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# Online MCQs Examination System

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**Abstract:** *An Online Examination System designed with the specific goal of reducing the hectic job of assessing the answers given by the candidates manually. Responses by the candidates will be checked automatically and instantly. Being an integrated Online Examination System it will reduce paper work. The result will be shown immediately to the participating students reducing the anxiety. It can generate various reports and graphs for evaluation purpose almost instantly when and where required. It will also send mail notifications to the students about the detailed description of tests, their results and other information through Small Message Transfer protocol (SMTP).*

*The system is designed for Educational Institutes like Schools, Colleges, and Private Institutes to conduct logic tests of their students on a regular basis. Design to facilitate administrator and user friendly interface complete and secure information is provided to user scope.*

**Index Term** – Online examination, SMTP, Notification.

## I. INTRODUCTION

The project described within this document is an Online Examination System designed with the specific goal of reducing the hectic job of assessing the answers given by the candidates manually. Responses by the candidates will be checked automatically and instantly. Being an integrated Online Examination System it will reduce paper work. The result will be shown immediately to the participating students reducing the anxiety. It can generate various reports and graphs for evaluation purpose almost instantly when and where required. It will also send mail notifications to the students about the detailed description of tests, their results and other information through Small Message Transfer protocol (SMTP). The system is designed for Educational Institutes like Schools, Colleges, and Private Institutes to conduct logic tests of their students on a regular basis. Design to facilitate administrator and user friendly interface complete and secure information is provided to user scope.

## II. OBJECTIVE

Corporative between the data stored in the server of the Institute and online exam system. To deal with online system in an easy way and efficient mannered. A privilege for each person to allow each persona use this system to create his own exam. And have control on his exam. Allow each person to create more than one exam with different way to create variant question.

### A. Scope

Online Exam system is designed for Educational Institute (like school, university and training center etc.).The system handles all the operation and generates reports as soon as the test is finish. The type of question is only multiple choice.

## III. JUSTIFICATION AND NEED FOR THE SYSTEM

The traditional approach to measuring a person's level of knowledge in topic has been examination. These days there is often more emphasis on internal assessment, which may consist of assignment and project given out by the teacher and marked or assessed by the same teacher. It is a modern method of conducting examination widely accepted and hastily increasing environment of conducting examination through online in all the sectors of education and job. It will considerably replace the traditional paper and pen based exam in future. In present days the availability of the computers and the wide spread nature of the internet has laid a strong foundation paths for conducting most of the prestigious exams on-line.

### A. Overview

The online test created for taking online test has following stages

- 1) Login
- 2) Test
- 3) Result

a) *Login:* There is a quality login window because this is more secure than other login forms as in a normal login window there are multiple logins available so that more than one person can access to test with there individual login. But in this project there is only one login id i.e. administrator id and password by which a person enter the site. Hence it is more secure and reliable than previously used on-line test simulators.

- b) *Test*: Test page is the most creative and important page in this project. It consists of 2 modules namely
  - i) *Subject Selection*: From the given choices the candidate can select his field (like C, C++ and JAVA etc.) for taking on with the test.
  - ii) *Utilities*: It includes
    - 1. Skip and come back to the question afterwards if needed.
    - 2. Gives the list of attempted and unattempted questions and can go to any question directly and can either attempt or change the answer of the already attempted question

#### B. System Requirement Specification

1) *Functional System Requirement*: This section gives a functional requirement that applicable to the On-Line Exam system. There are three sub modules in this phase.

- a) Candidate module.
  - b) Examiner module.
  - c) Administrator module.
- 2) *The functionality of each module is as follows*
- a) *Candidate Module*: The candidate will logon to the software and take his examination. He can also check his previous examinations marks and his details. The candidate will get result immediately after the completion of the examination.
  - b) *Examiner Module*: The database is prepared & loaded into the software. Selection for examination can be done language wise by the examiner. The results will be displayed immediately after completion of the examination.
  - c) *Administrator Module*: The administrator collects all the results after successful completion of the examination and sends to the head quarters as and when required.
- 3) *The Features That Are Available To The Administrator Are*
- a) The administrator has the full fledged rights over the OES.
  - b) Can create/delete an account.
  - c) Can view the accounts.
  - d) Can change the password.
  - e) Can hide any kind of features from the both of users.
  - f) Insert/delete/edit the information of available on OES.
  - g) Can access all the accounts of the faculty members/students
- 4) *The Features Available To The Students Are*
- a) Can view the different categories of Test available in their account.
  - b) Can change password.
  - c) Can view their marks.
  - d) Can view the various reading material.
  - e) Can view and modify its profile but can modify it to some limited range.
- 5) *The Features Available To The Examiner Are*
- a) Can view the different categories of Test conducted by users.
  - b) Can change password.
  - c) Can view their marks.
  - d) Can view and modify Results.

#### C. Non-Functional System Requirements

1) *Performance Requirement*: Some Performance requirements identified is listed below:

- a) The database shall be able to accommodate a minimum of 10,000 records of students.
- b) The software shall support use of multiple users at a time.
- 2) There are no other specific performance requirements that will affect development.

3) *Safety Requirements*: The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

4) *Security Requirements*: Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction, or disclosure are described below. Keep specific log or history data sets

- a) Assign certain functions to different modules
- b) Restrict communications between some areas of the program
- c) Check data integrity for critical variables
- d) Later version of the software will incorporate encryption techniques in the user/license authentication process.
- e) Communication needs to be restricted when the application is validating the user or license. (i.e., using https).
- 5) *Software Quality Attributes*: The Quality of the System is maintained in such a way so that it can be very user friendly to all the users.

The software quality attributes are assumed as under:

- a) Accurate and hence reliable.
- b) Secured.
- c) Fast speed.
- d) Compatibility.

#### IV. SYSTEM EVOLUTION

- 1) *Including Image Support*: Allow to adding students, faculty members and administrator image to the system. Which available for student to ensure that exam for his teacher. Also, the teacher can see his student's image.
- 2) *Flags*: Allow the student to put a symbol near the question that helps the student to return and review the questions and change them accordingly.
- 3) *Enable And Disable Exam*: Allow the faculty member to control for enable or disable the exam for his students.
- 4) *Allow To Transfer Exam From One Subject To Another*: So, that saves the time to rewrite the questions for future course.
- 5) *Allow To Upload The Exam From Word Or Excel File*: So, that saves the time to enter a question in the on-line system, if the teacher needs not the direct answers.
- 6) *Enhanced The Questions To Be Appear As Random For Each Student*: Make the order of questions as random, or select random questions from a set of questions.

#### V. CONCLUSION

This Online Examination System developed using Javascript, HTML, PHP and My-SQL fulfills the basic objectives of the system for which it has been developed. The system has reached a steady state as far as the basic framework is concerned. The system is operated at a high level of efficiency and its advantage is quite understood.

#### VI. FUTURE PROSPECTS

Also if time and resource constraints are eliminated, this system can be adapted to a full-fledged Knowledge Portal, wherein a personalized environment for each user who are a part of it can be created.

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