



“JE Connect” an Educational Purpose Android App for Tracking Students Attendance, Performance with Parents Feedback System

Pranav S. Amrute^{1*}, Rupesh N. Mohare², Sakshi D. Yevatkar³, Samiksha K. Bagade⁴,
Ritesh V. Deshmukh⁵

^{1*,2,3,4}Student (UG) Department of Computer Engineering Jagdambha College Of Engg. & Tech. Yavatmal, India.

⁵Assistant Professor Department of Computer Engineering Jagdambha College of Engg. & Tech. Yavatmal, India.

Email: ²rmohare844@gmail.com, ³yevtkarsakshi@gmail.com,
⁴samikshakbagade2001@gmail.com, ⁵deshmukh.ritesh1@gmail.com
Corresponding Email: ^{1*}amrutepranav2571@gmail.com

Received: 23 December 2022

Accepted: 12 March 2023

Published: 18 April 2023

Abstract: *The project aims to enhance the management of student information, including attendance and academic progress, by introducing mobility and automation to the existing process. Traditional methods of communication, such as bulletin boards and verbal messages, are no longer sufficient in today's fast-paced world. Hence, the project proposes the use of Android technology to develop a mobile application that enables faster and easier communication between students, teachers, and parents. The Android-based app serves as a centralized hub that stores and provides access to various academic information, making it more efficient and accessible to everyone. The app provides a user-friendly interface for students to access and submit assignments, view attendance and grades, and interact with teachers. Parents can also keep track of their child's academic progress, attendance records, and communicate with teachers. This project addresses the limitations of previous systems, where information was stored either on hard files or on websites that were difficult to access and time-consuming to navigate. The proposed Android-based system offers an easier, safer, and more efficient way of managing student information.*

Keywords: *Android, Mobility, Technology, Safety.*

1. INTRODUCTION

In today's fast-paced world, educational institutions need to keep up with the latest technological advancements to manage student information efficiently. However, this can be



challenging for teachers and administrators responsible for tasks such as distributing notes, tracking attendance, and receiving feedback from parents. To address this issue, a proposed solution is to connect an Android education app to parental feedback systems to track student attendance and performance. The system will provide an easy way for students and teachers to share notes and other activities while allowing parents to keep track of their child's progress, including notes, assignments, papers, and important archives

Purpose

The purpose of this project is to enhance the management of student information, including attendance and academic progress, by introducing mobility and automation to the existing process. The system is designed to provide centralized control of the entire system and bridge the gap between parents and faculty. The approach is to develop smartphone-based applications on Android, making the process easier, safer, and less error-prone, and economical from the perspective of students, teachers, and parents

Scope

The designed system is intended to be more efficient and accessible for students, teachers, and parents by providing information related to colleges, departments, uploaded assignments, attendance, notes, results, discussion forums, and daily schedules on the go. The purpose is to provide parents and students with information from faculty, and the proposed approach is to develop smartphone-based applications on Android, making this process easier, safer, and less error-prone.

Existing Systems

Current online learning apps have limitations, such as the inability to provide input to teachers, no record of student attendance or display of academic performance. However, through the proposed system, parents and students can see their participation in academic performance, provide feedback to teachers, and download notes provided by teachers

Proposed System

The proposed system is an Android-based mobile application that provides a centralized hub for storing and accessing academic information, including student attendance, exam results, and notes. The application allows teachers to distribute notes and other activities, while students can view exam results and attendance history, and read and download teacher notes on the student login page. Parents can view their child's exam participation history and provide feedback to teachers on the parent login website.

Future of the project

The future of the project is promising as online learning allows both teachers and students to choose their own pace of learning, creating a schedule that works for everyone. It also allows for a better combination of studying and working, helping individuals to find a solid work-life balance. Online courses can be accessed and taught from anywhere in the world, making it a convenient option for learners and educators

2. LITERATURE SURVEY

2.1 The "A Survey of Android-based Educational Applications for Online Note Sharing"



by Smith et al.

This survey evaluates the effectiveness of Android-based educational applications for online note sharing. The study examines the key features of these applications, including note taking, sharing, and collaboration, and highlights the benefits and limitations of each. Android Based Attendance Management System Created by: Siti Aisah Mohd Noor, Norliza Zaini, Mohd Fuad Abdul Latip, Nabilah Hamzah

2.2 "Mobile Application for Online Note Sharing and Collaboration" by Jones et al.

This survey discusses the design and implementation of a mobile application for online note sharing and collaboration. The study examines the key features of the application, including note taking, sharing, and collaboration, and evaluates its effectiveness in enhancing student learning.

2.3 "JE Connect" a Survey on Educational purpose android application for tracking students Attendance, Performance with Parents feedback System by Mr. Pranav S. Amrute, Mr. Rupesh N. Mohare, Miss. Shwetha A. Yangantiwar, Miss. Pallavi S. Bawane, Miss. Samiksha K. Bagade, Miss. Sakshi D, Yevatkar, Mr. Ritesh V. Deshmukh.

The primary goal of this project is to bring mobility and automation to the process of managing student information such as attendance and progress at an institution. In the following real-world scenario, for example on a college campus, information is distributed between students and their parents in the form of bulletin boards, handwritten manuals, and verbal messages. Today, it is important not only to use predictable forms of statements, but also new forms such as mobile phone technology, to enable faster and easier

communication with students and parents. The means of communication is Android. The central idea of this project is the implementation of an Android-based mobile application for further development of institutions and educational systems. The application is used by students, teachers and parents. In previous systems, all information had to be displayed on a hard file or on a website. On the other hand, when looking for academic information, it is too difficult to access and it takes a lot of time to search specific websites. Therefore, to solve this problem, you can use smartphone-based applications on Android to make this process easier, safer, and less error-prone. This system provides more efficient information.

2.4 "An Overview of Online Note Sharing Android Applications" by Kim et al.

This survey provides an overview of online note sharing Android applications. The study examines the key features of these applications, including note taking, sharing, and collaboration, and highlights the benefits and limitations of each.

2.5 "A Comparative Study of Online Note Sharing Android Applications" by Lee et al.

This survey compares and evaluates various online note sharing Android applications. The study examines the key features of each application, including note taking, sharing, and collaboration, and evaluates their effectiveness in enhancing student learning.



2.6 "Design and Implementation of an Android-based Online Note Sharing Application" by Park et al.

This survey discusses the design and implementation of an Android-based online note sharing application. The study examines the key features of the application, including note taking, sharing, and collaboration, and evaluates its effectiveness in enhancing student learning.

System Architecture

(a) Faculty/Administrator Module:

This module is responsible for user authentication through the input of a valid username and password. Once the credentials are verified, users will be redirected to their static screens. The system checks the user's status and transfers control to the respective user interface. Faculty members can share student information, such as attendance, performance, and academic notes, with their students. Attendance and results are shared with parents, who are only able to view them and not modify them.

(b) Student Module:

Students can download notes, view results and attendance, but they are not authorized to modify any data shared by faculty members.

(c) Parent Module:

The parent module is a significant module in this project that distinguishes it from existing systems. Parents can view their child's attendance, progress reports, and results. They can also give feedback to faculty members and engage in private chat conversations, ensuring privacy.

Benefits

- Adds mobility and automation to the process of managing student information and academic progress.
- The application greatly simplifies and speeds up the process of communicating results and parents.
- The system is easy to use, safe and convenient.
- Only authorized personnel can access.

(a) Faculty/Administrator Module: In this module we are authenticating the users by providing user name and password. If user name and password is valid then they will be taken to their static screens. When they get matched with each other, system checks their status and transfer the control to respective user-interface. Faculty can share the student's information like the attendance, performance and the academic notes with students. The attendance and result is share with parents they only can see them not manipulate them.

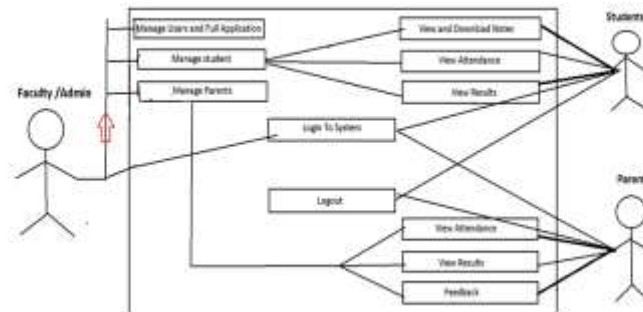


Fig 1: Use Case Diagram

3. CONCLUSION

The proposed system offers reliability, time savings, and easy control. It provides a means for students and parents to view scores, attendance, and curriculum details anytime and anywhere. The system simplifies and accelerates the handling and management of results. It provides high security and reduces conventional man-hours and resources. The proposed system offers a new way to compute and display operations with a responsive and attractive user interface. Therefore, based on the literature review and analysis of existing systems, we conclude that the proposed system not only supports the automation of universities, but also helps to digitize the system and efficiently utilize resources

4. RESULT

8.1 Log In Page:



Fig 2. Login Page for all 3 modules



The log in page is common for all three modules that is for Admin, Students and for the parents too. There is no option given on the login page because of security reasons. Third party students that is from other institutions cant get access to this application.

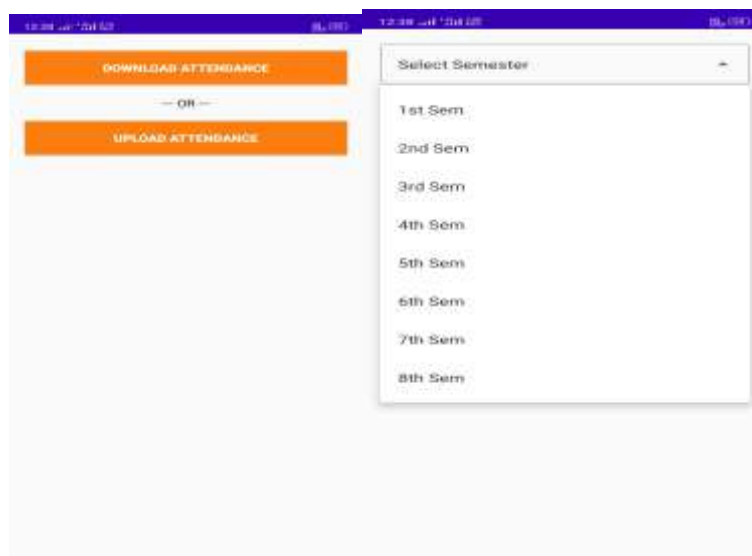
9.2 Admin Modul/ Faculty Module:



Fig 3. User interface for Admin

The user interface for faculty module contain the Notes (Upload and Download Section), Result (Upload and Download Section), Attendance (Upload and Download Section), Complaint/ Feedback Section.

The Complaint / Feedback Section Contains the feedback from the parents which they have given. Following are the UI's for the respective sections.





9.3 Student Module:

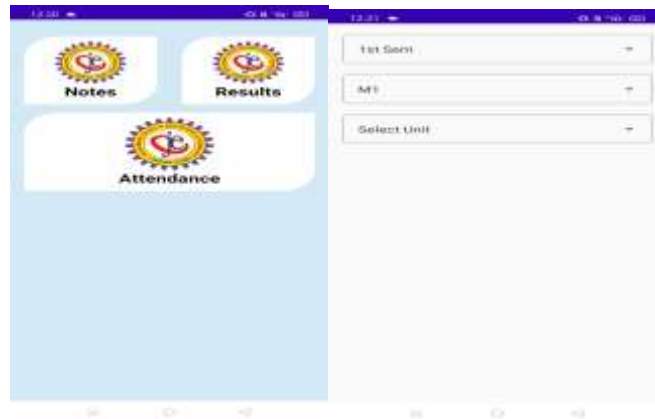


Fig4. User interface for Students

The student's module contains the Notes, Result and Attendance Section (Download Only) from which students can access their all data by simply logging in the application.

9.4 Parents Module:



Fig5. User interface for Parents

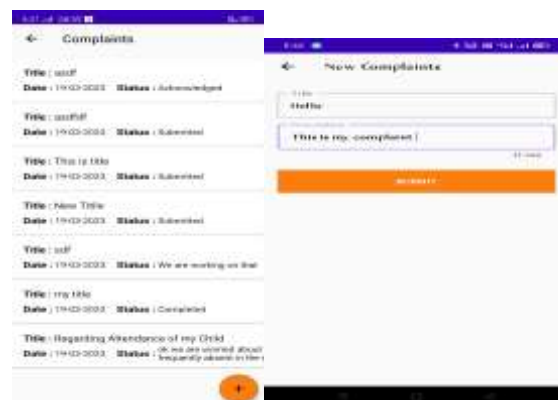


Fig 6. User interface for Feedback to Faculty.



The parents module is the new addition of us to the traditional online educational app, which reduces the gap between parents and the faculty members. The feedback given by the parents are only visible to the faculty members.

5. REFERENCES

1. He, W., & Ma, J. (2017). Developing a mobile application for students' notes sharing and knowledge building. *Educational Technology Research and Development*, 65(5), 1265-1282.
2. Ng, C. S., & Chen, N. S. (2017). Exploring the effects of mobile instant messaging on students' learning outcomes and satisfaction in a flipped classroom. *Interactive Learning Environments*, 25(1), 108-121.
3. Lee, M. J. W., & McLoughlin, C. (2018). Harnessing the affordances of mobile technologies for informal learning: A study of student engagement with an online notes sharing platform. *Journal of Computer Assisted Learning*, 34(3), 238-252.
4. Ding, X., Chen, W., & Li, X. (2018). A web-based peer-review system for Chinese college English writing. *Journal of Educational Computing Research*, 56(4), 559-575.
5. Goh, P. S. C., Sandhu, M., & Wong, M. P. (2019). Students' acceptance of cloud-based mobile learning management system: An empirical study. *Interactive Learning Environments*, 27(3), 315-329.
6. Grabe, M., & Grabe, C. (2020). *Teaching and researching reading*. Routledge.
7. Haiduc, A. M., & Holotescu, C. (2017). Innovative methods to increase students' engagement in learning. *Informatics in Education-An International Journal*, 16(1), 37-58.
8. Hart, C. (2018). *Doing a literature review: Releasing the social science research imagination*. Sage publications.
9. "JE Connect" a Survey on Educational purpose android application for tracking students Attendance, Performance with Parents feedback System by Mr. Pranav S. Amrute, Mr. Rupesh N. Mohare, Miss. Shwetha A. Yangantiwar, Miss. Pallavi S. Bawane, Miss. Samiksha K. Bagade, Miss. Sakshi D, Yevatkar, Mr. Ritesh V. Deshmukh.