Online Examination System Based on Android Mobile

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Abstract :- — This Android application (stand alone too), where one can set the question for different technology i.e. Android, Java etc and one can register them self for test as a student, he can choose the choice of technology (Android, Java), and simultaneously he can get the exam result. After submit or End of the Test the form will be submitted and evaluated. Scores will be given to the user on his request. The question and answers can be text or pictures or audios or even videos. Initial plan is to develop a objective type text based question and answer. The main programming language is android/Java database as a sqlite3. Online Examination System is used for conducting online objective test, the test will be customized such that system will have automated checking of answers based on the user interaction. This project helps the faculties to create their own test based on the subject. This also helps the instruction to perform online quiz, test paper such that the academic performance of the students can be increased and can take the feedback from both students and parents. Exam System is very useful for Educational Institute to prepare an exam, safe the time that will take to check the paper and prepare mark sheets. It will help the Institute to testing of students and develop their skills. But the disadvantages for this system, it takes a lot of times when you prepare the exam at the first time for usage. And we are needs number of computers with the same number of students.

Keywords: - JSP Servlet Java 1.7, MYSQL 5.5, Microsoft Windows XP / Win7/win 8

I. INTRODUCTION

psychological pressure, improve

Online Exams System fulfills the requirements of the institutes to conduct the exams online. They do not have to go to any software developer to make a separate site for being able to conduct exams online. They just have to register on the site and enter the exam details and the lists of the students which can appear in the exam. Students can give exam without the need of going to any physical destination. They can view the result at the same time. Thus the purpose of the site is to provide a system that saves the efforts and time of both the institutes and the students.

With the passes of time, lots of changes have come in the universities examination systems. The manual examination system was meant for times when there were fewer students and courses. However, at present, with the gross enrolment ratio in higher education is going up, the examination system has to bear an increased load and leading towards inefficiencies. Except a few institutions, most affiliated institutions depend heavily upon university for administrative, examination- related and curricular matters. This amounts to an unnecessary burden on the university as it is reduced to an administrative and exam conducting body. The manual compilation of results takes very long time to declare results. This in turn affects students because some of them lose chances to get admissions in next higher classes. The students have to correspond by post or visit the university in person for examination-related queries. Sometimes, it becomes difficult to retrieve information manually for a specific candidate among huge volume of papers based databases. The conventional paper- pen examination system is prone to errors, greater time consuming, inefficient and waste of valuable resources. The students spent their valuable time and money for getting accurate information, but students are not getting this. They have to waste time and money for getting exam/result related information and sometimes to give bribes for the same due to several reasons. One of the main reasons is that in most of the Indian Universities, examination system is managed manually .For universities, the ever-increasing paper-based record registers have made it difficult to store and manage information. There is repetition of work because the same data is represented in different forms by different branches. This leads to data duplication and huge money is being spent by the universities to buy paper and hire additional manpower. In addition to above, there are also chances of tampering with students" records, circulation of fake degrees, unfair practices, etc. The main objectives of automation of examination systems are to minimize

human intervention, curtail expenditures, bring efficiency, enhance productivity, optimal utilization of resources, better monitoring of examination activities to take quick decisions, timely availability of information/services for stakeholders, bring transparency, integration of isolated but related databases, minimize data redundancy, role-based access to users, reducpublic image, etc.
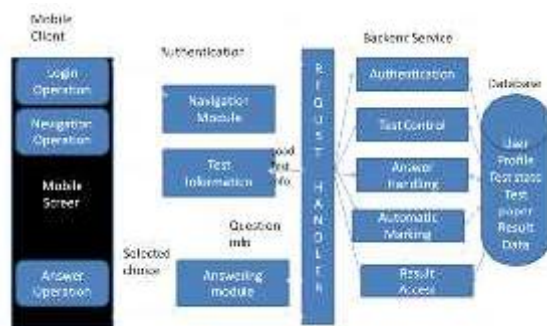
II. PROPOSED SYSTEM

Fig. 3.1 BLOCK DIAGRAM

The teacher uses PC to control the exam, and the students use mobile device to access and answer the questions. The server calculates the results and manages the results in backend database. The backend server is divided into six main functional modules, and the data is categorized into user profile, test state, test paper, and results data. The mobile client side contains the modules of question navigation and question answering. The test paper is loaded on the device when the user login with valid Test ID and user ID. The information of the exam paper is stored locally on the devices and most operations are finished on the mobile device. Thus, it reduces the information exchange with the 3 backend server. When the students answer a question, the server handles the requests and gives a feedback to notify the students the state of the answering operation.

The MES system is implemented with the above presented system architecture. The equipments, tools, communication medium, and technologies employed are:
➢ Mobile Devices: Apple iOS and Google Android
➢ Wireless Infrastructure: Wi-Fi/3G
➢ Test Setting and Management: Flex Builder Application on PCs and Mac Machines
➢ Service Architecture: Apache/PHP/MySQL
➢ Mobile Development Tool: Rhomobile
➢ Information Exchange Format: XML, JSON (JavaScript Objective Notation)

1) HCI Capability of the Mobile Devices

a) Mobile Native Application Interface

The design of the interface follows two principles: simple, and easy to use. In the first place, the information is simple and clearly presented. Then, the system is easy to learn and use so that the beginner can use it as the experienced. Compared with mobile web application, the mobile native application does not need the user to scroll up and down.

b) Two-Tier Navigation Model

To improve the efficiency of the navigation between questions, a two-tier navigation model is designed. The first tier of navigation buttons is on the top, and the second is on the bottom. For instance, button
1-5 in the first tier contains buttons 1 to 5 in the second tier which navigate to questions
1, 2, 3, 4, and 5. There is only one question displayed on the screen, so that the information can be clearly presented.

c) State Feedback of Answering Operation

When a student presses a button to answer a question, the state information will be returned to let the user know whether this operation is successful or not. Meanwhile, the pressed button is highlighted in a different colour. When the user navigates back to answered questions, the pressed button keeps the state as highlighted to notify which answer is selected in the previous operation.

2) Security

As the system is closed mobile application, it is strong in security compared with the web based applications. The main security concerns of the system are the authentication, privacy, and information encryption.
➢ Authentication. Only registered teacher and student users can login and use the system. The user may register with E-mail and device ID for user identification.
➢ Privacy. The information of each user is only available to the authorized users and managers.
➢ Information Encryption. Information exchange between server and the mobile clients via HTTP should be encrypted to avoid unauthorized tapping.

3) Efficiency and Speed

For the resource constrained mobile devices, it is of great importance to effectively utilize the limited resource to enhance the efficiency. For MES, the following approaches are employed to reduce the

burden of both the server and mobile devices, and promote the speed and efficiency:

a) Reducing Data Interaction

As the communication load is heavy for the server when there are a large number of students in the exam, it is a challenge for mobile device to frequently communicate with the server. Thus, reducing data interaction during the exam is an effective solution. In this system, from the system design, to the communication technology, all steps of design keep in mind the principle of reducing the data interaction.

III. CONCLUSION
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In this seminar a brief idea of an android based online examination system is elaborated. A literature review of on same can also be done & conclude that, an efficient android based online examination system can be implemented by using MY SQL, Java & ecllipse software.

We design a login page, exam mode page, selection of subject page & confirmation of exit page. These pages are developed by using different android development tools. We also create a logo for online examination app using ecllips software.

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