DESIGN AND IMPLEMENTATION OF ANDROID APPLICATION FOR IMPROVED SYSTEM FOR COLLEGE AUTOMATION

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Abstract *: This project is an android application and a modified version of the present application which is used by the institution. Mobile phones and android applications play a major role in human lives, from being an ordinary talking device to a human companion. College management system focuses on helping the staff's, lecturers who are working in the institution. The android application is focussed to help the staff's for the progression and the academic development of the institution. i e. by reducing the manual labour, checking the performance of the students. It maintains a database of all the information that are recorded and received. It helps the staff's to help students who need individual attention for their academic performance and also in case of any personal grievance.*
Keyword: Student Information System , Database , HTML , SQL.

I. INTRODUCTION

 The design and implementation of a comprehensive student information system and user interface is to replace the current paper   records [1]. College Staff are able to directly access all aspects of a student's academic progress through a secure, online interface embedded in the college's website. The system utilizes user authentication, displaying only information necessary for an individual's duties. Additionally, each sub-system has authentication allowing authorized users to create or update information in that subsystem. All data is thoroughly reviewed and validated on the server before actual record alteration occurs. In addition to astaff user interface, the system plans for student user interface, allowing users to access information and submit requests online thus reducing processing time. All data is stored securely on SQL servers managed by the college administrator and ensures highest possible level of security. The system features a complex logging system to track all users access and ensure conformity to data access guidelines and is expected to increase the efficiency of the college's record management thereby decreasing the work hours needed to access and deliver student records to users. Previously the college relied heavily on paper records for this initiative. While paper records are a traditional way of managing student data there are several drawbacks to this method. First, to convey information to the students it should be displayed on the notice board and the student has to visit the notice board to check that information. It takes a very long time to convey the information to the student. Paper records are difficult to manage and track. The physical exertion required to retrieve, alter, and re-file the paper records are all non-value added activities. This system provides a simple interface for the maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using online student information management system. The paper focuses on presenting information in an easy and intelligible manner which provides facilities like online registration and profile creation of student's thus reducing paper work and automating the record generation process in an educational institution

II. LITERATURE REVIEW AND RELATED WORK

 1 .Design and Implementation of Improved System for College Automation and Management
Authors: - Mohitha H V1 , Anandu Mohan2 , Jeys Reji3 , Bency S Babu4 , Tintumol M G5
The paper discusses the method of the management information in higher education. On the basis of a comprehensive investigation and analysis on the student management in higher education, we establish the models of the college students' management information by adopting the advanced information technology, and construct the student management information platform. Moreover, we analyze the characteristics of the information management in higher education, and elaborate the methods to solve the difficulties confronting in the students management of the higher education. Finally, the key method and technology to carry out the information management platform are presented

2 .Online College Management System
Authors : - KartikiDatarkar Neha Hajare Nidhi Fulzele
The design and implementation of a comprehensive Online College Management System and user interface is to Replace the current paper records. College Staff are able to directly access all aspects of a student's academic Progress through a secure, online interface embedded in the college's website. The system utilizes user authentication, displaying only information necessary for an individual's duties. Additionally, each sub-system has authentication allowing authorized

users to create or update information in That subsystem. All data is thoroughly reviewed and validated on the server before actual record alteration Occurs. In addition to a staff user interface, the system plans for student user interface, allowing users to access information and submit requests online thus reducing processing time. All data is stored securely on SQL servers managed by the college administrator and ensures highest possible level of security. The system features a complex logging system to track all users' access and ensure conformity to data

access guidelines and is expected to increase the efficiency of the college's record management thereby decreasing the work hours needed to access and deliver student records to users

3. A Research Paper on College Management System

Authors :-Lalit Mohan Joshi.

The title of the project is "COLLEGE MANAGEMENT SYSTEM FOR COLLEGE" (CMS). CMS is defined as an application based on Intranet that aims to all the levels of management providing information within an organization. This system can be used as a information management system for the college. For a given student/staff (Technical / Non-technical) the Administrator creates login id & password, using these student/ staff (Technical / Non-technical) can access the system to either upload or download some information from the database.

4. WEB BASE STUDENDT INFORMATION MANAGEMENT SYSTEM

Authors :- S. R. Bharamagoudar , Geeta R. B, S. G. Totad

With the advance in time and technology there is a need for faster dissemination of information .The increasing advantages of automated system now are at highest position thus many manual processes are automated. Since the automated system is demanded now-a-days, educational infrastructures like colleges needed their manual system to function on mobile computing systems. Changes in Information Technology (IT) allow institutes to utilize databases and applications such as Student Information System thus, making the accessing of records centralized. One of the changes that came about is web based applications. Abbreviations such as IEEE and SI do not have to be defined. .

III. EXISTING SYSTEM

The system which is used now a days has some drawbacks which need to be improved for better performance. The existing system which we use in our college is traditional process that includes a complete manual process. Now- a- days, education is playing very significant role in the society. Day-by-day, the percentage of illiterates are decreasing and the percentage of literates is increasing. Education will change the society in all the aspects and everyone wants to study higher professional degrees. Admissions are increasing day by day so there by ratio of establishment of new colleges are also increasing. But the actual challenge is starting from now. Most of the colleges are maintaining student information in records. When the number of records increased, it is difficult to maintain the information of each student in the old manual system. Maintaining the records manually leads to error prone and required more man power and it consumes more time for processing the records. The current system has no application to give the communication between faculty and student by the mobile for a specific college as well as for managing the faculty and students and there is no application developed for communication by giving system predefined methods. For attendance management in the present system all work is done on paper. The whole session attendance is stored in register and each of the session's reports is generated. We are not interested in generating report in the middle of the session or as per the requirement because it takes more time in calculation. At each of session the students who don't have 75% attendance get a notice.

IV. PROPOSED SYSTEM

The proposed system has an android OS, a web services, a database server and the user as its components. The user can login to the application through an android smart phone. The development of the new system contains the following activities, which try to automate the entire process keeping in view of the database integration approach.

- User friendliness is provided in the application with various controls.
- The system makes the overall project management much easier and flexible.
- It can be accessed over the Internet.
- Various classes have been used to provide file upload and mail features.
- There is no risk of data mismanagement at any level while the project development is under process.
- It provides high level of security using different protocols like https etc.
- Students can view their entire details by using there android application

OBJECTIVES OF PROPOSED SYSTEM

1. Providing the online interface for students, faculty etc.
2. Increasing the efficiency of college record management.
3. Decrease time required to access and deliver student records.
4. To make the system more secure.
5. Decrease time spent on non-value added tasks.
6. Login to the system through the first page of the
7. Application Change the password after logging into the system
8. View/change his/her details.
9. Can get help through the help option to view different
10. features of the system. Students can give feedback on college/staff/any other student.
11. An admin login should be present who can read as well as remove any uploads.
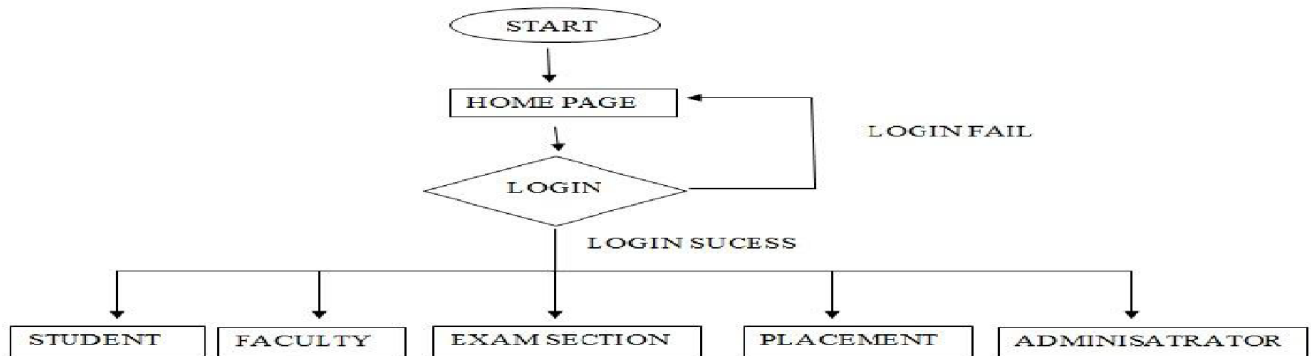
V. .ARCHITECTURE OF SYSTEM

Fig . DATA FLOW DIAGRAM

STUDENT: The student is of center focus, because in every college student plays the very important role. Student can access the information of the college, course details, subject details, faculty details, training and placement cell information and exam section information. The course details include information regarding branch he is studying, the academic curriculum of the college, year wise subject offered by the branch, the subject details include the syllabus of the subjects, information regarding the staff handling the subjects, the subjects he presently registered for the semester he is presently studying, attendance and internal marks of the subjects, he can also ask any queries to the staff regarding the subjects. The placement details include the information about the companies, the eligibility criteria for attending recruitment's of the companies, the process of recruitment's, the date and time of the recruitment. The placement cell updates the student information that got selected for a company. The exam section details include the internal and external time tables, the room allocation for the exams; it also contains the semester end results student get the time table, Assignment of any subject and canteen menu displays.

FACULTY: The staff can update the information regarding the student attendance, internal marks of the students and any information regarding the subjects they handle. They can also view the student details for better understanding the student performance and improving the efficiency of the student. The staff also gets the updates from the college regarding any events occurring in the college. They can also get the notifications from the placement cell and exam section. The get daily time table, intimation of unit test, calculation of attendance for student.

EXAM SECTION: The examination section is responsible for updating internal and external examination time table. They are also responsible for the updating the supervision list for the faculty and class room allocation for the students in the examination. And they are responsible for the checking and approving the internal marks details updated by the staff.

PLACEMENT CELL: The placement officer is responsible for updating the placement related information like eligible criteria for a particular company, arriving date for the company which is coming for recruitment, the list of students who are eligible for attending the recruitment process. The list of student who got placed in a company and the placement officer can access the student information from the student database for selecting the eligible candidates list for placements. He also can send notifications to students regarding any information.

ADMINISTRATOR: The administrator is responsible for entering the new student, promoting the student from one class to another, from one semester to another and from one year to another. Managing the student accounts like any changes regarding to the name, address etc. The administrator also manages the faulty accounts like entering a new faculty, assigning the faculty to the subjects. The administrator also updates the college related information like calendar of events, information regarding any other

Event that occur in the college. The administrator will check the all the updates i.e. student updates, faculty updates, exam updates etc. The administrator has the highest level of power in the student information system
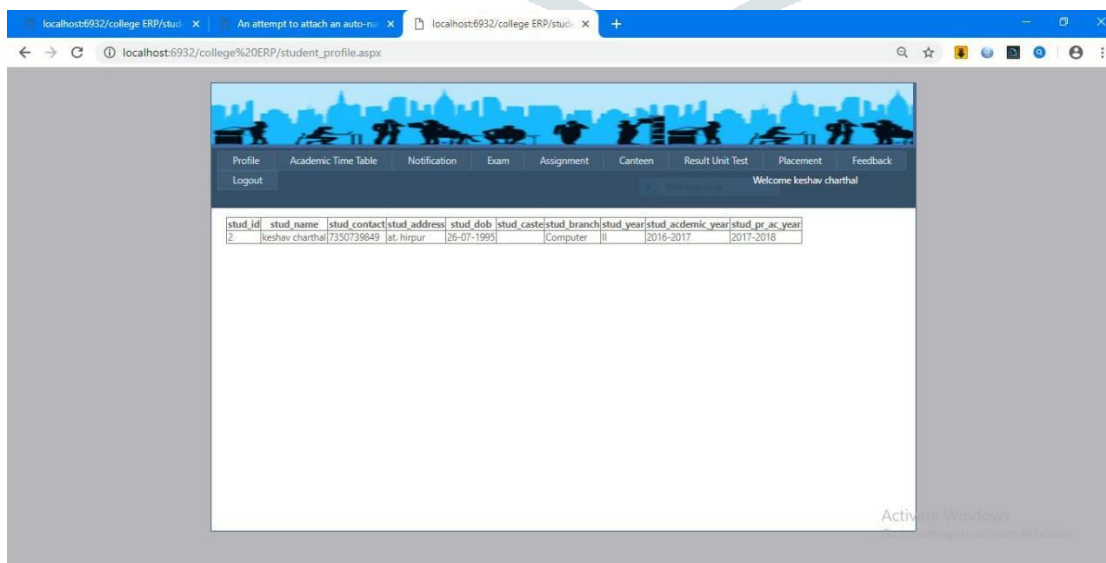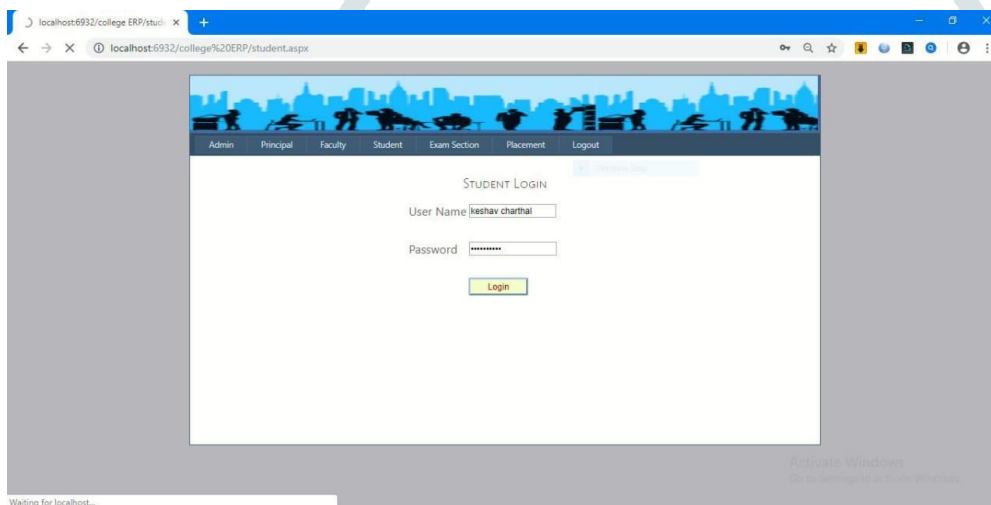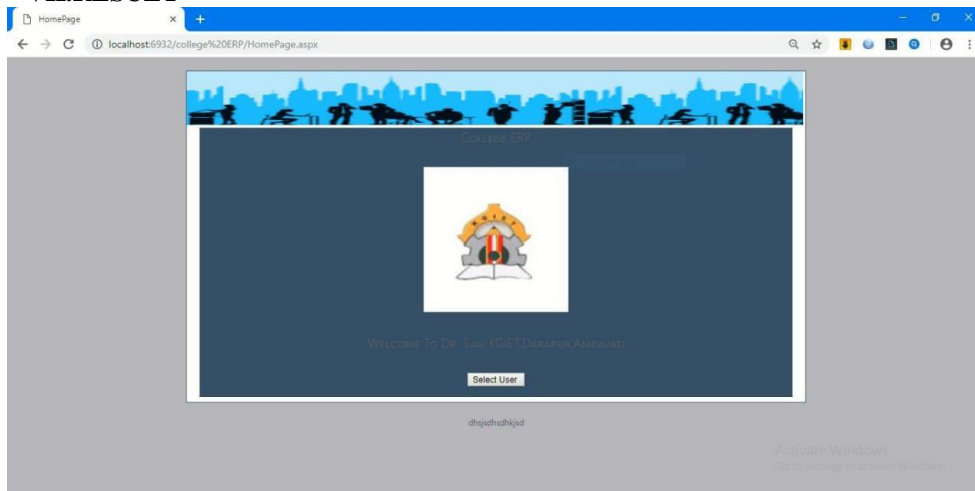
PRINCIPAL: This module checks student/faculty information. Then fee collection in record for student, those are faculty syllabus coverage is found out, placement, batch passes out student list, these over all data check.

VI. REQUIREMENT

Software: HTML, Java, JavaScript, Oracle10g, tomcat5.0, windows server 2003. Java Enabled Browser, ASP.Net.
Hardware: PIII or above with RAM of 128 or 20GB or above Hard disk.PIII or above with RAM of 128 or above MB,

20GB or

VII.RESULT

VII. CONCLUSION

An Android and web based application for College Management System is presented. The application offers reliability, time savings and easy control. It can be used as a base for creating and enhancing applications for viewing results, tracking attendance for colleges or any workplace. Students and their parents will also view results, attendance and curriculum details using this application. Also students can view details, notifications anywhere and anytime. The application will greatly simplify and speed up the result preparation and management process. It provides high security and a system that reduces the work and resources required in traditional process. The proposed system provides the new way of computing and displaying an operation with responsive and attractive user-interface.

REFEENCES

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