

# Web Based Online Examination System

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## Abstract

An Online Examination System is a web software solution, which allows any institute or industry to set up, direct and manage examinations via an online environs. Some of the problems faced during manual examination systems are the retard take place in result processing, filing poses a problem, chance of loss of records is more as well as searching records is hard. System Maintenance is also very difficult and time consuming and endeavor. Online examination is one of the essential parts for online educational system. It is effective, fast and reduces the large amount of resource material. An examination system is develop base on the internet. This paper delineate the system principle, presents the main intention of the system, analyzes the auto-create test paper algorithm, and discourse the system security.

**Keywords-** Online Examination, Result Processing, Auto-Create, System Security, Web Software Solution

## I. INTRODUCTION

With the computer and network technologies widely used, many computer applications based on Internet have been developed. Online examination system is the one which allow students or trainees to do exercise or tests through computer. It not only reduces the workload of teachers, but also achieves the objectivity and impartiality of examination. In the past several years, many examination systems have emerged, such as [5], [6], [7] and [8]. An Online Examination System is an Online test simulator is to take Online Examination, test in an effective way and no time wasting for manually checking of the test paper[3] [4]. 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 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 paper. 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 so same set of question will not come to all student so it forbid manipulation. More than one option can be right but the user can select only one option. This provides time limit. The user can see their results after completing the paper. This 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 [1].

## II. LITERATURE REVIEW

Hongmei Nie 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 base on web. This paper discovers the principle of the design system, that represents the main functions of the system, analyses the algorithm of generating question paper, and talk about the security of the system [9].

Nor Shahida bt Mohd Jamail Abu Bakar Md Sultan Faculty of Computer Science and Technology, Selangor, Malaysia Examination procedure is significant activities for institutions to evaluate performance of students. hence the quality of the Exam questions will determine the quality of the students develop by the institutions, also preparing exam questions is challenges, long winded and take more time for the instructors. Current technologies will help instructors to add the questions banks in databases. The issue raised was how the current technologies would also help the instructors to auto produced the various sets of questions from time to time without pertain about repeating and matching from the pass exam while the exam bank thriving.

### III. LIMITATIONS OF EXISTING SYSTEM

We had studied XYZ College and found existing system was manual entry of up keeping of the details of the student who are registered already. And it is very difficult for every student to come to the examination center. Online examination system is needed to prepare Registration/application form, question paper for the Students and need to print a lots of number manually. For calculating how much students registered, and verifying details of every students in a month by hand is very difficult and time consuming. It's not only requires lots of time but also wastage of money as it requires quite lot of Manpower to do that. Another component that takes into account that is the possibility of mistakes. The limitation of existent system is that it is not all personalized. It can't be used for personal and immediate reference. Even the staff members can make quick entries if the responsible person is absent.

More time require for creating question paper. Time to check right and wrong answers, Manually Calculating Marks. Human erroneousess. Limitation of Number of student can give papers at a Time. Require Teacher to monitor examination center.

### IV. PROPOSED SYSTEM

This web based application is used to conduct online examination. The students can sit at individual terminals and login to write the exam in the provided duration. The questions have to be given to the students. This web application will perform correction, display the result instantly as well as store it in database. This web application gives the administrator with a facility to add new exams. This application provides the Instructor to add questions to the exam test paper, modify questions in the exam in a particular exam test paper. This web application takes care of authentication of the administrator, Instructor and the student. The advanced computerized system is developed with the aim to get over the drawbacks of existent manual system. We had studied manual Examination system of XYZ College and identified possible mechanization. The proposed system has got many vantages. People from various area of the world can register very easily. The new system is more personalized. It is tangle in such a way that all the new users can understand all the options in it very easily. It is made in a quick and easy referential style. The vantages of proposed system are that safety is carry in the new system. As it is easily intelligible and user friendly, fast entries can be made in this system. Complete mechanization, no manual intercession in whole process of examination. No geographical limit, Student can give exam from any place of the world 24x7. 100% correctness in marks calculation. Randomization of Questions.

### V. SYSTEM DESIGN

#### A. System Architecture

The administrator module, coordinator and student modules include their part of functions to the Online Examination. The initialization of the Online Examination is done by the ADMIN. The administrator adds registered information of the users to the Online Examination system database and edited or deletes it as needed. The Coordinator inserts the questions to the question paper of the Online Examination in subject wise manner. The question numbers are automatically generate. The complete subject wise results of students can be viewed by the exam coordinator and administrator at any time after the completing the exam. The student only have to login to attend the exam and after completing and submitting the exam the result is immediately generate.

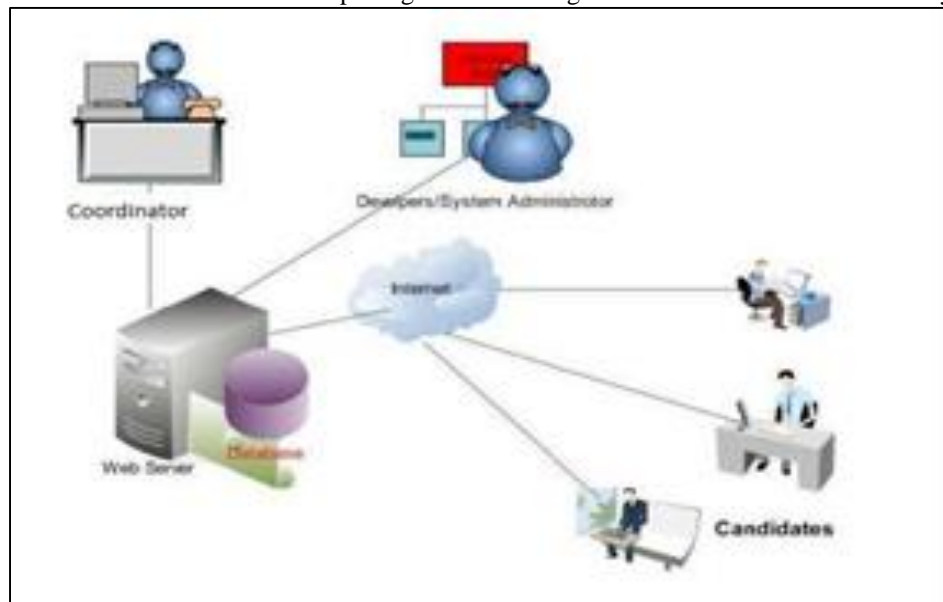


Fig. 1: System Architecture

### B. Database DFD dig

A data flow diagram (DFD) is use a very small number of primitive symbols to represent the functionality performed by the project and the flow data among the different functions of the project. The data flow diagram depicted in figure B below shows the relationship among the entities in the Online Examination system. The entity "USER" can give exam after he or she registered to the online examination system.

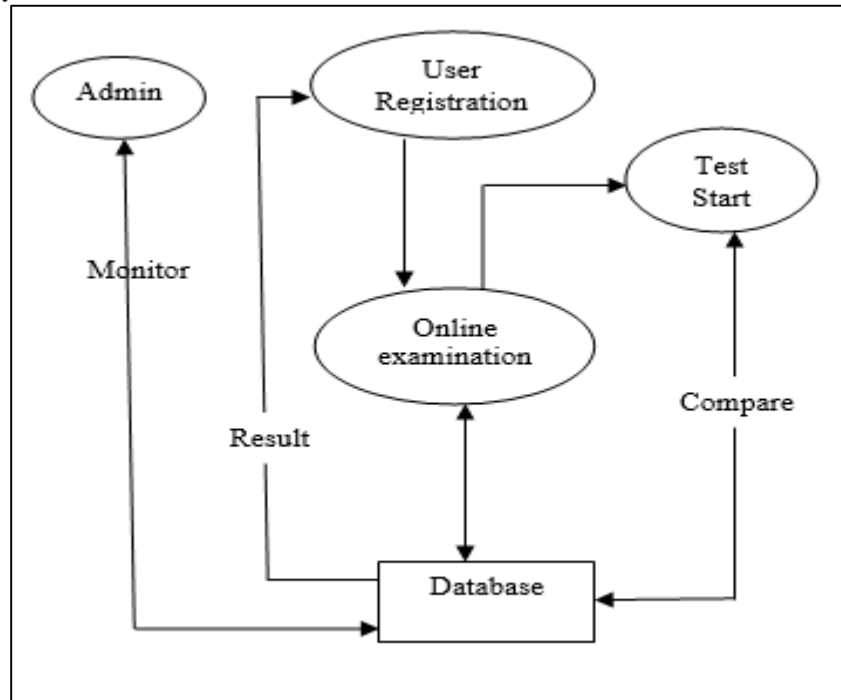


Fig. 2: Database DFD

### C. Context Diagram

This diagram represents what are the bounders and scope of Online Examination System. It describes the main objective of the system and its entities involved.

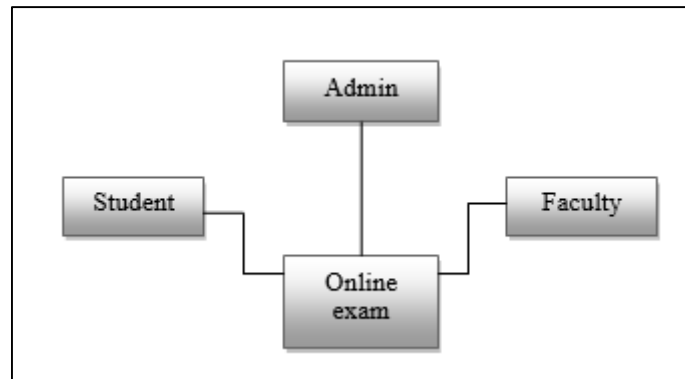


Fig. 3: Context Diagram

## VI. APPLICATIONS

This Online Examination System can be applied in Universities and Colleges, Schools, Training institutions etc.  
Functions of Online Examination System

### A. Question and Answer Management

The Role of this module were question, adding, removing and modifying.

### B. Paper Genesis

The Role of this module is arbitrarily generating question paper according to specified requisite. It is the main function of online examination system.

### C. Online Test

Student user can use the function of online test to arbitrarily select a paper or use a paper assigned by teacher.

## VII. ADVANTAGES

Online examination systems attempt to expeditiously evaluate the paper partakers thoroughly through a totally automated system that saves time as well as give quick results. The Online examination system helps to completely automatize the old manual process of taking exams. Normally it is execute by a Web Based Online Examination Software or and Intranet variance. It also importantly decline the need for supervise while the exam is being taken.

An important high point of using a web based online examination system is that it gives a high level of transparency as opposing the traditional method. It is virtually impossible to compromise exam questions and valuations because they cannot also be determined. Most online exams generate their results immediately and it is always possible for the examiner to get information on his results instantly.

It becomes more and more popular in many colleges and training organizations that students have an exam via the internet. It has many advantages, which has not geographical restrictions and is fair and reasonable. In high schools, Online test can realize the "separation of teaching and evaluating" and automation management, and can use effectively campus network software and hardware resources to achieve maximum effectiveness, and better for the school's teaching, research and management services. In schools, to promote large-scale online test not only enables the examination of objectivity, fairness, but also can reduce the workload of teachers through the automation of test paper, marking [10].

## VIII. CONCLUSION

With the use of this system, we can moderately conclude that: It can help the authorization of the educational institution to maintain the safety and integrity of its important data like record of attendance, exam results, etc. as the data shall instantly be transmitted on the cloud wireless. The authorities not need to worry about misplacement pervert of attendance registers or exam registers, etc.

## IX. FUTURE SCOPE

Scope of this project is very wide in terms of other manually exam paper. This can be used not only in educational institution but also private institute .It can be used anyplace any time as it web base application .No limitation that examiner has to be available when the student takes the test. Online examination is need to designing for educational institutes like and private institutes to direct test of their students.

There have been number of cases of computer glitches, bugs in content. And security threats reported in web based online examination system. So in the near future the so called software can be make more secure and trustworthy. While electronic glitches are uncommon. They have been known to occur. For instance when computer crashes voided the efforts of so many students. There are also cases in which correction software has corrupted score.

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