to teacher
4) Download Material: can view list of material uploaded by teacher and can download desired material
5) View Marks: can view marks for all subjects and can get feedback predicted by ML
6) View Messages: can view messages sent by teacher.

To run project install MYSQL database and then open MYSQL console and then copy content from database.txt and paste in MYSQL console to create database

Install python 3.7.2 and then install all packages given in requirements.txt file and then double click on 'run.bat' file to start python web server and will get below page



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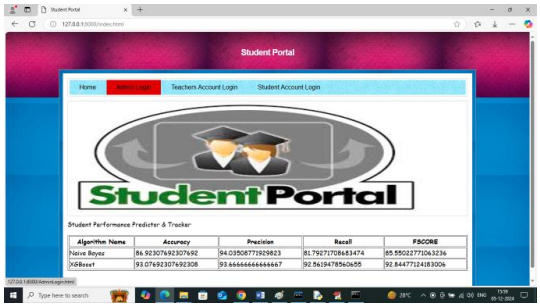
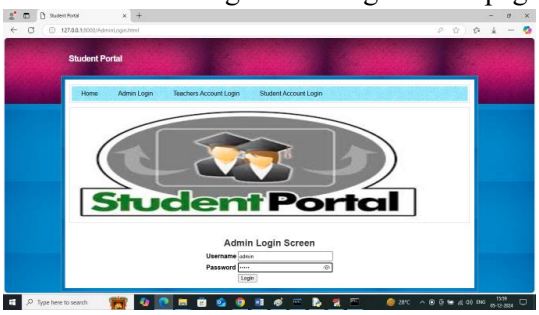
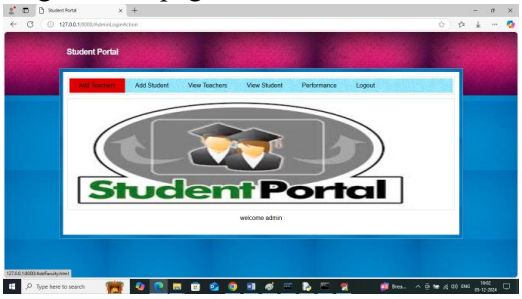
In above screen python web server started and now open browser and enter URL as http://127.0.0.1:8000/index.html and press enter key to get below page



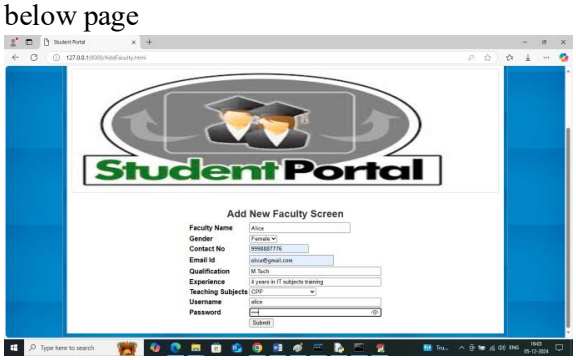
In above screen can see home page of the application and can see performance of ML algorithm showing in tabular format and in both algorithms XGBOOST got high accuracy. Now click on 'Admin Login' link to get below page



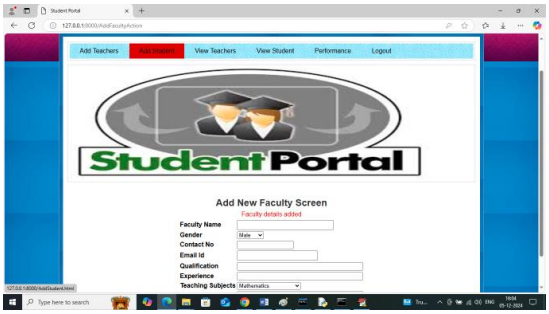
In above screen admin is login and after login will get below page



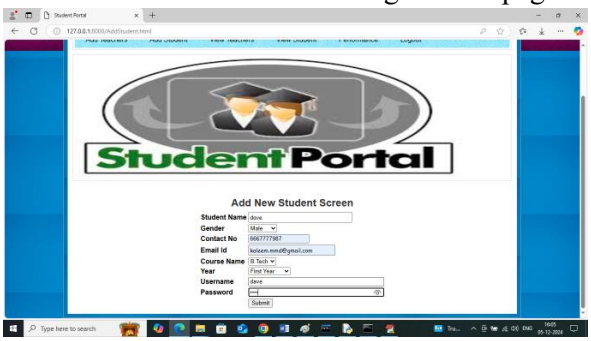
In above screen admin can click on 'Add Teacher' link to add new faculty details and get below page



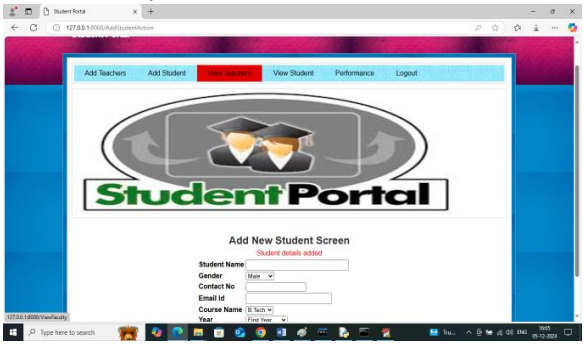
In above screen admin is adding faculty details and then press button to get below page



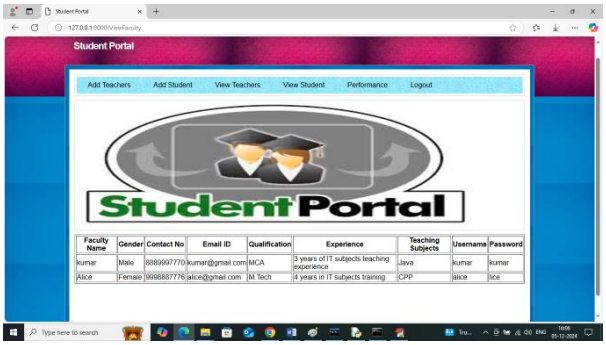
In above screen faculty details added and now click on 'Add Student' details to get below page



In above screen adding student details and then press button to get below page and give valid email ID so you can receive emails



In above screen student details added and similarly you can add any number of students and now click on 'View Teachers' link to view list of existing faculty details



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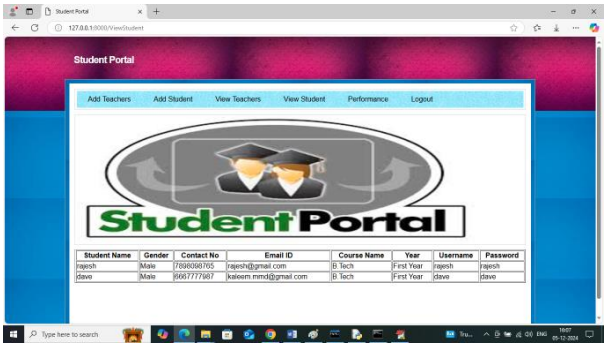
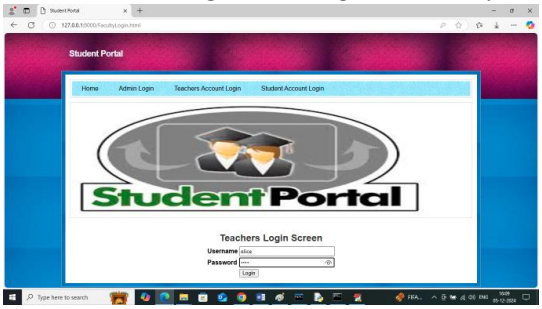
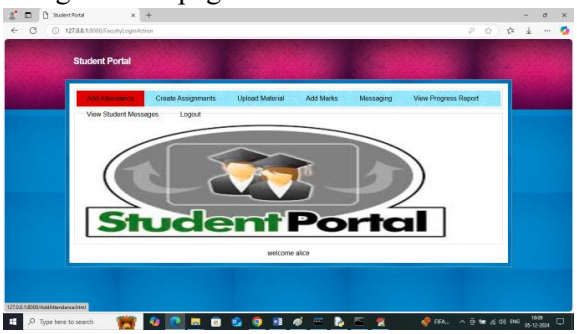
In above screen admin can view list of faculties and now click on 'View Student' link to get list of available students



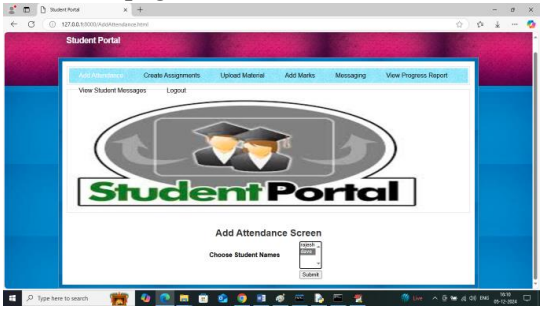
In above screen can view list of available students and can view performance after adding marks and now logout and login as Faculty



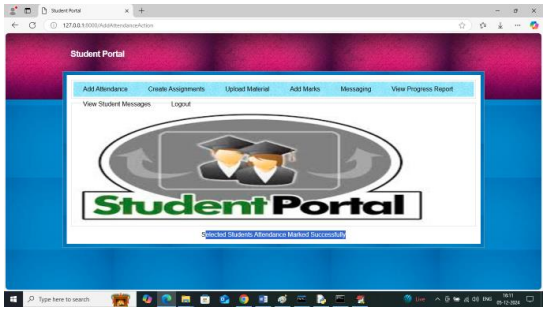
In above screen faculty is login and after login will get below page



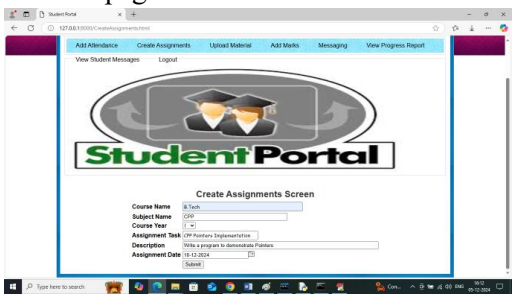
In above screen faculty can click on 'Add Attendance' link to get list of available students like below page



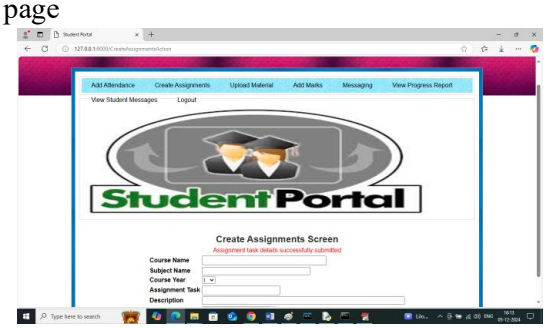
In above screen faculty can hold CTRL key and then select all students names and then press button to mark today's attendance and get below page



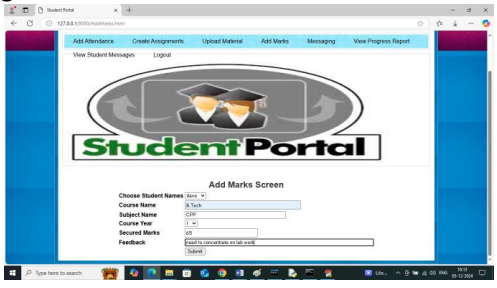
In above screen attendance marked successfully and now click on 'Create Assignments' link to get below page



In above screen faculty will create new task or assignment and then press button to get below page

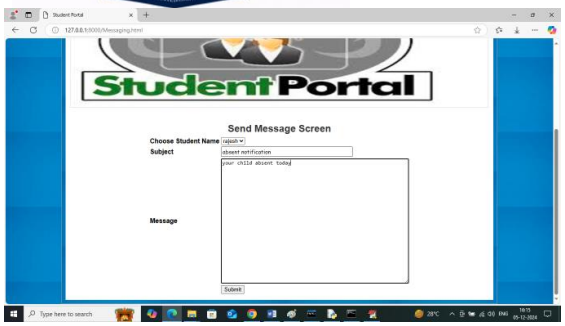


In above screen assignment details added and now click on 'Add Marks' link to get below page

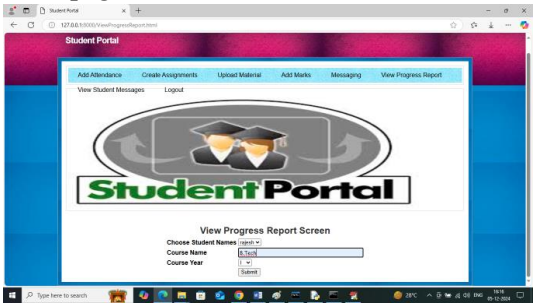


In above screen faculty awarding marks to student on specific subject and now click on 'Messaging' link to send email to parents about student activities

AMERICAN JOURNAL OF MANAGEMENT AND IOT MEDICAL COMPUTING
Peer Reviewed, Referred & Indexed Journal
E-ISSN: 3069-0110
Vol.5, No.3 (2026)
www.ajmimc.com



Using above module faculty will send email to student parents about his performance and now click on 'View Progress Report' link to get below page



In above screen faculty can select student name and then choose course name and year and then press button to get below page

V. CONCLUSION

The proposed **Student Portal** provides a secure, centralized, and web-based solution for managing academic and administrative activities in educational institutions. The system integrates multiple modules, including student management, faculty management, course registration, attendance tracking, assignment submission, examination management, result processing, fee management, and notification services into a single platform. By automating routine tasks, the portal minimizes manual effort, reduces paperwork, improves data accuracy, and enhances communication among students, faculty, and administrators.

The implementation of role-based authentication and centralized database management ensures data security, privacy, and efficient information retrieval. The portal enables users to access academic information in real time from anywhere using internet-enabled devices, thereby improving transparency and institutional productivity. Overall, the proposed Student Portal serves as a reliable, scalable, and user-friendly academic management system that supports the digital transformation of educational institutions and enhances the overall educational experience.

REFERENCES

1. **Pressman, R. S., & Maxim, B. R. (2020). *Software Engineering: A Practitioner's Approach* (9th Edition). McGraw-Hill Education.**
Foundational book covering software development methodologies, system analysis, design principles, testing, and maintenance used in developing the Student Portal.
2. **Sommerville, I. (2016). *Software Engineering* (10th Edition). Pearson Education.**
Provides comprehensive knowledge on software architecture, requirements engineering, UML modeling, and software project development.
3. **Silberschatz, A., Korth, H. F., & Sudarshan, S. (2019). *Database System Concepts* (7th Edition). McGraw-Hill Education.**
Explains database design, normalization, SQL, transaction management, and database security used in managing student records.
4. **Elmasri, R., & Navathe, S. B. (2017). *Fundamentals of Database Systems* (7th Edition). Pearson.**
Covers relational database design, ER modeling, database implementation, and integrity constraints for academic information systems.
5. **Gamma, E., Helm, R., Johnson, R., & Vlissides, J. (1994). *Design Patterns: Elements of Reusable Object-Oriented Software*. Addison-Wesley.**
Introduces object-oriented design principles and reusable software patterns for developing scalable web applications.
6. **Booch, G., Rumbaugh, J., & Jacobson, I. (2005). *The Unified Modeling Language User Guide* (2nd Edition).**

Addison-Wesley.
Provides detailed concepts of UML diagrams including Use Case, Class, Sequence, Activity, Component, and Deployment diagrams used for system design.

7. **Freeman, E., Robson, E., Sierra, K., & Bates, B. (2020). *Head First Design Patterns* (2nd Edition). O'Reilly Media.**
Describes object-oriented software design techniques and design patterns for developing maintainable applications.
8. **Duckett, J. (2021). *HTML and CSS: Design and Build Websites*. John Wiley & Sons.**
Explains front-end web development technologies used for designing responsive and user-friendly interfaces.
9. **Flanagan, D. (2020). *JavaScript: The Definitive Guide* (7th Edition). O'Reilly Media.**
Covers JavaScript programming concepts for implementing dynamic web pages and interactive user interfaces.
10. **Bootstrap Authors. (2023). *Bootstrap Documentation*. Bootstrap Team.**
Provides guidelines for developing responsive and mobile-friendly web interfaces using the Bootstrap framework.
11. **Oracle Corporation. (2023). *MySQL Reference Manual*. Oracle Corporation.**
Describes MySQL database management, SQL queries, security mechanisms, and database administration used in the Student Portal.
12. **Welling, L., & Thomson, L. (2017). *PHP and MySQL Web Development* (5th Edition). Addison-Wesley.**
Explains server-side web development, database connectivity, authentication, and CRUD operations for web applications.
13. **Fielding, R. T. (2000). *Architectural Styles and the Design of Network-Based Software Architectures* (Doctoral Dissertation). University of California, Irvine.**
Introduces the REST architectural style widely used in modern web-based application development.
14. OWASP Foundation. (2021). *OWASP Top 10: The Ten Most Critical Web Application Security Risks*. **Provides industry-standard security practices for protecting web applications against common vulnerabilities and attacks.**