Web Application for Online MCQ Test

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ABSTRACT

On-line examinations contents providers to focus on creating effective assessment questions and focusing on exam's feedback delivery to students. In the paper we present techniques that are pertinent to the elements of assessment process: answers submission, computerized grading, and feedback after submission. As the modern organizations are automated and computers are working as per the instructions, it becomes essential for the coordination of human beings, commodity and computers in a modern organization. The administrators, instructor, Students who are attending for online examination can communicate with the system through this project, thus facilitating effective implementation and monitoring of various activities of Online Examinations like conducting Exams as per scheduled basis and delivering result to that particular use or student. And the details of students who attempted Online Examination are maintained at administrator.

Keywords: *Mcq test for Programming language, Server-client application, multiuser.*

1. INTRODUCTION

Online examination system is the one which allow students or trainees to do exercise or tests through computer. It is overcome the examiner workload of manual system problem. Apart from the current system, checking the answer sheets after taking test, waste the examiners time, so this check the correct answer and save the examiners time and carry the exam in an effective manner. The main aim of Web based online examination system is to effectively evaluate the student exhaustively through a totally automated system that not only saves lots of time but also gives fast and exact results. For Students they give exam according to their convenience time from any location by using Internet and there is no need of using additional thing like pen, papers, etc.

Online examination system helps students to offer a quick as well as easy way to available for the exam. It gives the results quickly after the examination with 100% accuracy. Student can enter to give exam only with their valid username and password. The online Examination contains multiple choice questions and appropriate number of options. There are no limitations on number of options and it can be randomized question, so same set of question will not come to all student. More than one option can be right but the user can select only one option and this provides the time limit. The user can see their results after completing the exam. This application helps the students to give the exam from far distance and which can provide surety of protection and easiness and other beneficial features to the student.

2. LITERATURE SURVEY

SIETTE: Guzman and Cornejo (2005) proposed an online examination system called System of Intelligent Evaluation using Tests for Tele-education (SIETTE). SIETTE is a web-based environment to generate and construct adaptive tests. It can be used for instructional objectives, via combining adaptive student self-assessment test questions with hints and feedback. SIETTE supports secure login and portability features. On the other hand, the other features: resumption capability, multi-instructor, random question selection, random questions distribution and random choices distribution are missing.

CBTS:(2013) developed a Computer Based Test System (CBTS). CBTS is a web-based online examination system developed to address issues such as lack of timing flexibility for automation candidates log-off upon expiration of allowed time, result integrity, guaranty, stand-alone deployment, need for flexibility, robustness, designed to support the examination processes and overcome challenges framing the conduct of examination, auto- marking,

auto- submission, and generation report of examination result [3].

EMS: Rashad Et. Al. (2010) proposed a web-based online examination system called Exam Management System (EMS). EMS manages the examination and auto-grading for students' exams and supports conducting exams, collects the answers, auto mark the submissions, and produce the reports for the test. EMS supports secure login, multi-instructor, and portability features. However, the other features: resumption capability, random question selection, random questions distribution, and random choices distribution are missing.

OEES (the online examination and evaluation system) is based on B/S structure, in which the process of examination and evaluation has been logically classified into four irrelevant sections by functions: content-displaying layer, application-running layer, data-operating layer and database (Ling 2002). The two abutting sections communicate through a standard interface. The content-displaying layer is a user interface system, which contacts with users directly. The application running layer, the core of OEES, realizes communication between users and database by program, such as the program of making up paper, testing, keeping time, and analysing results. The data-operating layer visits the database. It receives data requests from up-layer, sends SQL order to database, and then returns the results to the application layer.

Hangmen Nei Math, Physics and Information Engineering College Online Examination is the essential parts among online education. It is effective as well as fast plenty and decreases the large number of material resources. Online examination system is develop based on web. This paper discover the principle of the design system, that represents the main function of the system analyses the algorithm of generating question paper, and talk about the security of the system.

Nor Shahida btMohd Jamail Abu Bakar Md Sultan Faculty Computer Science and Technology, Selangor, Malaysia Examination procedure is significant activities for institution to evaluate performs of student. Hence the quality of exam question will determine the quality of student develop by the institutions, also preparing exam question is challenges, long winded and take more time for instructor. Current technologies will help instructor to add the question banks in database. The issues raised was how the current technology would also help the instructor to auto produce the varies sets of questions from time to time without pertain about repeating and matching from the pass exam while exam bank thriving.

The Schramm looked at a e-learning web-based system that could simply offer and grade mathematical question with infinity patience. Therefore, it needs the capability for input and output of mathematical formula, the dynamic generation of plots of the generation of random expression and numbers. AI-Bayati and Hussein present and applied generic software of multiple kinds of e-exam package; this package of e-exam is oriented to hearing impaired (HI) person. Therefore, the exam material of this package is translated into language of HI person like sign language and figures spelling. The idea of generic software is to present an empty template to the teacher who would like to develop his required e-exam for the needful topic such as mathematics, language, science, etc. and desired set of exam kind such as multiple choices, matching between words, fill in the blanks, etc… The web-based examination system is an effective solution for mass education evaluation. Zhenjiang develop a novel online examination system based on a browser/server framework DCOM technology which carries out the examination and auto grading for objective question and operating question, such as programming, operating Microsoft windows, editing Microsoft word, excel and PowerPoint, etc. It has been successfully applied to the distance evaluation of basic operating skill of computer science such as the course of computer skill in universities and nation world examination for the high school graduate Zhejiang Province, China. The system is not reliable enough. Also, it uses a specific technology not open source technology. The system is designed specifically for computer science students. It is not designed for general purpose students. Also, it does not support other languages. Lie He presented a web based educational assessment system by the applying Bloom's taxonomy to evaluate student learning outcomes and teachers' instructional practices in real time. The system performance is rather encouraging with experimental in science and mathematics courses of to local high school.

we have thus implemented HTML for server client interaction.[4]

3. MOTIVATION

This system will be able to handle many services to take care of all student's records in a quick manner. This system will save time and paper work and make examination more systematic and disciplined. In this system students get the result just after completion of examination in objective test.

4. PROPOSED SYSTEM

In these application students details are maintained efficiently admin has a facility to view the student details, edit the details, subject details and marks details are also maintained in this system. This has an enhanced facility.

a layered architectural pattern that has four layers - presentation, core modules (comprising of three modules), server, and storage service as depicted in Fig.1. Each layer is discussed in this section as follows.

A. Presentation Layer

This layer represents the various ranges of devices that can be used to access the online examination system via the Internet. This can include desktop machines, laptops, and mobile devices such as smart phones and tablets.

B. Core module

This layer refers to the key feature of the online examination system that is split into three modules. The Administrator module allows an authorized admin to add departments to the systems database. The Department module allows a given department to add examinations for the students to take. The Student module simply provides the interface for the students to take exams.

C. Server

This refers to the layer from which the online examination system can be deployed as a web application. Apache Webserver was the server used in this implementation and is reputed to be the most popular server.

D. Storage Service

This layer covers the rapid retrieval and storage of data and information using a Relational Database Management System. MySQL was the database adopted in this study and it works seamlessly with the Apache Web server.
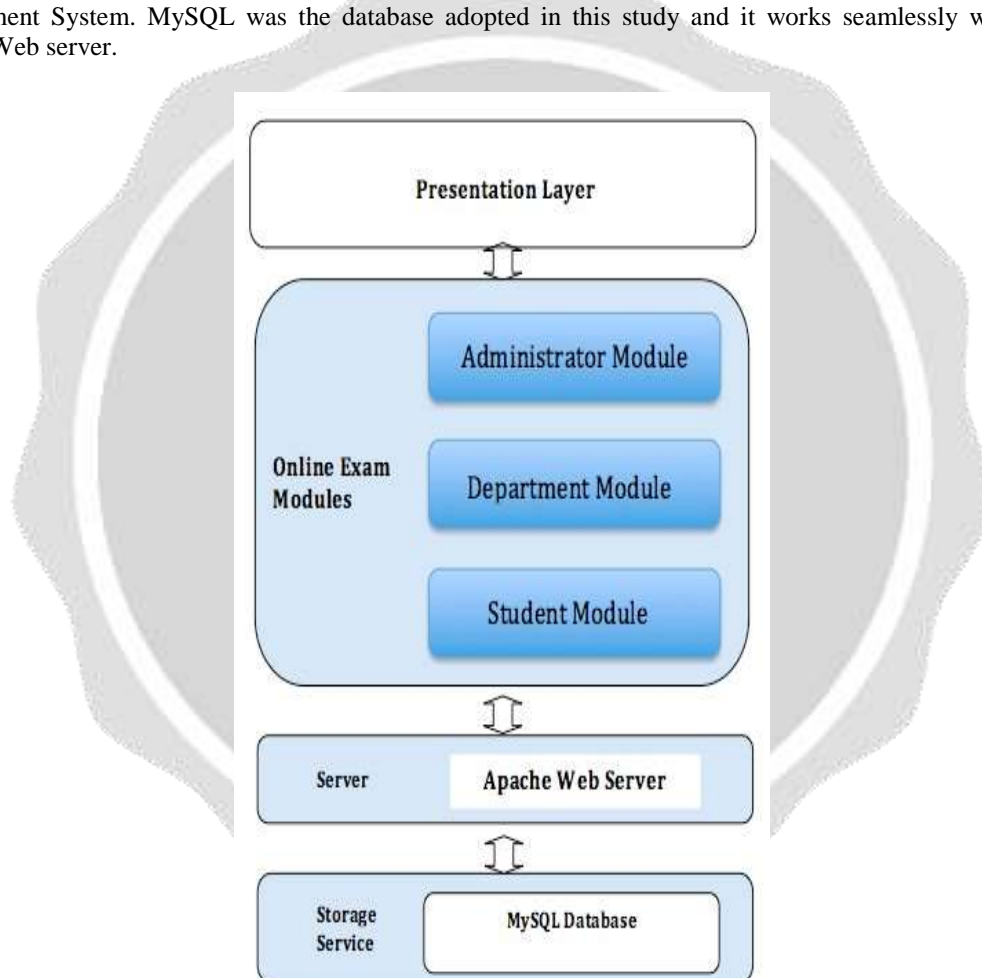

Fig. 1. Architecture of the Online Examination System.

V. IMPLIMENTATION

The online examination system uses server architecture. At the client by using a web server where PHP and MySql in the sever side are responsible for the preparing exams processes and save and return data from database.

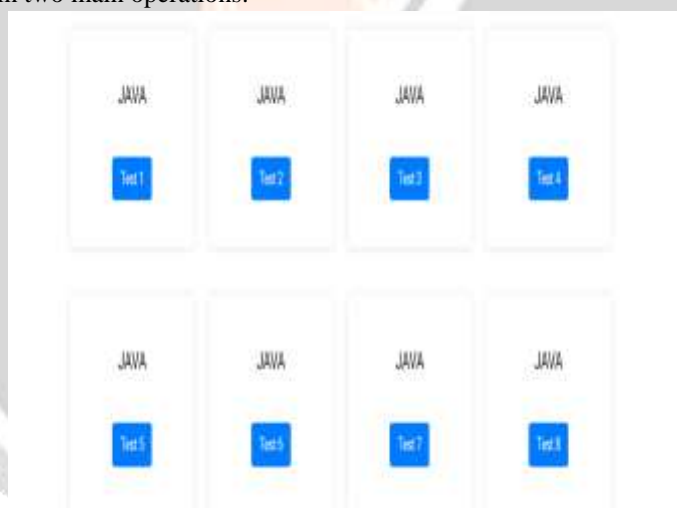### 1. Login system

Login system contains the following programs.

The information of each student will be sorted by the admin upon the registration process, enabling this way the particular student to log on the system without having to undergo the process of registration again. Logging is successful only if the input detail is matched with the database, else an error message is displayed.

Admin activities :

Admin activities contain the following programs:

➢ Questions management:

Managing questions contain two main operations:

i. Adding Questions: Include adding two type of questions according to the admin desires either (multiple choices, true/false).
ii. Deleting Questions: Include deleting questions of the two types of question (multiple choices, true/false)

  ➢ Students management:
    Managing students contain two main operations:
i. Registering students: Include inserting the information of each student (student name, email id, password) to complete the registration process.
ii. Deleting student: By inserting the (name and email) of the student to be deleted the admin can delete any student.
  ➢ Result management to show all student result
  1. Student activities
    Student activities contain the following operations:
  ➢ Give the exam
    After the student logging in a group of questions will be displayed to student to start and give the exam.
  ➢ Give the result

After answering all the questions in a specified period of student will finish the exam and student degree will be displayed on the screen.

VI. CONCLUSION

Online Examination System is a Web Application the key concept is to minimize the amount of paper and convert all forms of documentation to digital forms. It can observe that the information required can be obtained with ease and accuracy in the computerized system. The user with minimum knowledge about computer can be able operate the system

easily. The system also produced brief result required by the management.

The Online test System is developed PHP and Sql fully meets the objectives of the system for which it has been developed. The system operated at a high level of efficiency and all teacher and user associated with the system understand its advantage. The System solves the problem.

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