Development academic monitoring system using android application

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Abstract:

This paper is aimed at developing an android application for monitoring the academics of student A student monitoring system there is student management system, school administration software or student administration system is a management information system for education establishments to manage student data. Student information systems provide capabilities for registering students in courses documenting grading, transcripts, results of student tests and other assessment scores; building student schedules; tracking student attendance; and managing many other student-related data needs in a school and colleges . A student management system helps a school and college manage data, communications, and scheduling. A school and college system generates and uses a large amount of data. This data must be communicated appropriately to students, faculty, and parents. A student management system helps schools and colleges to store, manage, and distribute this information. Some student management systems are designed to serve all of a school as well as college data management needs. This application contains the student's academic reports transactions, exam section, student section etc.

Keywords: **Head login, Teacher login**

I.   Introduction

A student management system helps a school and college manage data, communications, and scheduling. A school and college system generates and uses a large amount of data. This data must be communicated appropriately to students, faculty, and parents. A student management system helps schools and colleges to store, manage, and distribute this information.Some student management systems are designed to serve all of a school as well as college data management needs. This application contains the student's academic Reports, transactions, exam section, student section etc. This application may contain the teacher's id and password through which they can login to their portal. We are trying to make and android application from an system based software for more flexible work for faculties related student detailed. This is an convenient to the faculties to use this application through their mobile. Basically the idea behind to build this project is the problems of teachers to restricted to one particular computer to access the particular student's information retrieve or update any kind of data there is no other option for faculties to access the data of students except computer. This application provides flexibility to faculties to access the student details. This application may contain the teacher's id and password through which they can login to their portal. We are trying to make and android application from an system based software for more flexible work for faculties related student detailed. This is an convenient to the faculties to use this application through their mobile. Basically the idea behind to build this project is the problems of teachers to restricted to one particular computer to access the particular student's information retrieve or update any kind of data there is no other option for faculties to access the data of students except computer. This application provides flexibility to faculties to access the student details.

Most vendors of student management software provide:

- Student information storage, including grades and attendance
- Faculty management
- Report generation
- Tool-assisted scheduling
- Access portals for students and parents
- Enrolment or registration management
- Medical and health management
- State compliance assistance

This application will help in managing the student's reports, results and exams will become easier with one such system.

II. Literature survey

[1]Akash Kashiappa A J1, Suchetha P2, Yashas Cariappa C S3 , K R Sumana4, "Smart Student Monitoring System".

In paper they have indicated how RFID technology has been implemented in student monitoring system. The primary aim of the research is to uniquely identify individual students based on their unique tag identifiers.

[2]Rumana Anjum, Vijaya Kamble, "Student Tracking and Attendance Monitoring System".

A number of related works exist in literature, application of RFID Technology to different areas and specifically to the area of academic attendance monitoring problem. Author in reviewed the current research application of RFID to different areas with emphasis on application for supply chain management and developed a taxonomic framework.

[3]Ayeni Olaniyi Abiodun, Dada Olabisi, Talabi Olanrewaju, "Lecture Time Table Reminder System on Android Platform".

This project implements lectures time table reminder system on Android platform. The design and implementation of the project was successful. Users/students can benefit from this project by downloading the application on their phones, installing it, launching it with internet connection is needed only at the first use of the application in order to download the pre-loaded lectures time table.

[4]Satish H. Jadhav, Ashutosh B. Makone, "Android Based Digital Attendance Recording System".

This project will help the lectures to reduce their workload by reducing the time and calculations required to update the attendance manually. After taking the attendance in the mobile phone, lecturer will update attendance of students in the web server. Keeping in view the importance of attendance recording, our proposed system provides fast solution for any organization especially academic institutions.

[5]Megha Goel, Ankita Wasnik, Ashwini Gulhane, Swati Gajarlewar, Yogita Rasekar, "College Monitoring System".

Online application of the whole system helps easy to access to the system anywhere. Physical presence of the student is not required. Authentication is provided for this application. Only registered students can access.

[6]Irene L. Balmes, "Online Day to Day Monitoring System".

In developing a system, some processes need to be taken into consideration. The next section discusses all system development process. According to the study, a system development is the process of designing, testing, developing and implementing a new system (Palacio, 2010 and Mwangi, 2015).

[7]Shraddha S. Chawhan, Mangesh P. Girhale, Gunjan Mankar, "Mobile Phone Based Attendance System".

This project will help the lecturers to reduce their workload by reducing the time and calculations required to update the attendance manually. Students and their parents will also view the attendance and curriculum details using the website.

[8]RiccardoMazza,ChristianMilani, "Graphical Interactive Student Monitoring Tool for Course Management Systems".

This paper presented a graphical interactive student monitoring and tracking system tool called GISMO that extract stracking data fromanon-linecour semaintained with Moodle, and generates graphical representations that can be explored by course instructors to examine various aspects of distance students.

[9]Rajan Patel, Nimisha Patel, Mona Gajjar, "Online Students' Attendance Monitoring System in Classroom Using Radio Frequency Identification Technology: A Proposed System Framework".

It is a generic architecture of an intra-connected network of RFID readers within an educational institution. It is also monitoring system and providing more services to integrate with other campus activity such as RFID base book library, automatic payment system in canteen etc.

[10]P.Padma Rekha (Assistant Professor / EIE, K.S.Rangasamy College of Technology, Tiruchengode) D.Amudhan, V.Narendhiran, N.Pavithra, S.Ramya K.S.Rangasamy College of Technology, Tiruchengode, Tamil Nadu.

This project takes out any plausibility of proxy also keep record of attendance of students in a well viable way. The general project is in charge of attendance of students. The attendance is set apart on the premise of in and out times record by the cams.
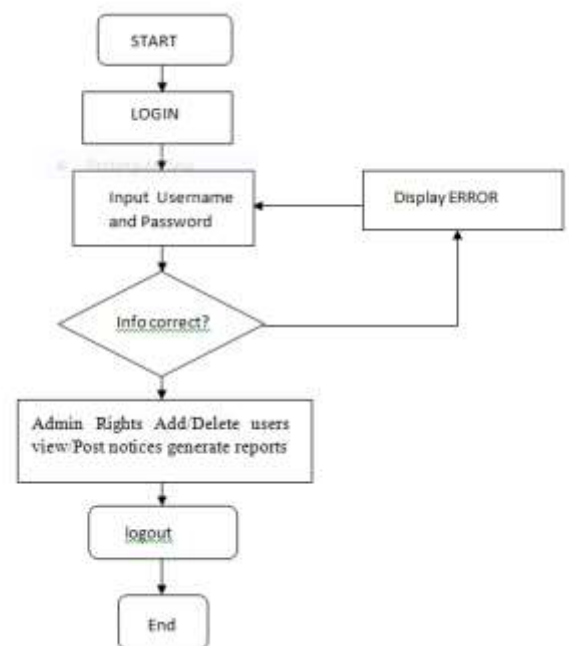
III. Problem definition

Existing software is basically system software if anyone wants to access it without any system this software may not be access without computer. The user may not be access it through their mobile phone if some minor change is too perform there is need to go their system and access the information. It may not be portable and restricted on system only. The study entitled "Development of academic monitoring using android application" was conducted to find answers to the following questions.

- How will the system assist the faculty members for an easy and on-time submission of the day to day monitoring activities?
- How will the system help the college dean to check quickly and monitor the submitted day to day monitoring forms of faculty members?
- What specific capabilities can be supported by the day to day monitoring system to ensure data integrity?

IV. Proposed approach

Regarding the literature and taking in to consideration its limitations, we proposed the "Development of Online Android Application for Monitoring Academics of NIT". In this proposed system we are going to develop an android application which will an android application of an system software. This is an application for smart student monitoring system to make monitoring systems efficient and effective Mobile Phone Based Attendance System, students academic ,reports ,transactions ,exam section, student section etc.24x7 availability of information and changes is done by main head and faculties but some main changes is done by head only. . The system produced should be easily modified to address any form of constraints in an actual situation. The College Time Table module in the system is a very useful system for Students, Faculties & Administrator through which students/parents can get the information about their schedule. This is also useful for faculties through which they can view when is its classes. Administrator can add or remove students, faculties with

very less effort also it can assign different jobs to different faculties.

V. Methodology

RAD model is Rapid Application Development model. It is a type of incremental_model. In RAD model the components or functions are developed in parallel as if they were mini projects. The developments are time boxed, delivered and then assembled into a working prototype. Rapid application development is a software development methodology that uses minimal planning in favour of rapid prototyping. A prototype is a working model that is functionally equivalent to a component of the product. In the RAD model, the functional modules are developed in parallel as prototypes and are integrated to make the complete product for faster product delivery. Since there is no detailed preplanning, it makes it easier to incorporate the changes within the development process.RAD projects follow iterative and incremental model and have small teams comprising of developers, domain experts, customer representatives and other IT resources working progressively on their component or prototype. The most important aspect for this model to be successful is to make sure that the prototypes developed are reusable.

- Reduced development time.
- Increases reusability of components
- Quick initial reviews occur
- Encourages customer feedback
- Integration from very beginning solves a lot of integration issue.

VI. Expected Outcome

Once the application is ready with all the functionality it is expected from the system that system should be smart student monitoring system to make monitoring systems efficient and effective. Mobile Phone Based Attendance System, students academic, reports, transactions, exam and ,student section etc. 24*7 availability of information and changes is done by main head and faculties but some main changes is done by head only. It can be used such as schools, colleges and institutes and almost everywhere.It can be useful for monitoring the students information through mobile application. It may be use in coaching and where is need to monitoring the student's data.

VII. Conclusion

This smart system involves live periodical snapshots along with which is monitored by the respective authority from anywhere. This smart system is not only for reduction of manual work of the faculty fraternity also it helps or aids the students by giving them notifications about his/her scholarship and also the timetable. There are other systems which fulfil only one task such as for recording video we have CCTV similarly we have barcodes for attendance management so our smart system focuses on combining on all these methods in a cost effective manner. This project is successfully implemented with all the features mentioned in system requirements specification. The application provides appropriate information to users according to the chosen service.

The project is designed keeping in view the day to day problems faced by a college.

Online application of the whole system helps easy to access to the system anywhere. Physical presence of the student is not required.

Authentication is provided for this application. Only registered students can access.

This system gives automated approach to maintain the student attendance. In proposed system it is necessary to issuing RFID tag to each and every student in the college.

VIII. Reference

[1] Akash Kashiappa A J1, Suchetha P2, Yashas Cariappa C S3 , K R Sumana4 "Smart Student Monitoring System" International Research Journal of Engineering and Technology 2017.

[2] Rumana Anjum, Vijaya Kamble "Student Tracking and Attendance Monitoring System Using RFID" Journal of Scientific Research in Computer Science Engineering and Information Technology 2017.

[3] Ayeni Olaniyi Abiodun, Dada Olabisi, Talabi Olanrewaju, "Lecture Time Table Reminder System on Android Platform". I.J .Wireless and Microwave Technologies 2017.

[4] Satish H. Jadhav, Ashutosh B. Makone, "Android Based Digital Attendance Recording System".International Journal of Advance Research,Ideas and Innovations in Tecnhology,2017.

[5] Megha Goel, Ankita Wasnik, Ashwini Gulhane, Swati Gajarlewar, Yogita Rasekar, "College Monitoring System". International Journal for Research in Applied Science & Engineering Technology (IJRASET)March 2017.

[6] Irene L. Balmes, "Online Day to Day Monitoring System". Research and Innovation Globally Sustainable Development May 2016.

[7] Shraddha S. Chawhan, Mangesh P. Girhale, Gunjan Mankar," Mobile Phone Based Attendance System". IOSR Journal of Computer Engineering April 2013.

[8] RiccardoMazza,ChristianMilani, "Graphical Interactive Student Monitoring Tool for Course Management Systems". Institute for Communication Technologies 2012.

[9] Rajan Patel, Nimisha Patel, Mona Gajjar, "Online Students' Attendance Monitoring System in Classroom Using Radio Frequency Identification Technology: A Proposed System Framework". February 2012.

[10] P.Padma Rekha (Assistant Professor / EIE, K.S.Rangasamy College of Technology Tiruchengode) D.Amudhan, V.Narendhiran, N.Pavithra, S.Ramya K.S.Rangasamy College of Technology, Tiruchengode, Tamil Nadu, "AUTOMATIC ATTENDANCE MONITORING SYSTEM". K.S.Rangasamy College of Technology ,March 2012.

WEBSITES VISITED

[W1] https://www.w3schools.com/

[W2] https://developer.android.com/

[W3] http://getbootstrap.com/

[W4] https://www.tutorialspoint.com/

[W5] http://stackoverflow.com/

[W6] http://www.bluetooth.com/Pages/FAQ.aspx