

A Survey on College Automation System Using Java Methodology

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ABSTRACT

The College Automation System Project will work on the college area network. It will include all the departments in the college. It will have an admission system for class attendance, online notes, notice boards, and placement systems so that their students can get all the information by using their valid registration ID and password. Let us see how this College Automation System Project will work. The College Automation System Project will also help the college administrator. The administrator will be able to get all the information about any faculty members on a particular day and time. The admin panel will also be able to edit the login display panel of teachers, staff members, students, etc. Admin can add students, remove students, and can give special permission. Admin can schedule classes during their lecture time. Teachers can get information about any students in their style. Teachers can also query by using grades and percentages and see a list of students who come under the category of attendance shortage and many more under this one roof. For the student section, they can get any teacher's notes of a specific day and other information about their campus, such as placement session details, upcoming companies in a specific month, their criteria, their venue details, and many more. The student section will also include a learning section so that students can prepare for their exams.

KEYWORDS: Training And Placement, Similarity, Student Data, Grade, Percentage

1. INTRODUCTION

The College Administrative System is software that helps the students, faculty, and admin of the college. Our College Administrative System can store the details of the students and the teachers and keep their details in a dynamic order. This software can aid us in discovering all the activities that take place in college that we, as students, are unaware of. It can handle the details of students, teachers, and heads of the departments. The HOD could keep track of every detail of a student in his department in this system. He could post any notice that pertains to his department and grant student attendance and allowance to attend the examination. In the case of a student, the name and the department of the student's department will also be displayed in the question bar. This system supplies a detailed structure of the departments of the college and the facilities of the college. Our system synchronizes the work of all departments.

2. LITERATURE SURVEY

This [1] system has come with more functionalities to supply and manage all the data/ information of the students. In this system the administrator should manage all the activities and supply all the details to the user. The administrator takes responsibility for the system to ensure data security and supplies data integrity. In this system, students will get all the information related to their college like exam details, study material, notes, Previous year question papers, exam form notices, University notices admission details, etc. In this system, we also ease students to upload their documents which are stored on the cloud [2]. Whenever needed they can access. We are also supplying added programs to the students like video lectures, internship programs, online workshops, courses, etc. As we know, in today's market students must be paid for courses, and internships. In our system, we will give all the facilities free to students. In [3], this system faculties should be able to upload the details in the system. Faculties should play the role of admin in this system. They upload notices, exam forms, and study material. In this system, the admin should manage all the activities and keep the stability of the system. Admin should be able to add users, remove users, update the information, and manage and sort the database. In this system, students and faculties should be logged in through the mobile app. In [4], a method is proposed system where all the databases should be managed through the cloud. In cloud computing, we can store data through Microsoft Azure, SQL Database, Amazon Services, Xeround, Dynamo DB, Relational database services, Google Cloud SQL, and ClearDB all these options that capabilities to store large amounts of unstructured text, video, audio and input etc. This paper helps to understand the actual system and supplies the end user navigation to the application [5]. Data could be stored and retrieved. This model supplies functionalities for students to take part or enroll in various courses also students can ask their doubts in this system. In the future, we will try to upload the university results, online exam fee payments, etc. The main aim is to reduce the manual system. Gradle is an open-source build automation system that makes it easy to add third-party libraries with one lineup code. Gradle is mainly used for Android software development using Java, but there is always Groovy and Gala plugins [6]. Android Studio supplies code editing, debugging, and testing tools which are easy to drag and drop interface. The emulator runs Android apps on a computer. According to [7] It is a well-known fact that the placements are crucial in the professional life of a graduating student. The need for high-quality output from academia needs that students be equipped with the requisite skill set to be industry ready. This paper briefs about the training sessions done at SDMCET-Dharwad, for aiding the students in campus placement drives. Also, this paper deliberates a unique approach based on fuzzy logic for measuring the effectiveness of training sessions in terms of various dimensions namely program pacing, quality of content covered, and interaction with students. The fuzzy controller is built using the Mamdani and Sugeno style of inference engines. The design and simulations have been done using MATLAB and Simulink software. According to [8] the work proves how to use earlier network expert demonstrations of UAV deployment to automate the drone's placement in civil applications. Optimal UAV placement is an NP-complete problem: it requires a closed-form utility function that defines the environment and the UAV constraints; it is not unique and must be defined for each new UAV mission. This complex and time-consuming process hinders the development of UAV networks in civil applications. We propose a method that uses earlier network expert solutions of UAV-network deployment to learn the expert's untold utility function from demonstrations only. This is especially interesting as it may be difficult for the inspection expert to explain his ability in such a function as it is too complex. Once learned, our model generates a utility function that maxima match expert UAV locations. According to [9] there has

been significant interest in the development of wireless train control systems. Among those, communication-based train control (CBTC) systems are new-generation rail signaling systems, aimed at achieving real-time, automated train control through wireless communication between the train and a network of access points (APs).

3. SYSTEM ARCHITECTURE

Functional requirements are the function or features that must be included in any system to satisfy the business needs and be acceptable to the users. Based on the functional requirement that the system must work. In the proposed system, the system should be able to perform Tracking and marking student attendance by facial recognition in specific time.

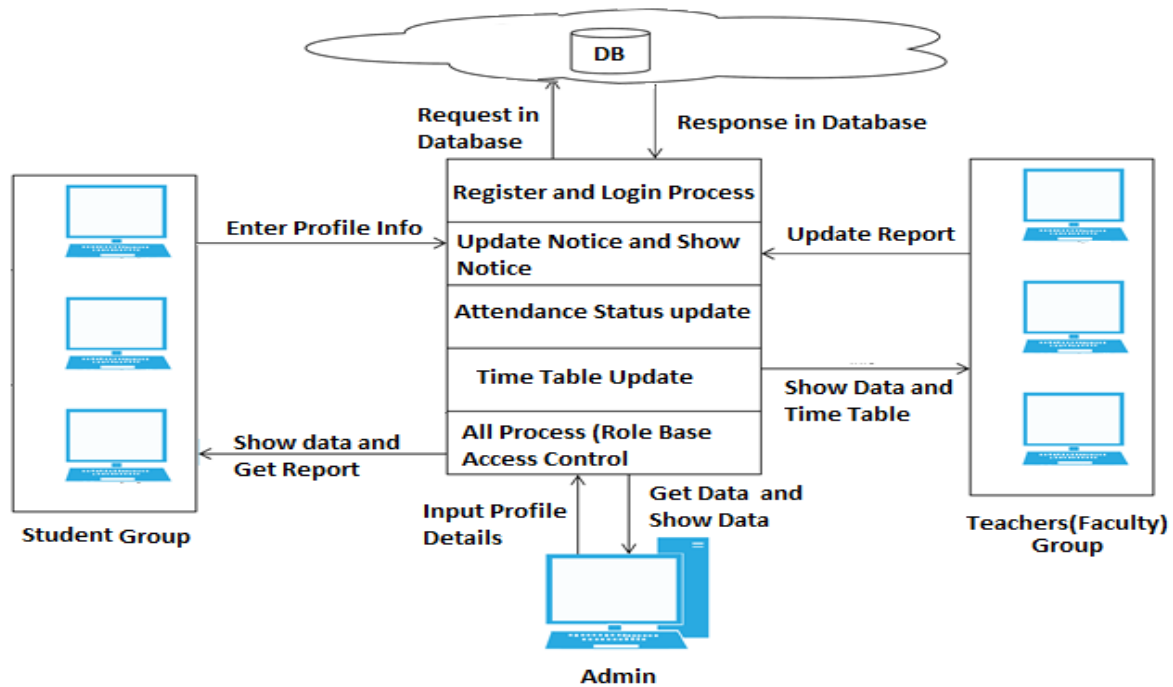


Fig 1: System Architecture of Proposed System

List of Modules and Functionality

Student: Student can view their own marks, attendance status, timetable, notice details, assignment information etc. Students have only read only access for entire application.

Faculty: Faculty can update all information such as marks, attendance, assignments etc. The uploaded information by faculty can view all three entities. Using the RBAC algorithm we define the access control of published data to the end user.

Admin: It is the expert module that can add, update, and remove entire application information. He can also view all information such as attendance, marks, timetable information, notice etc.

4. SOFTWARE AND HARDWARE REQUIREMENTS

Front End

- Operating System: - Windows XP/7/8.
- Programming Language: - Java
- Tools: - Eclipse or Higher

- Database: - MySQL

Hardware Requirements

- Processor: - Intel Pentium 4 or above
- Memory: - 2GB or above
- Other peripheral: - Printer
- Hard Disk: - 500gb

5. CONCLUSION

The development of a College Administrative Web Application using Java technology offers numerous benefits to both administrators and students. This application streamlines administrative processes, enhances communication, and supplies a user-friendly interface for students and staff.

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