International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

EdTech – seamless communication

Ankita Basarwadkar[1], Samiksha Danole[2], Vijaya Pawar[3], Runali Ramdurge[4]

(ankitabasarwadkar@gmail.com)
(samdanole123@gmail.com)
(vijayapawar239@gmail.com)
(runaliramdurge2005@gmail.com)
Computer Science and Engineering, DKTE Society's Textile and Engineering Institute, Ichalkaranji.

A B S T R A C T :

This all-in-one EdTech web application serves as an academic management hub that connects Administrators, Teachers, Students, and Parents into one platform. It automates grade management, attendance, scheduling and even communication. A more tailored view of academic progress and school activities is accessible for Students and Parents, while Administrators can manage workflows with ease. The software builds collaboration, transparency and ease of use in educational management with seamless real time notifications and an easy-to-navigate interface.

1. Introduction

The core aim of EdTech is also to improve the communication between parents and teachers. Parents, due to time constraints, often have struggles keeping track of their child's progress. This aims to solve the problem through a comprehensive dashboard available on mobile and web, which is easy to use and simplifies their workflow.

The Unified Dashboard gives parents complete information about children's performance throughout a specified time—dow to averages in grades, monitoring logs, and progress evaluations.

With our event calendar, never miss important notifications like tests, book fairs, talent shows, and others. Effortlessly communicate with other parents or teachers in one single unified channel without worrying about multiple communication silos.

The analytical data regarding absences as well as visits over the college year provides insights into the child's attendance record. The parent and teacher side offers efficiency by providing consolidated access to all relevant information in one platform.

Empower learning by enabling instant notifications like in events of academic milestones or other events, fostering collaboration in education. The communicated improvements enhances active participation from parents in the new platform when it comes to education..
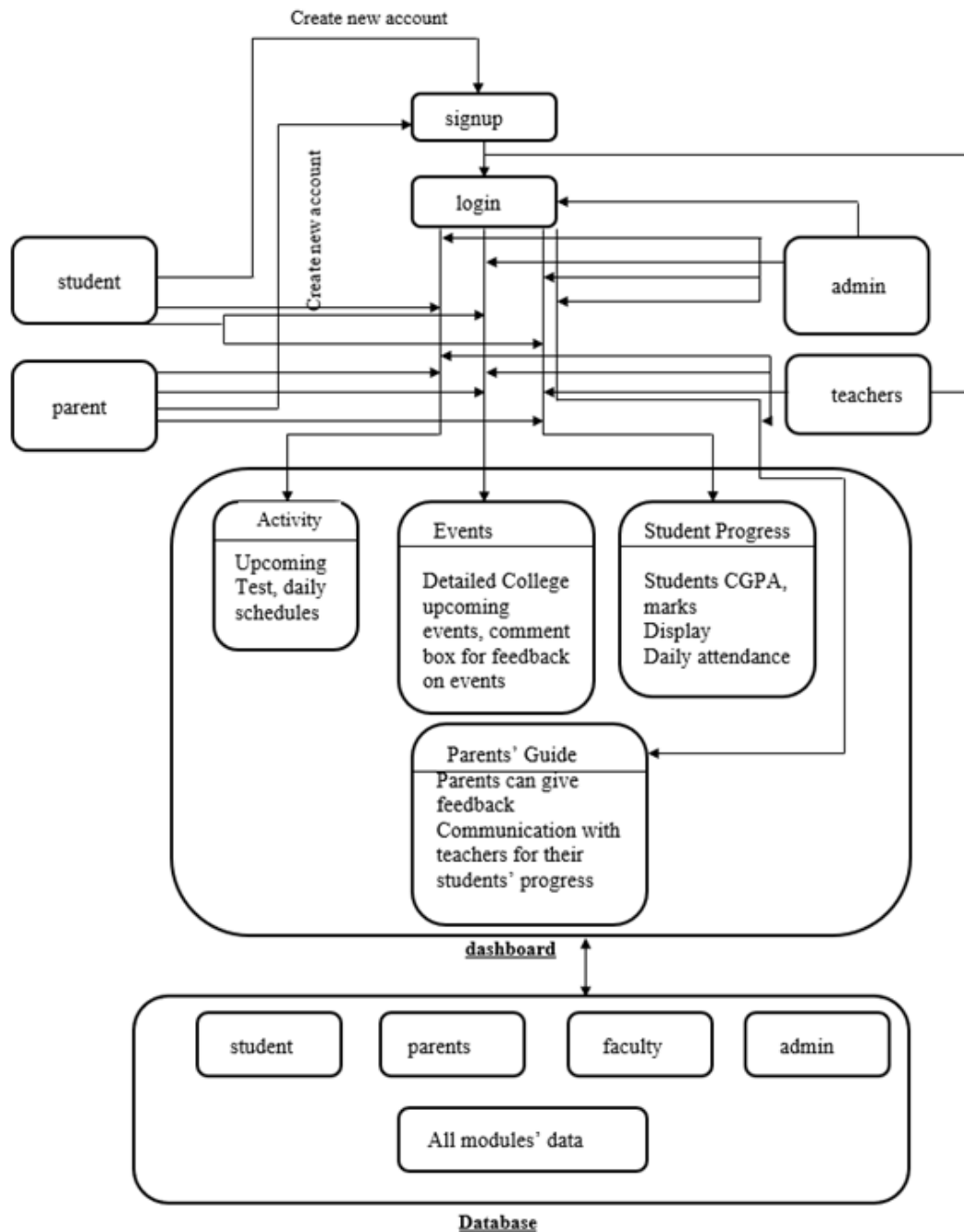
2. Literature Surve

- **Ally (2008)** emphasized that online educational platforms must be designed with the needs of diverse users in mind, offering role-based access to important functions like grade tracking, attendance, and communication tools. Your application addresses this by providing different dashboards for Administrators, Teachers, Students, and Parents.
- Research by **Epstein (2011)** highlights that parent-teacher communication plays a crucial role in enhancing student performance. By integrating direct messaging and academic reporting features for parents, the platform fosters stronger school-family partnerships.
- **Keller (2010)** also pointed out that real-time notifications and announcements keep users engaged and motivated. Your system's notification and event calendar features align well with this recommendation, ensuring that Students and Parents stay informed and proactive.
- **Bakia et al. (2013)** suggested that Teachers need streamlined tools for managing grades, tracking attendance, and posting academic content. The proposed platform meets these needs by simplifying classroom management tasks and improving productivity.
- In terms of technical design, **Vasudevan and Mehta (2019)** stressed the importance of user-centered notification systems in educational apps, improving user responsiveness and interaction, which your system achieves through real-time updates.
- Finally, **Cai and Tsai (2018)** highlighted the importance of security and privacy in educational platforms, a critical area for your PHP-MySQL application to ensure student and parent data is protected.

3. Problem Statement

Schools and other educational institutions have difficulties maintaining connections with parents, teachers, and students. Current solutions tend to be fragmented, lacking a central platform that consolidates student performance tracking, event management, and important notifications. This often

results in ineffective communication, procrastination, detachment, and in some cases, total attrition. There is need for a straightforward all-in-one system that provides access to academic records, event data, and instant communication.
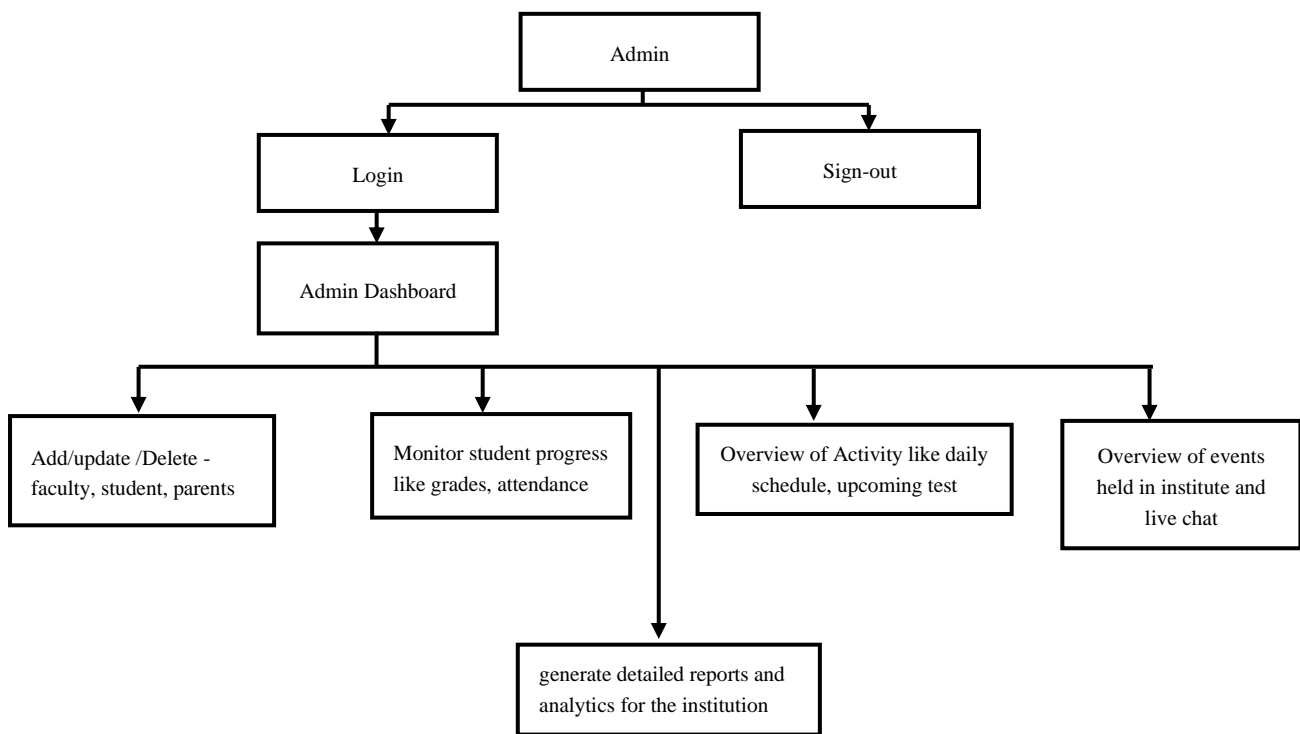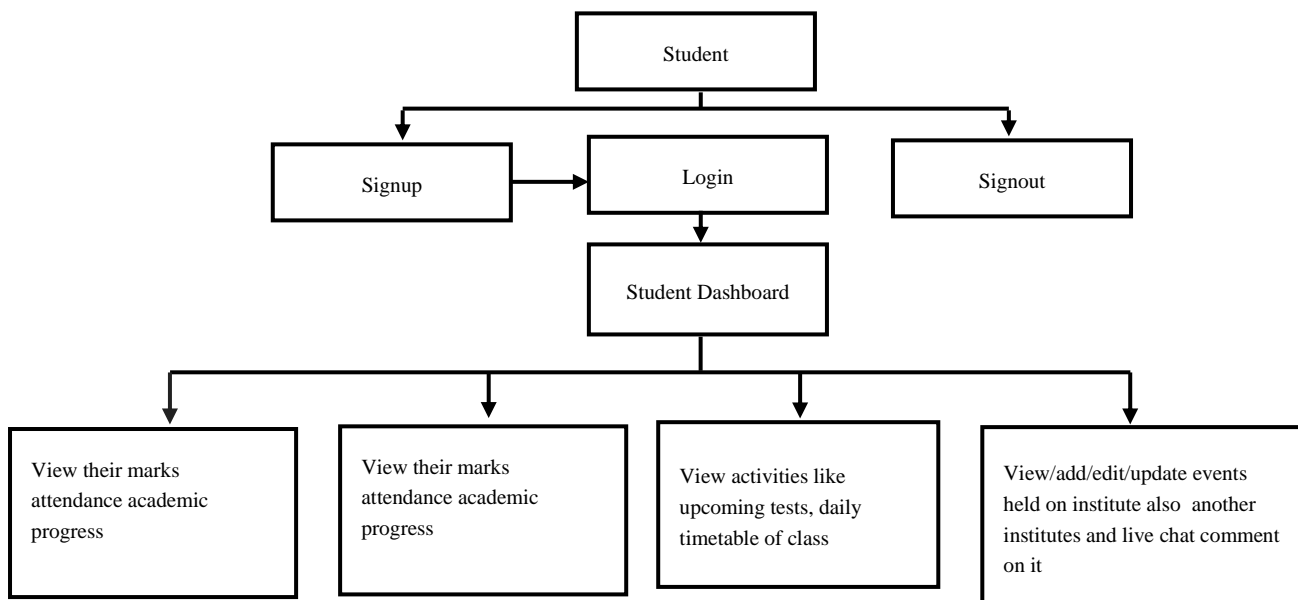
4. Architecture

5. Description

- **Admin**

    In the Admin Module, Admin has full control over the system, with the ability to view and manage all student, teacher, and parent profiles, monitor student grades, attendance, and academic records, oversee all events and announcements, manage system-wide notifications and messages, generate detailed reports and analytics for the institution, and maintain user access levels and permissions.

Fig (1.1). Admin Module

- **Student:-**

In the Student Module, Students can view their own grades, attendance, and academic progress, view the event calendar for school activities, add and manage events on the event calendar such as group study sessions and club meetings, and receive notifications about upcoming tests, assignments, and events.

Fig (1.3). Student Module

- **Faculty**:-

In the Faculty Module, Faculties have the ability to upload and manage student grades and academic records, track attendance and mark absences, post announcements and updates about tests, events, and assignments, communicate with parents and students, generate reports and analytics for their classes, and add and manage events on the event calendar, including tests, class activities, and events.
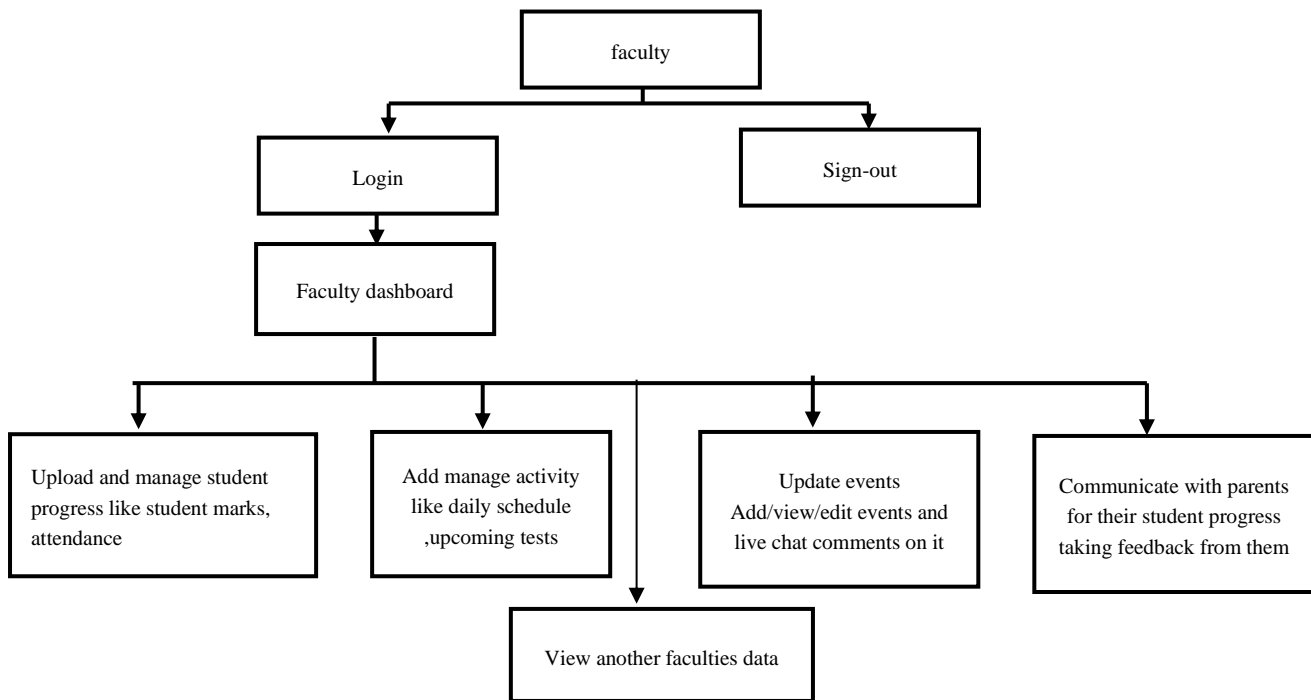
Fig (1.2). Faculty Module

- **Parent:-**

In the Parent Module, Parents can view their child's academic performance, including grades and progress over time, track attendance and absence records, access the event calendar for activities such as tests, book fairs, and talent shows, communicate with teachers and receive notifications about important updates like grades, events, and messages.
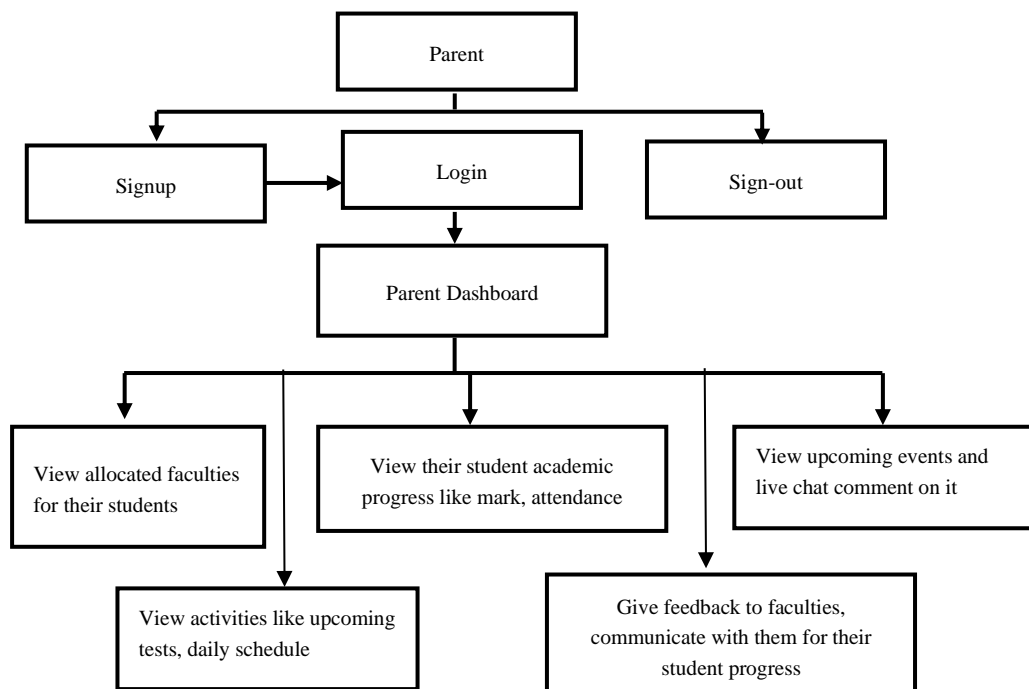

Fig (1.4). Parent Module

Conclusion

The EdTech web application effectively connects Administrators, Teachers, Students, and Parents through a secure, user-friendly platform. It streamlines academic management, improves communication, and enhances transparency across all roles. Built with PHP and MySQL, the system fosters a more efficient and engaging educational environment, supporting future growth and innovation.

REFERENCES

1. **Author:** Stair, R. M., & Reynolds, G. W. (2013). Principles of Information Systems: A Managerial Approach. Cengage Learning.

2. **Author:** Yang, D., Chen, P., Wang, K., Li, Z., Zhang, C., & Huang, R. (2023). Parental Involvement and Student Engagement: A Review of the Literature. MDPI.

3. **Author:** Milner-Bolotin, M., & Marotto, C. C. F. (2018). Parental Engagement in Children's STEM Education. Part I: Meta-Analysis of the Literature. LUMAT.

4. **Author:** Khandelwal, M., Mittal, N., Jain, H., & Jain, P. (2024). Student Management System for Colleges and Universities. SSRN.

5. **Author:** Lavania, G., Kumar, N., Arya, V., & Kumari, M. (2023). A Novel Mobile App Based College Event Management System. ResearchGate.