

Education Workspace Application (EWA) Mobile App for Managing the Students Information Developed By Java

Dhivya S.^{1*}, Merlin Jancy², Arul Kumaran³, Arun pandian⁴, Bhuvaneshwaran⁵

^{1,2,3,4,5}Department of Computer Science And Engineering, Sri Shakthi Institute of Engineering and Technology, Coimbatore, India

*Corresponding Author: dhivyasivanandha@gmail.com, Tel.: +91 9629757734

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Abstract - In today's environment technologies play a vital role. Nowadays college and school students require new and smart technology like smartphones which supports to get information related to applying for leave or OD, information about placement, attendance percentage etc. Though there are online tools like Google classroom which supports students and teachers by some facilities like to access lecture notes, quizzes, assignments, etc. But Google classroom does not support features like accessing information about their leave/OD, attendance percentage, no due, semester results, and other details. Maintaining the records of the university/school is becoming an aberration. The authorities/admin spend adequate time to maintain this records of the students. Not only the authorities but, even students spend most of their time for doing their regular and basic activities. This project provides a better way which eradicates the usage of paper. A mobile app which has all the facilitates through we can access of all academic-related details of the students and teachers.

Keywords :Mobile Application, Database management of the users.

I. INTRODUCTION

The operation of Information Technology has been in the lead of ultramodern education and operation. While online courses have developed a trend, not only online learners but instructors and administration are also making the stylish use of the Internet. Universities and sodalities of some countries around the world have espoused the practice of integrating interactive mobile operations into campus management systems (CMS). Compared with the traditional approach, CMS optimized with the effective mobile usage can. enhance productivity and ease the cargo of instructors, students and administration.

Currently, students and instructors can access the information through the internet. In some cases, due to lack of internet and when all the. Students try to log in at the same time the online operation slows down and it takes additional time for the recovery of the server. Hence, it's not effective because the information is frequently missed and just known by students after the deadlines are over. To avoid several aforesaid issues, smart technology is needed. In recent days, smartphones have become an organ of humans. Different programming platforms are available for developing operations compatible with smartphones. Google Classroom, a free web service, developed by Google. for schools/ colleges, aims to simplify creating, distributing, and grading assignments in a paper less way.

The primary purpose of Google Classroom is to streamline the process of exchanging files between instructors and students. Through Google Classroom we can fluently

update lecture notes, assignments, videos, conduct online quizzes, etc. But this platform doesn't support any option for maintaining students' attendance, academic results, and the. Leave/ OD request process.

The main focus of this paper is to develop an android application to ease students and instructors in an academic institution for maintaining attendance, academic results, and the Leave/ OD request process for students and instructors. This mobile app can save data in a phone database as well as a remote server database which ensures that the information will be secured and can access the data wherever and whenever required.

The rest of the paper is organized as follows, Section I contains the introduction of the project "Education Workspace Application", Section II describes the related work which where done previously, Section III contain the some measures such as methodology which describes the active participation and coordination of the team and flowchart and the proposed system, Section IV contains the details about the technologies used in it, Section V the results and discussion of the application, Section VI concludes research work with future directions.

II. RELATED WORK

Student Management System grounded on. Net Three-Level Arrangement Model:

The Pupil Information Operation system has been enforced by (Yang Qingshan, 2010) using Dot Net Architecture for better standardization, information operation, and three

level B/ S structure. This configuration improves the security and maintainability.

Implementation and Designing Using Visual Basic and SQL:

Likewise, a simplified friendly interface pupil operation system has been designed and enforced with the use of Visual Basic 6.0 and the SQL Server 2000. This system has a completely functional, flexible and accessible operation which provides a familiar interface to the users (Zhibing Liu, 2010).

The student's data system utilized in Sebha University:

This paper basically focuses on providing an easy interface for the straightforward collation and maintenance of all manner of student information. The creation and management of accurate, up-to- date information regarding students' academic careers is critical for students and for the schools and administration of Sebha University in Libya and for any other educational institution. A student data system deals with all types of knowledge from enrollment to graduation, including program of study, attendance record, payment of fees and examination results to name but a couple of. All this data got to be made available through a web interface.

A Study of Student Information Management Software:

This paper focuses on providing information to support the operation, management and decision-making functions of enterprises or organizations. In the face of a giant amount of data, it's required to possess the scholar information management system to enhance the efficiency of student management. Through this technique, the standardized management, scientific statistics and fast query of student information are often realized, and thus the workload of management is often reduced. In this document, a typical student data management system is going to be established to derive the systematization, standardization and robotization of student information relations.

Web Based Student Information System:

This paper focuses on a simple interface for maintenance of student information. The creation and management of accurate, up-to- date information regarding a student's academic career is critically important within the university also as colleges. Student data system deals with all relative student information, academic affiliated reports, details about the colleges and course, class, details about batch, placement and other resource related things too. It tracks all the little print of a student which may be used for all reporting purposes, tracking of attendance, progress within the course, completed semesters, years. Dissimilar records and questions are frequently generated supporting vast appliances related with students, batch, course, faculty, examinations, semester, documentations and indeed for the whole institute.

III. METHODOLOGY

Methodology of the project involves the active participation and coordination of all group members under

proper guidance, resulting in the best possible outcomes. It then includes the study of all the accessible domains and finalization of project topic, relating it with study of assorted factors like socials, capability of the group, knowledge about the project domain and application and most importantly the scope of achieving the specified work and products. Then it came to the study of literature and reviews of similar projects that were accomplished before. This was all included within the previous stage of the methodology.

The event stage included acquiring knowledge for the project implementation like the tools to be used and the algorithms to be utilized for completion of the project.

Later on, the flowchart of the whole project was formed and then the work was distributed equally among the members. After everyone completed their assigned tasks, we added a final touch to our project.

To implement the entire project we have used android studio and its emulator. XML is used to implement UI related data .Java is used in Android development to write the back-end logic or business logic. MYSQL is used as a database at the web server and PHP is used to bring data from the database

a. Proposed System

In the proposed system the user can access the information in an easy way which is through an app .The home page provides the login page using which users can log in to the system using their unique login credentials .The user can find the registration form in the login page for the new users .The admin is the one who can add the students and the faculty .The students can view their details through the app and the faculty can enter the details of the students and can assign the assignments for the students and also, they can view the information of the students and be allowed to download the certifications of the students.

b. Flowchart

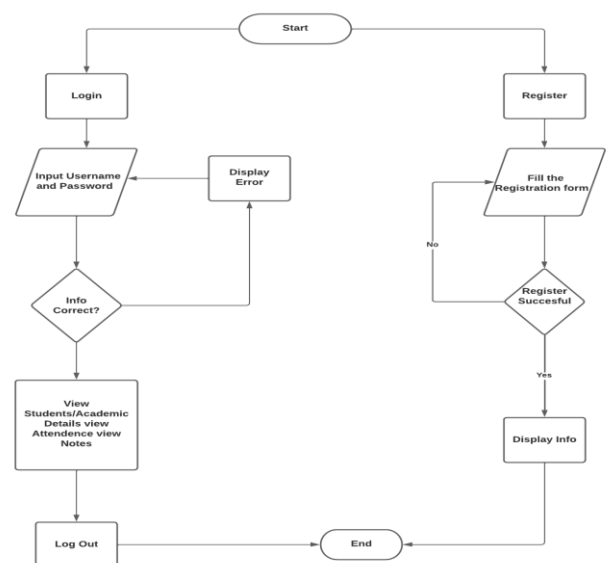


Figure 1.Flowchart OF EWSA

C. Data Flow Diagram

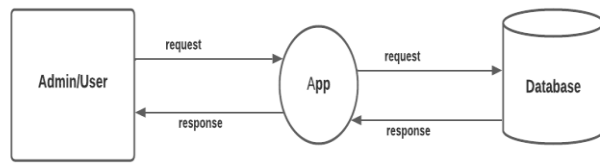


Figure 2. LEVEL 0 DFD OF EWSA

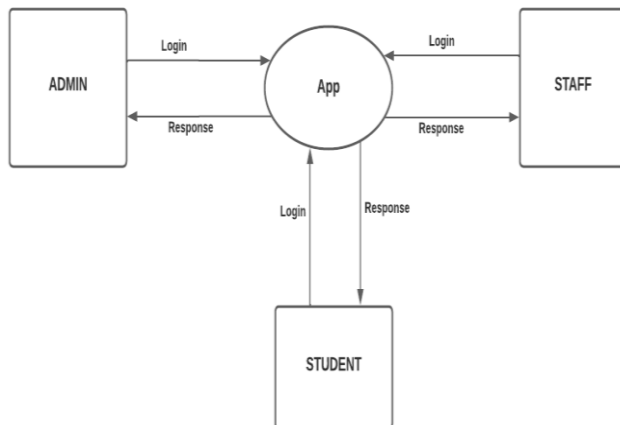


Figure 2.1. LEVEL 1 DFD OF EWSA

A. STUDENTS: The student is the most important factor of the college because in every college student plays a very important role. Students can access the information of college, attendance details, placement details, marks details, and their basic details. The college details contain the details of various activities of the college, which is like college timetable etc...

The overall attendance percentage information of the students is accumulated by the attendance. The required students can also apply for their leave or OD. Placement details contain the data of companies that visited the campus for the drive and the upcoming drives for the students.

It also provides a list of students who are placed in some of the companies. Students can view their exam mark details and analyze their performance and it will help them to improve their marks. Basic details contain the basic information of the students like name, roll, dept, etc...

B. FACULTY: In the faculty dashboard the subjects allocated for every teacher will be displayed and The teachers can mark the attendance of the students in the app. They can assign the assignments of the students and they can view the college timetables, the assignments which are uploaded by the students, they can enter the internal marks and semester marks of the based on the subjects, the placement details of the students can also be analyzed through the features of the app. They can also download the certification and mark sheets of the students.

C. ADMINISTRATOR: The administrator has the responsibility of handling the entire system for the staff and students. The administrator has an eye on each activity of the system. The administrator adds the new user to the system. He can update the basic details of the student like change in name, mobile number, email id, address, etc. He can remove the unwanted user. He updates the college details like event calendar etc.

IV. TECHNOLOGIES USED

Java

It's a common- design, class- grounded, object- acquainted programming language allowed for having lower perpetration dependencies. It's a computing platform for operation development. Java is presto, secure, and dependable, thus. It's extensively used for developing Java operations in laptops, data centers, game consoles, scientific supercomputers, cell phones, etc.

Java Platform is a collection of programs that help programmers to develop and run Java programming operations efficiently. It includes a prosecution machine, a compiler, and a set of libraries in it. It's a set of computer software and specifications. James Gosling developed the Java platform at Sun Microsystems, and the Oracle Corporation later acquired it.

PHP

Precisely, PHP is a veritably important garçon- side scripting language for developing dynamic web operations. Using PHP, one can make interactive and dynamic websites with ease. PHP script can be bedded straight into the heart of html law. PHP is compatible with colorful web waiters like Apache and Microsoft's IIS as well. All the PHP scripts are executed on the garçon and it supports colorful databases like MySQL, Oracle, Solid, Generic ODBC etc. Still, it's substantially used with MySQL.

MySQL

MySQL tutorial provides introductory and advanced generalities of MySQL. Our MySQL tutorial is designed for newcomers and professionals. MySQL is a relational database operation system grounded on the Structured Query Language, which is the popular language for penetrating and managing the records in the database. MySQL is open- source and free software under the GNU license. It's supported by Oracle Company.

V. RESULTS AND DISCUSSION

Home Page:

In our app the home page contains a type of the login process like login for faculties and login for students. By using this kind of process, the user can login into the app and be allowed to access to all the functions of the app.

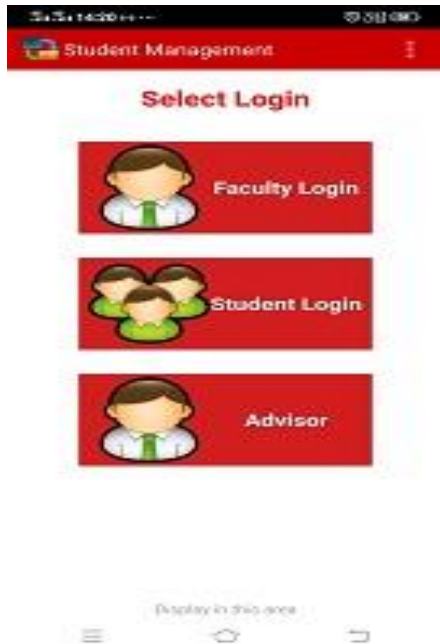


Figure 3.Home page



Figure 3.1.2 Faculty Login

Login Page:

By entering the username and password the user can login to the app . If the login credentials are unsuccessful the user can't be allowed to enter into the app and unable to access the functions that are provided by the app The users with correct login credentials only can login into the application.We also has the login features for the new users.

Dashboard: The dashboard contains the activities of the students

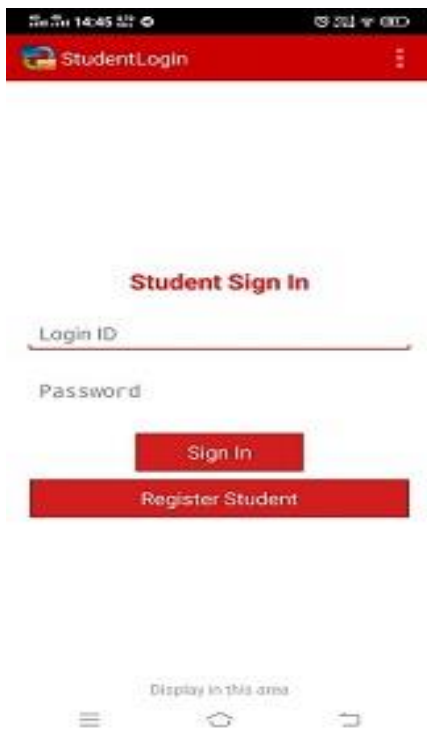


Figure 3.1 Student Login

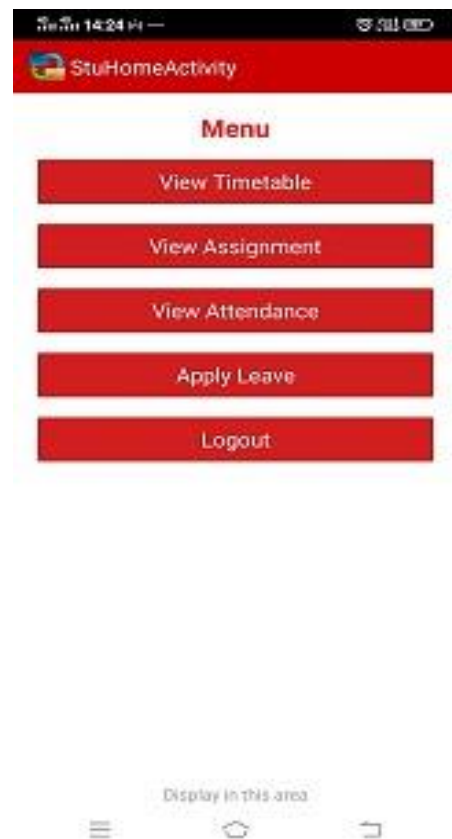


Figure 3.2. Dashboard

Students can apply leave/OD with the help of the below process

We have kept separate login for the faculty/instructor Which is shown below.



Figure 3.3 Apply for leave/OD

Faculty can view the details of the pupil/students once they made the request for taking leave/OD



Figure 3.4. View Leave Details



Figure 3.5 Advisor menu



Figure 3.6 Submit of assignments



Figure 3.7 View Assignments

VI. CONCLUSION

The project provides a mobile app that facilitates easy access of academic-related access for students and teachers and it emerged as the solution which provides better performance in all the way comparing to the the old system which are followed and which consumes more time .The proposed system is more effective and time-saving for the user.The system is designed in a user-friendly and the user doesn't need to worry about security the information is completely secured and has fast access to the database.

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AUTHORS PROFILE

S.Dhivya pursued Master of Engineering and currently working as Assistant Professor in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.



C.Merlin Jancy pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.



M.Arun Pandian pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.



S.Arul Kumaran pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.



R.Bhuvaneshwaran pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.

