

Android Application for Student Academic Information System

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Abstract: The technology has introduced a new process among students, teachers and parents that can be exploited and be used to improve the learning process. Therefore, a study was undertaken to know the impact of such an infrastructure, made possible by this platform (Android), on the learning process among candidates. This system will introduce and improve interactivity, accessibility, and convenience in the learning process. Overall, the student academic information system application can be utilized as an inexpensive but potent tool that compliments the learning process.

Keywords—Android, SQL, JSON, php- my-admi, Mysql workbench.

I. INTRODUCTION

The proposed system is an application that is designed to manage and handle the operation of an institution. It is a strongest combined platform that connects various entities of the organization, namely Admin, Staff, candidates and other specialized modules. It is a portable application that can be used by the candidates, staff and the administrator to facilitate communication.

The students can view the marks only if they are authenticated. They do not have the authorization to change or update the marks. The front-end will be eclipse (client side) validation where all the coding's related to it will be in Java language which is located at Centre mostlayers. And the layers will communicate with third layer of database, which will be MySQL database. The web server will be PHP wampserver.

II. PROBLEM DEFINITION

Today all the work regarding candidates is done manually by pen and paper, which is very slow and consuming many efforts, time and much complexity. Since the numbers of candidates is growing, and organization has to handle records of all the candidates, it is complexity in managing the details of candidates.

It is required to Design of a computerized student academic information system, to speed up and make it easy to use system.

III. METHOD OF SOLVING THE PROBLEM

- ❖ It is an Efficient User Interface Design as all the information taken care while designing. It is User Friendly.
- ❖ The Application is secured as all major threats are considered and all necessary measures are taken in the application.
- ❖ Smart User Management system as it assigns different process to the different users. Not only this, you can manually set the parameters for individual users.
- ❖ Very few Modules keeping in mind and all the requirements with separate login for students, parents and for administrator in php.
- ❖ The application is Flexible, reliable and Customizable as per your requirements.
- ❖ Data Structure which is added to the file in order to provide faster access of the data.
- ❖ It reduces the number of blocks that the DBMS has to check.

IV. PURPOSE OF DOCUMENT:

The purpose of this documentation is to define the materials for creating an Android app for the college management system. The purpose of this documentation is to describe the functionality, modules and general interface of the student academic information system.

V. SCOPE OF THIS PROJECT:

Login into system through first page of the application and verify the username,password in background as PHP server.

Parents also view the student marks and also can give the feedback about our student or staff.

The admin will upload the candidate's certificates and also the students view the certificates.

D. Parent Portal:

Parent module shows the candidate marks and also parent can give the feedback about the performance of student.

E. Resources:

Resource module shows details about the subject like syllabus, code, author name, Reference book details.

F. Certificates:

The module shows the particular student mark sheet, ration card, pan card and so on these are all updated by the admin.

VI. ARCHITECTURAL DIAGRAM

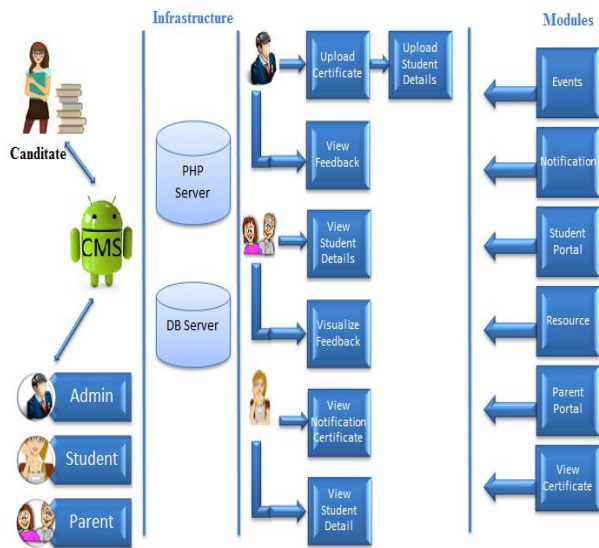


Fig. 1 Architecture Diagram



Main Module

VII. MODULE DESCRIPTION:

A. Events:

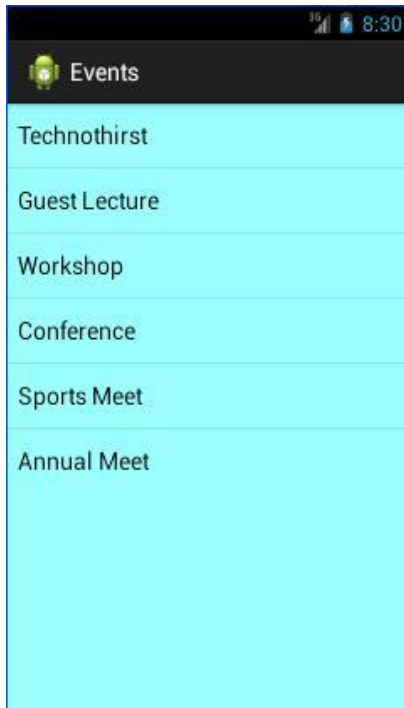
Event portal shows what are the events will be conducted in our institution or respective department and it can viewed by the student as well as parents.

B. Notification:

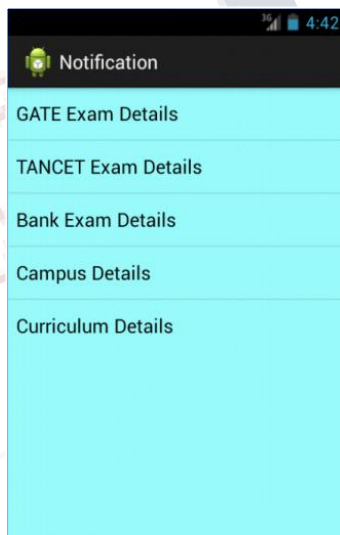
Notification can display the information about exams details such as GATE exam, TANCET and other exam details.

C. Student Portal:

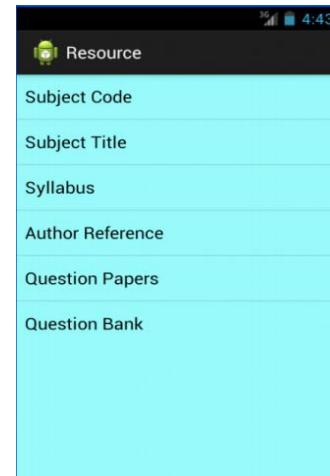
Student module shows that particular student marks such as CIA marks, semester marks. The student can login through their corresponding username and password.



a. Event Module



b. Notification Module



c. Resource Module



d. Parent Module

VIII. ALGORITHM AND SOFTWARE TO BE USED

A. Lucene

Widely used non-academic open source systems. Open source Java library for indexing and searching. Using Buffered Writer to write the data and it took around 40 secs to write 175 mb of data. And using the File Writer directly. On a modern system there is a good chance for you to just writing to the drive's cache memory anyway. It takes me in the range of 4-5 seconds to write 175MB .

Lucene is java based library and it is widely used non-academic systems. It is scalable and high-performance library used to index.

Lucene library provides the operations which are required by any search application.

- ❖ Indexing
- ❖ Searching.

B. Lucene in a search system

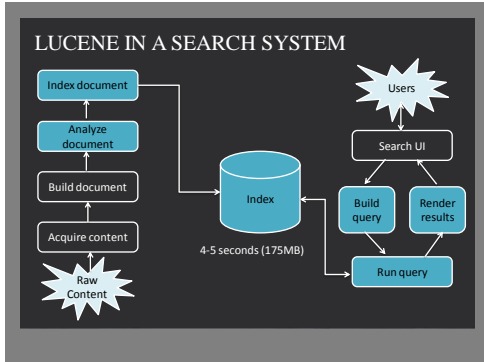


Fig. 2 Lucene Architecture Diagram

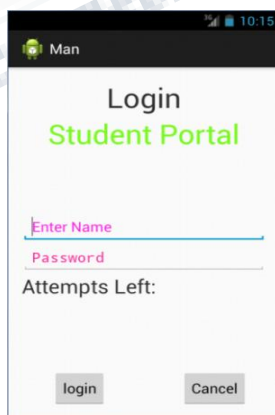
C. Indexing

It is a unique approach to speed up file access and to store information in organized manner but it also use a file indexing along with the information itself. A file indexing is a list of key pairs, arranged in order. Review that in our original phone book example we had 400,000 records of 512 bytes each, stored 16 records to a block, in 30,250 blocks.

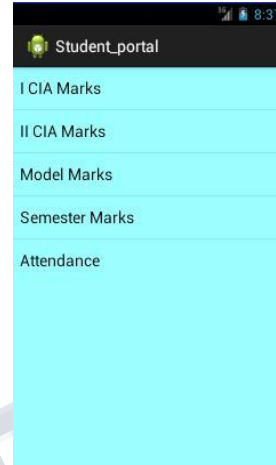
In our example there are 400,000 records. Each one has a 32-byte entry in the index, so the index will be $32 \times 400,000$ or 1,500,000 bytes long (1.6 megabytes). In modern computers there is no problem fitting this in process.

IX. RESULTS

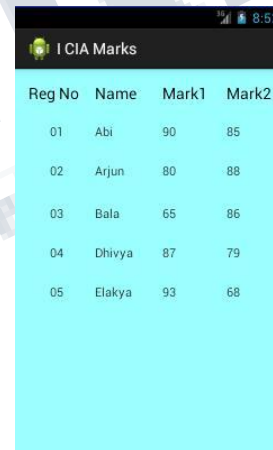
This Android Application will be first login with username, password and then student as well as parents can view the events, certificate and marks.



e. Student Module



e.1. Student Module



Reg No	Name	Mark1	Mark2
01	Abi	90	85
02	Arjun	80	88
03	Bala	65	86
04	Dhivya	87	79
05	Elakya	93	68

e.2. Output

X. CONCLUSION

It is a powerful method to store the candidate's marks in the smart phone rather than wasting the paper. It also updates the candidates marks directly on the server reducing the faculty's time. In future we implement this same framework to various online mark analyses for online test conducted by many fields.

XI. FUTURE SCOPE

The application can be extended with various contents such as certificates, notification, events, and parent feedback.

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