Student Assistance System

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Abstract

Previously it was very hectic and tedious job to store students record manually. Now no need to maintain number of accounts for sharing information and all college related news, now it will be accessible anywhere anytime just on a single click on your android device. Just install "Student Assistance System app" on your android device and you can access all notices of your college in an easy and efficient manner. Now a day with the use of android phone every work can be optimized and modified. Our aim is to optimize the work of faculty member through our application.There is however a primary need to enhance the quality of higher education and understanding among the youth population. For simple improvements, creative teaching methods and efficient learning progression used by universities will draw a lot of attention from young students. In colleges and universities, eLearning is a vibrant trend. The key benefits of this study will be to motivate learners to use mobile teaching tools application for effective learning, jobs, projects , assignments, Presentations and so forth.

Keywords: Department student management system, java, xml, android, college application, students, staff, teaching tools.

I. INTRODUCTION

We're in the midst of the next digital data surge. Details are readily accessible on mobile devices today. Gone are the days on which colleges used different data processing registers. This technique generated huge quantities of data that had to be manually stored and processed; this had a significant effect on the overall system's performance. This Project "Student Assistance System" is a Online Based Application Project that maintains all the activities related to dept. For students in this filed, there are many services of application that are required. The majority of these are new session schedule, classtime table, testschedule, new semester registration, examination form new enrollment, study materials, real-time attendance status, outcomes, facilities such as laboratory, workshop, gym, classroom, smart class, Wi-Fi, library, etc. This App provides time to time event information related to dept. It also provides facility for sending notifications once any change has been occurred. This system can be used for managing the student and faculty details at a single place. This

system reduces the time and cost and provides facility to retrieve all student information according to requirement. It can also maintain the dept activities related information,

latest news display etc. User can view TimeTable, Post Questions and get Answers, Staff can post Notices, Question banks can be posted in Study Section. When a student requests a course completion certificate, for example, several specifics about the student must be verified, including his name, registration number, year of study, exams taken, and other information. As a result, it is necessary to contact all of the modules, which include the office, department, review, and student results. This project is beneficial because it has a simple user interface. The framework makes use of advanced database management, data storage, and data manipulation capabilities.

II. EXISTING SYSTEM

Previously, we had to keep track of it manually. If any event is to be organised by going into each class and making announcements, instructions and information must be given. If a student had a question, they needed to go to college to find a teacher and then work on their concerns.

III. PROPOSED SYSTEM

There are several administration divisions in every institution for managing college details and student databases. All of these divisions have separate student records. Most of these track records need to hold students info. This information may be general details such as student name, address, performance, attendance etc. or department-related detailed information such as data collection. All College Administration modules are interdependent. They are manually controlled. So they need to be streamlined and standardized as other modules will need knowledge from one module. Faculty and students get their related notices and can be viewed by them. It achieves high and quick organize between instructor, faculty and students. It saves time, effort by connecting Android application to the educational database of the university using latest technologies.

- Students can easily access timetable, college map, and various other features.
- Also, if there is any notification/Announcements, they can get that through sitting at home.
- This app also includes a chat section for students and teachers, and they can directly solve their queries.
- They can also get notes and reference books in the

application.

IV. LITERATURE SURVEY

This paper proposes a framework based on android application for student work management. The program primarily organizes tasks such as approval for student leave, group alerts, staff/teachers question section, and other functions. Using their project platform, we tried to make use of all the functionality they offered. It gave us great support in designing the project.[1]

This paper researched on how smart phones are changing lifestyle.They developed the Mobile Engineering Eduaction (MEE) app which provides facilities such as effectual learning, online homeworks, assignments, presentations, and so on. They also provided online teacher interaction facilities.[2]

The main goal of their project was to digitize and reduce the amount of time needed for college records to be maintained. They developed a multi-platform system for college management, in which college staff can conduct online paper checking, display attendance module, placed online student notices and assignment module, where college staff can publish question bank for student.[3]

This paper has attempted to address the basic problems of the college management system with an online interface. They have offered a support tool to direct any new student on lecture halls, office, library, laboratories and college faculty. Students can display their syllabus, schedule and attendance on this app.[4]

They suggested a program that allows teachers to post notes and track attendance. Each student, teacher, principal will have their unique credentials to login with. Then there are parts where it will upload notes, send event notification and much more.[5]

V. HOW IT WORKS
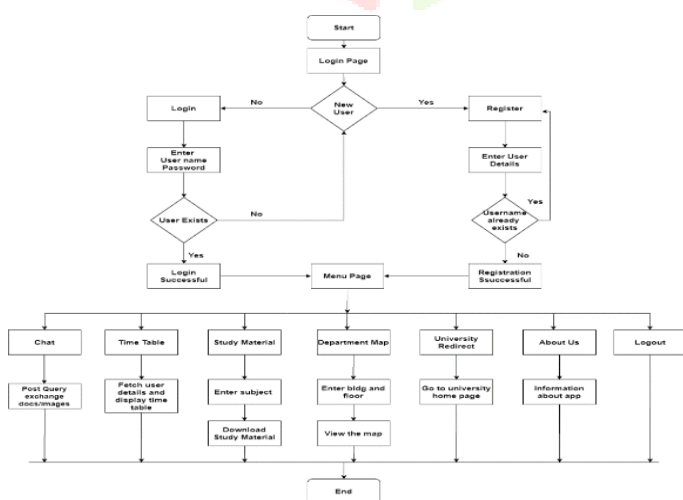
a. Register Student info into the Database.
b. A Unique ID And OR Code is generated for every Student for Login And Identification Purposes.
c. Students can view Time Table whenever they want just by click of a button.

d. Time Table is fetched from database so making changes is easy and secure.
e. Teachers can post Notice / Question Banks and other useful stuff.
f. Students can ask questions which other students can also answer.
g. Only the College Staff and Selected Students will be able to post Notice and other Important things.
h. College Staff can do important announcements.
i. Every user gets a notification when something is changed such as Time Table / Post Notice / Questions etc.

VI. METHODOLOGY

Architecture

User - User downloads the app. After opening the app he interacts with the Graphical User Interface(GUI) is installed. He will first have to register with the app, after registration and confirmation he will be allocated an account where he will be able to view timetable, department map, upload study material, access study material uploaded by others, clear their doubts by chatting directly with the college staff and much more.

Front End - Entities that do not store user data but need to access user data are called Application Front-Ends (FE). These Front-Ends enforce the application logic for managing and processing user data, but they do not retain any user data permanently. Front end duty is to collect user data and pass the data to back-end. Backend acts on the data, process and store data for future retrievals and return the processed data to the user. This is how it shows the data. FE contains forms, various other UI elements such as login, time table view, department map, etc. It allows the user to create and store their data on application.

Internet / LAN / Middleware - It transfers data from Front end to Back end. Mainly HTTP protocol is used .

Back-End - All of the technology needed to process an incoming request, create, and submit a response to the client is referred to as the back-end.

This typically includes three major parts:

1. The server-This is the computer that receives requests.

2. The app- This is the application running on the server that listens for requests, retrieves information from the database, and sends a response.

3. The database- Databases are used to organize and persist data.

Server - A server is nothing more than a machine that listens for requests. Even though there are devices specifically designed and programmed for this purpose, any device that is 16 connected to a network will serve as a server. In reality, when creating apps, you'll often use your own computer as a server. The server runs an application that includes logic for responding to different requests based on the HTTP verb and the Uniform Resource Identifier (URI). A route is the combination of an HTTP verb and a URI, and routing is the process of matching them based on a request. Middleware

can be included in some of the handler features. Any code that runs between the server receiving a request and sending a response is considered middleware in this context. These middleware functions may change the request object, query the database, or process the incoming request in some other way. Rather than sending an answer, middleware functions usually end by transferring control to the next one.

Database – Databases are commonly used on the back-end of web applications. These databases provide an interface to save data in a persistent way to memory. Storing the data in a database both reduces the load on the main memory of the server CPU and allows the data to be retrieved if the server crashes or loses power. A database query can be needed for several requests sent to the server. A client might request information that is stored in the database, or a client might submit data with their request to be added to the database. Server comes with a number of plugins that help run the code in various languages such as PHP, JavaScript , Python, and more. The encoding and serving of the requested data by and for the Front end is the responsibility.
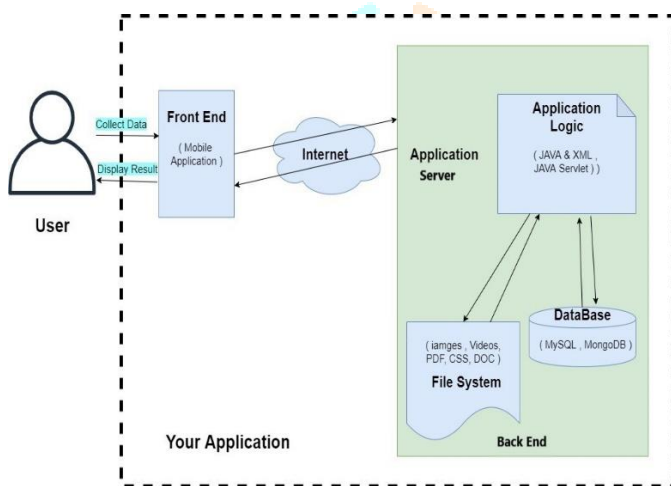
This architecture mainly comprises of 3 components- user,application and database. Database has two parts database Access and remote Infrastructure.

Database Access- Database is a collection of information. In Access, every database is stored in a single file.Databases in Access are composed of four objects: tables, queries, forms, and reports. Together, these objects allow you to enter, store, analyze, and compile your data however you want.

Remote infrastructure - RIM refers to the process of remotely tracking and maintaining IT resources (data center, networks, email, devices, storage, ERP, OS, security, servers, support, database, applications, telephony, and services) with the ability to take corrective measures to ensure continuous availability. With RIM, an administrator needs to make on-site repairs only when hardware fails.

VII. APPLICATIONS

Easy Maintaining of Departmental Activities. Paper-Less Documents. Easy File Sharing and Downloads. Easy to use User Interface. Easily ask Questions and get Answers. Easily post important Notice. Share any type of documents such as Questions Banks, PDFs etc.

VIII. RESULTS
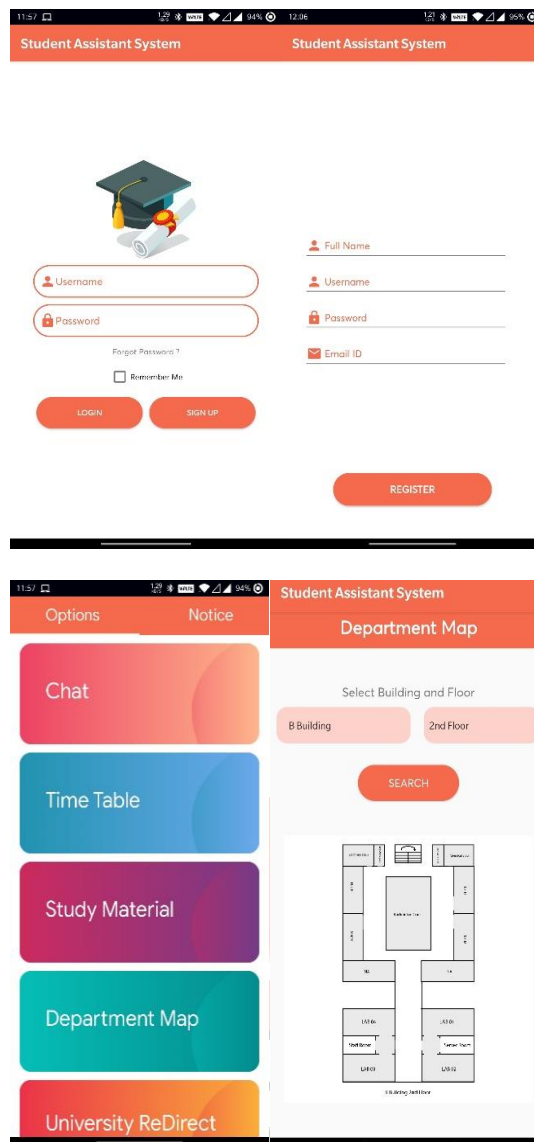
IX. CONCLUSION

Smart mobile-based learning for young students is always enthusiastic and time-saving work. Since students use good smart phone devices in developing countries, the concept of designing smart mobile apps and learning software works well by attracting the young student population. The suggested model is also one which would act like a magnet for students. The maximum part of implementation using the android development platform has been completed and the remaining modules will be completed in the future.

These app is designed for student assistance system. These proposed student assistance system is organized in a hierarchical way including chat system for students and teachers, events and notes can be shared using these application, manual workload can be reduced using these application. We can get digital centralized data. reference books and notes can be accessed directly using these application.

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