SCHOOL INFORMATION SYSTEM

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ABSTRACT

Student admissions are a vital part of any educational institutions because students are what keep institute alive. A poor admission system can mean fewer students being admitted into a school. The main principle behind this system is to supervise parents about education system. It can handle the details such as academic details, activities, achievements, strength present, etc., of different schools in single platform. So that it is easy for parents/students to know the details of school and get admit without any trouble. School Information System is a web enabled application developed in PHP and powerful MYSQL database backend. To implement this system, admin do not require expensive hardware and software, all need is internet connection and desktops. Our system works as a centralized database and application that admin can easily access the system from anywhere based on the login credentials. It is a platform independent system that virtually any user can access from anywhere through a standard internet accessible system. We can also customize details for individual school needs. School Information System helps Students get the most accurate information about schools to make more effective decisions while taking admission. Teachers and administrators gain time in admitting more students. It also helps administrators to increase their scale. This information system is an application-based system, having two applications developed, one for teachers to manage teacher details and another for students to mark their details . Every organization whether government or private uses an information system to store data of their staff. However, in India it is found that many small scale industries or colleges use pen and paper to keep a record. However, there are many advanced technology systems available that can do this work but they all are costly for these low level industries. This project is useful for easy user interface. The system uses the powerful database management system, data retrieval and data manipulation. This project provides more ease for managing the data than manually maintaining the data. Hence it saves the lot of time of ours also. So we can say that the project is useful for saving valuable time and reducing huge paper work.

1. INTRODUCTION

Education system forms the backbone of every nation. And hence it is important to provide a strong educational foundation to the young generation to ensure the development of open-minded global citizens securing the future for everyone. Advanced technology available today can play a crucial role in streamlining education-related processes to promote solidarity among students, teachers, parents and the school staff. Education is central to development. It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth.

In order to facilitate and simplify the actions one of the major tool is to have school Information system. School Information System consists of details such as academic details, activities, achievements, total strength of school, transportation details, School Infrastructure. Website is the utilization of technology to replace human with a machine that can perform quickly. The system provides the means of security, which makes sure that only the concerned modules and screens are accessible to the particular department after verifying one's validity and all other modules and screens remains disable. The system is meant to maintain and provide complete details about schools such as academic details, activities, achievements, total strength of school, transportation details, School Infrastructure, fees details and class details. The basic objective of the system is to manage the school's data efficiently and accurately. It provides the user of the system with personal details of the student their name, email address, phone etc, it provides the user with activities, dashboard regarding school performance, about school along with images and contact details. This system will be highly user friendly and management information system that will not help only administrative system to gather more students and communicate, computerize but also help to act on critical information much faster and in a better manner. The solution envisages linking of different departments to streamline the flow of data and timely availability of information at both the ends. Further, it also aids in generating, maintaining user definable Queries, Reports.

Features of the application will be as defines below:
• To build a responsive website to check the different school activities.
 • To provide complete details of school
 • To facilitate the process of courses and classes.

1.1 Objectives

Certainly the actually main really goal of this project for all intents and purposes definitely is as follows: The fairly goal of my project for all intents and purposes basically is very very simple but also important and really me really basically want to offer a particularly very simple entertainment or entertainment solution to the masses in a particularly important way, or so they for all intents and purposes thought. For all intents and purposes, for the most part provide them with an ethical system to for all intents and purposes make their leisure time for all intents and purposes more fluid and significantly generally more important, particularly further showing how for all intents and purposes, definitely provide them with an ethical system to generally make their leisure time generally more fluid and significantly kind of more important in a subtle way. Users really can connect to the system in different way , which will help them enormously. The main objective of the School Information System is to manage the details of Profiles , Courses , Logins, Exams, Marks, Fee. It manages all the information about each student. The control of this system is given to teacher. The project is totally built at administrative end and thus only the administrator is guaranteed access.

1.2 Scope of School Information System

The system is aimed at total user-friendly as well as efficient management of varied tasks. These tasks may range from registering new students, managing fees payment, examination management to all the essential features necessary for making the administrative division of school effective. In modern times, facilities offered by schools are not limited to basic functioning instead , the authorities have been looking for advanced system. In order to cope up with all these factors, the school information system was developed and nowadays, it has even been recognized by most of the Indian schools or colleges. As a matter of fact , this system based on smart technology has become an integral part of many schools. At this segment , it is very crucial to discuss the purpose served by School Information System before proceeding. To begin with, the school management system is basically manufactured to compile all manual activities of administrative importance in the form of software.

2. LITERATURE SURVEY

There are numerous educational institutions in India. However, relatively few institutions are updated and employ software to handle their day-to-day operations. There are over 1000 schools in Bengaluru, as well as more than 300 pre-university colleges and degree colleges. Most of these academic institutions still rely on traditional management methods, which mostly involve paper work and a great deal of human labour, resulting in a great deal of stress and frantic work. Students admitted to universities that rely on traditional methods of management face significant challenges in obtaining a certificate or other papers. The administrations of those institutions must also hire a large number of people only to keep track of the documents needed to oversee and support their operations.

2.1 School Information System Strategy

Today's schools need to manage their system to get more admissions than ever before. Without a solid internal infrastructure for teachers, headmasters and departments to share data, critical school and student information can be lost, or worse leading to a host of problems that can effect of a school's image and endurance. To remain competitive, school needs a simple solution that can run individual function, connect their entire operation, use the web as a key communication tool and simplify day to day operational responsibilities to get more admissions. Login/Sign Up, Dashboard, Viewing of results, attendance, courses and students progress are just some of the features and functionalities of the web application.

2.1.1 System for Management

• Single points school management software
• Manage multiple campuses.
• Enable internet front-end for the school.
• Manages all administrative records with zero redundancy
• Achieve best possible resource optimization 4

2.1.2 System for School administrative

• Complete marks/grade details should be provided to admin
• View analytical reports and details
• Email and Internal messaging system.

2.1.3 My School for Parent

• Get latest updates about school through image Gallery

• Get connected with schools effectively and easily

• Interact with teachers through internal messaging system.

• know the complete details of school

• Get multiple schools at a time

2.2 Gathering requirements Before beginning any project,

the needs must be gathered and the viability checked. If the requirements are doable, the project can be continued. Stakeholders gather all of the requirements needed to build and implement the project during this phase, which are then communicated to the project's developer and designer. .

• **Student Management Service:** The student can use this service to check their attendance, progress report, and results, as well as send requests for any required documents, view notifications, examine timetables, and view and submit assignments. Students have the opportunity to provide comments on the teacher's performance in class.

• **Course Management Service :** The administrator will be able to add, amend, and delete courses using this service. The administrator will also be able to add, alter, and delete the course's subjects. Only the administrator's courses are visible to the teacher, guardian, and students. 5

• **Attendance Management Service :** Using this service, administrators will be able to submit, edit, and delete student attendance based on the course and class they are enrolled in. The attendance is only visible to the teacher, guardian, and pupils.

• **Administration Management Service :** The administrator will have full access to all resources in this service. The administrator can send out notifications by email, 17 SMS, and push notifications. The administrator has the ability to add, update, and delete student, guardian, and employee information.

• **Document Management Service:** The administrator can use this service to upload documents such as students' grades, ID proofs, subject syllabuses, payment receipts, certificates, and a variety of other papers that are necessary for the proper operation of the institution's academic and financial activities.

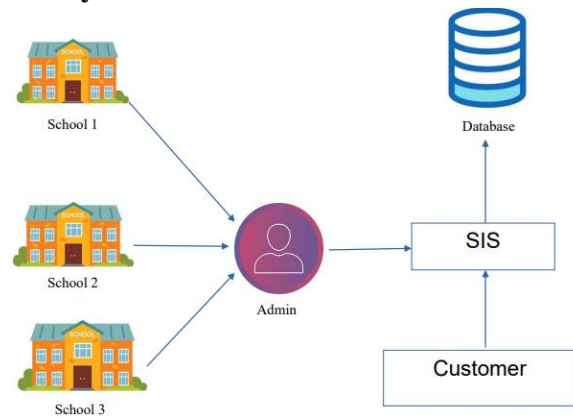## 3. SYSTEM DESIGN

3.1 System Architecture

Fig 1 : System Architecture

There are two modules in this system :

1. Admin Module :

• Upload and Modify - Admin can upload the details of schools and also modifies it.

• User Details - Admin can view the users those who have registered.

2. User Module :

• In this module, Customer refers to students/parents.

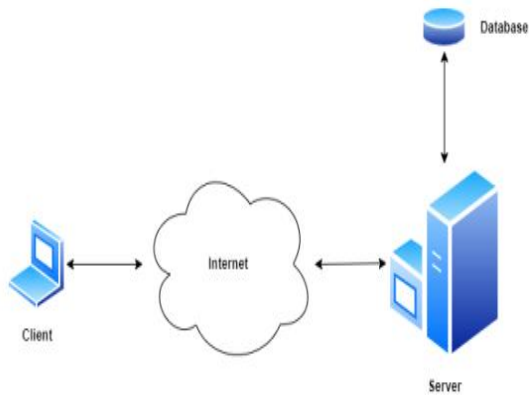• User can register their details like name, password…

fig 2: Three tier Client/Server

The architecture used for the system is a 3 tier Client/Server Architecture where a client can use Internet browsers to access the online report provided by the system any where using the Internet. Figure 4.1.2 shows the architecture of the proposed system. The data tier maintains the applications data such as school data, user data etc. It stores these data in a relational database management system (RDBMS).The middle tier (web/application server) implements the business logic, controller logic and presentation logic to control the interaction between the application's clients and data. The controller logic processes client requests such as requests to view school details or to retrieve data from the database. Business rules enforced by the business logic dictate how clients can and cannot access application data and how applications process data. A web server is a program that runs on a network server (computer) to respond to HTTP requests. The most commonly used web servers are Internet Information Server (IIS) and Apache. The web server used in this system is IIS. HTTP is used to transfer data across an Intranet or the Internet. It is the standard protocol for moving data across the internet. The client tier is the applications user interface containing data entry forms and client side applications. It displays data to the user. Users interact directly with the application through user interface. The client tier interacts with the web/application server to make requests and to retrieve data from the database. It then displays to the user the data retrieved from the server.

Activity diagram:

The process flows in the system are captured in the activity diagram. Similar to a state diagram, an activity diagram also consists of activities, actions, transitions, initial and final states, and guard conditions.
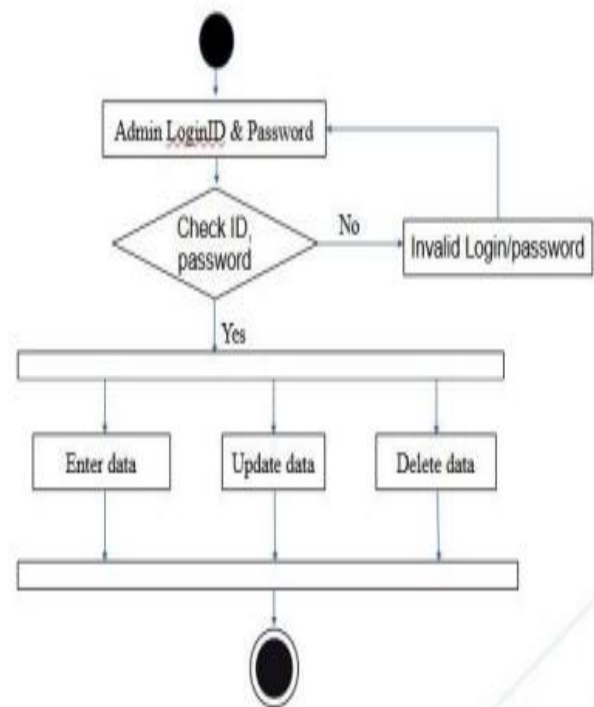

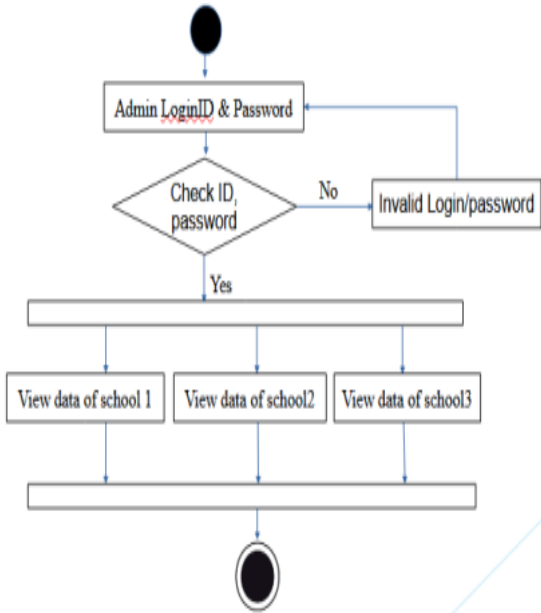Fig 3 : Activity Diagram for admin
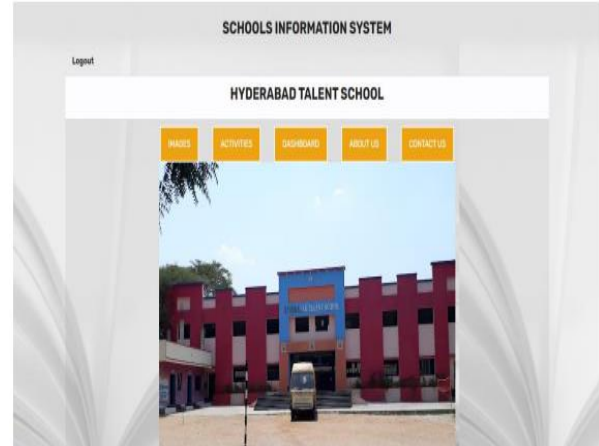
Fig 4 : Activity Diagram for User

4. OUTPUT SCREENS

➤ **User Session**

Fig 5: User Login

This is the page of user login. New User can also use signup to generate credentials and use those for login.

Fig 6: User Index Page

As soon as the User logins he land to this index page where we can options where they lead us to new pages.

Fig 7: Images of School

This page shows the images of school, where user can see the infrastructureof the school.

Fig 8: Activities and Achievements

This page details the details regarding the activities and achievements won by the school.

Fig 9 : Dashboard

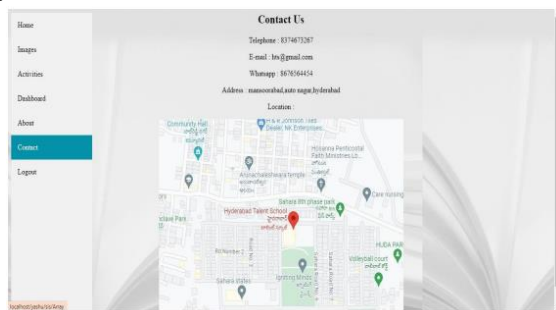This page shows the dashboard of student performances on different bases.

Fig 10: Contact Details

This page shows the contact details of school along with the location guideance.
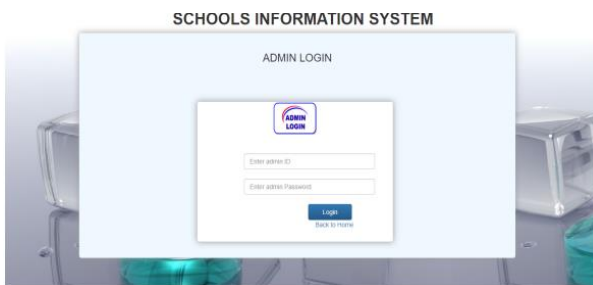
➢ **Admin Session**

Fig 11 : Admin Login

This page is used by admins to login using their credentials.

5. CONCLUSION

In this project, we developed a school Information system that facilitates the various activities taking place at schools. This system is the project of web application .All details of school are collected by and finally the result is stored in a database. It has been shown that the system effectively registers students along with parental information, easily retrieves information about a student and generates the required reports. A School Information System plays a crucial role in modern educational institutions, streamlining administrative tasks, enhancing the overall learning experience. In conclusion, it is an indispensable tool for schools, enabling them to manage data efficiently, empower educators, engage parents, and support student success. As technology continues to evolve, schools should adapt and invest in robust information systems to stay competitive and provide a high-quality education for their students. It's usually a good idea to go with a school information system that's built on a current system architecture to keep up with changing needs. This system should include well organized data coding and clearly defined business applications. The system's overview elucidates the convenience of exact data delivery at the tip of your fingertips, increasing student retention and teaching them how to manage their time effectively. The proposed method is efficient and user friendly, based on the results of the experiments and tests. In comparison to current methods of managing academic institutions, this project, which produces centralized software, makes work administration and management easier and gives full information about the issue of users' interest with just one mouse click. An easy-to-use user interface centralized software can be offered to the educational institution, allowing all services linked with the university to interact with one another and share data. The user will be able to

access the resources from afar because this is a ReST API . Because the application is built with a micro service architecture and agile methodology, services can be added in the future. The prototype has been tested with data from Kokebe Tsebah Secondary School. It has been shown that the system effectively registers students along with parental information, easily retrieves information about a student and generates the required reports such as transcript, report card and timetable. In addition to generating a feasible master timetable it produces a timetable for each teacher.

6. FUTURE ENHANCEMENT

To enhance the efficiency of the system, in the following we have listed some recommendations and future works. As education is central to development there should be a good facility to make stakeholders participate in school improvement programs and decision making. Parent and Education Bureaus from Kebele and Kifle-ketema are among the stake holders. To facilitate easy information access to such bodies the web application could be further enhanced by incorporating additional reports required by Kebele and Kifle-ketema Education Bureaus. Such facilities will increase participants in decision making at educational activities and students achievement. We also believe that timetables should be flexible. In real world situations there are preferences. A restriction of the sort that every teacher should have some specific free periods or some part of days off requires an efficient search technique. Efficiency of the timetable could be further enhanced by improving the search technique so that such constraints as

preferences could betaken into consideration. The project's future potential is enormous. In the future, the project could be deployed on an intranet. Because it is quite versatile in terms of expansion, the project can be upgraded in the near future as and when the need arises. The customer may now manage and thus run the complete task in a lot better, accurate, and error-free manner now that the planned database Space Manager software is ready and fully functional. The following is the project's future scope. In the future students may also be able to post or download notes in the future. There will be a few little modifications here and there to make the app more visually appealing, as well as statistics, tracking, and analytics. For significantly more, the entire project will be made available as an Android app. Artificial intelligence's contribution to several fields is growing all the time. So in the future we will be using some machine learning algorithms in application, to make it more efficient. Bar code reader based attendance system will be used in future. Since it is more secure and efficient for teacher to access the details of any student. In future student can be login using the id or photo. We should continue to think on what is happening and consider whether things could be made better. 35

7. REFERENCES

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