

“Implementation of Conducting Online Certification Examination in Cloud Environment”

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Abstract: The Purpose of Online Examination System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Online Examination System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically, the project describes how to manage for good performance and better service for clients.

Keywords: Cloud Computing Technology, Exam Form, Registration form, Photocopy, etc.

Introduction:

The “Online Examination System” has been developed to override the problems prevailing in the manual system. This cloud computing software is supported to eliminate and in some cases reduces the hardships faced by these existing system. This application is reduce as much as possible to avoid errors while entering the data. Moreover these system is designed for the particular need of the company/institute to carry out operations in a smooth and effective manner. Thus by this all it proves it is eco-friendly. It can assist the user to concentrate on their activities precisely. Thus it will help the organizations in better utilization of resources. This system emphasis on to overcome the drawbacks of traditional paper work for exam by implementing an automated examination system. The centralized automated system is efficient as it overcomes important manual system drawbacks namely speed, precision, and simplicity. This system is like a common bridge between admin and students, thus making the activities convenient for each regarding examination. It is a system that will make the exam process much organized. The system can be customized based on the requirement of the various sectors. This System allows students to access required information regarding various

exam forms, courses and internships and gain the vast knowledge about it. The main goal of the system is to make the system available for students anytime, anywhere and on any device and students will have remote access to the website where they can fill their exam should be conducted and the task of admin will be given to the exam admin where they can verify the students details by accessing their forms and check their details from database.

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Due to these reasons there is need to develop a better system, which will overcome all the problems more easily and efficiently. For overcome these problems we have a new technology which is named as Exam Cloud. In this, the student will register and select the interested courses or internship and after selecting they have to regular classes and after completing the syllabus of a various courses and internships they give exam and they get a certificate. For overcome these problems we have a new technology which is named as Exam Cloud. In this, the student will register and select the interested courses or internship and after selecting they have to regular classes and after completing the syllabus of a various courses and internships they give exam and they get a certification.

Also in exam, there is a criteria if they score in that criteria then they only get a certificate otherwise they will not get the certificate .Through practicals, students get to know the real world application of concepts which they have learnt in theory sessions. Each and every institute conducts practical exams for which they have to format PCs, install various softwares, prepare the problem system using their login credentials, the students will be able to view the problem statement which has been allotted to them. If a student is not able to implement the problem statement allotted to him, he can request for a change in the problem statement. The proctor will be able to view this request and decide whether to allow the student to change the problem statement or not. The proposed system will keep track of the students who have requested for a change. This will help in fair evaluation of the student's performance. The system will also help in monitoring students' activities such as opening of multiple tabs, number of lines actually typed, presence of I/O device that aids in performing the practicals etc. The system shall generate log file of all such activities and submit it to the server for further analysis. The proposed system also helps in analyzing the students' performance. The faculties and the practical in- charge of a administrator can view reports about how students graphs.

Literature Survey:

[1] "E-Exam cell", Udle Maqsood Ahmad, Kali Saqlain, Shaikh Mohammed Sohali. An automated system for exam cell department will benefit both the student as well as exam cell department staff to easily handle the entire task related to exam cell to contrast to the existing manual system.

[2] "Exam Cell Automation System", Priya Dharshini, Selva Sudha. Exam Cell Automation System is developed for the college to simplify examination hall allotment and seating arrangement. It facilitates to access the examination information of a particular student in a particular class.

[3] "Online Exam Cell and Result Analysis Automation "by Aditya Rao, Abhishek Ganesh, Stuti Ahuja. Current exam cell activities are mostly done on paper. Automated solutions using this system will make exam department activities are more efficient by covering for the most important drawbacks of manual system, namely speed, precision and simplicity. A centralized system will ensure that the activities in the context of an examination can be managed effectively, while also making it more accessible and convenient for both students and staff.

[4]"A Cloud Base Solution For Examination Management In Education-An Architecture", by Jewan Singh, Vibhakar Mansotra. In this paper we attempt to show the applicability and usage of cloud computing in examination in education a cloud based solution in proposed to address the various issues pointed out by the researchers in the literature for adoption of online examination system in educational institutions.

Problem Statement:

Since, the traditional have many drawbacks such as time consuming, difficulty of analysing the test manually, more observes are required to take exam of many student, result are not accurate since calculation is done manually, the chance of losing exam result is higher in current system, checking of result is time consuming since it done manually, limitation of number of student can give examination at a time. With the development of information technology and use it is an orderly and properly helps to overcome the existing error in the manual system. Online examination system saves the exams information in the database, an this make it an easier way to give exam admin can add theirs exam rules, and user can give exam in a totally automated system.

Proposed System:

Online Examination System save the exams information in a database, admin can add/delete questions , set the correct answer, specify the exam period, register students, delete students, show questions for student randomly, calculate and show the final result for students.

A. System design:

The Online test created for taking Online test has following features:

- In comparison to the present system the proposed system will be less time consuming and is more efficient.
- Result will be very precise and accurate will be declared in very short span of time because

calculation and evaluations are done by the simulator itself.

- The Proposed system is very secure as no chances of leakage of question paper as it is dependent on the administrator only.
- The logs of appeared candidates and their marks are stored and can be backup for future use.

B. System activities:

1. Login system:
Login system contain following programs:
 - Login as admin:
By using already stored admin name and password the individual can log on to the system anytime he/she desires as an admin to manage the admin activities. Logging is successful only if the input details is matched with the database, else an error message is displayed.
 - Login as student:
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.
2. Admin activities: Admin activities contain the following programs:
 - Questions management:

- a. Adding questions: Include adding two types of general specification of the online examination system questions according to the admin desires either (true/false, multiple choices).
- b. Deleting questions: Include deleting two types of general specification of the online examination system questions according to the admin desires either (true/false, multiple choices).

- Student management :
Managing students contain two main operations:
 - a. Registering students: Include inserting the information of each student (student **name**, E-mail and passwords) to complete the registration process.
 - b. Deleting student: By inserting the (name and E-mail) of the student to be deleted the admin can delete any student.
 - Result Management: Show all student results.
3. Students activities
Student activities contain the following operations:
 - Give the exam:
After the student logging in, a group of questions will be displayed to him to start and give an exam.
 - Get the results: After answering all the questions in a specified period the student will finished the exam.

C. Design of the System:

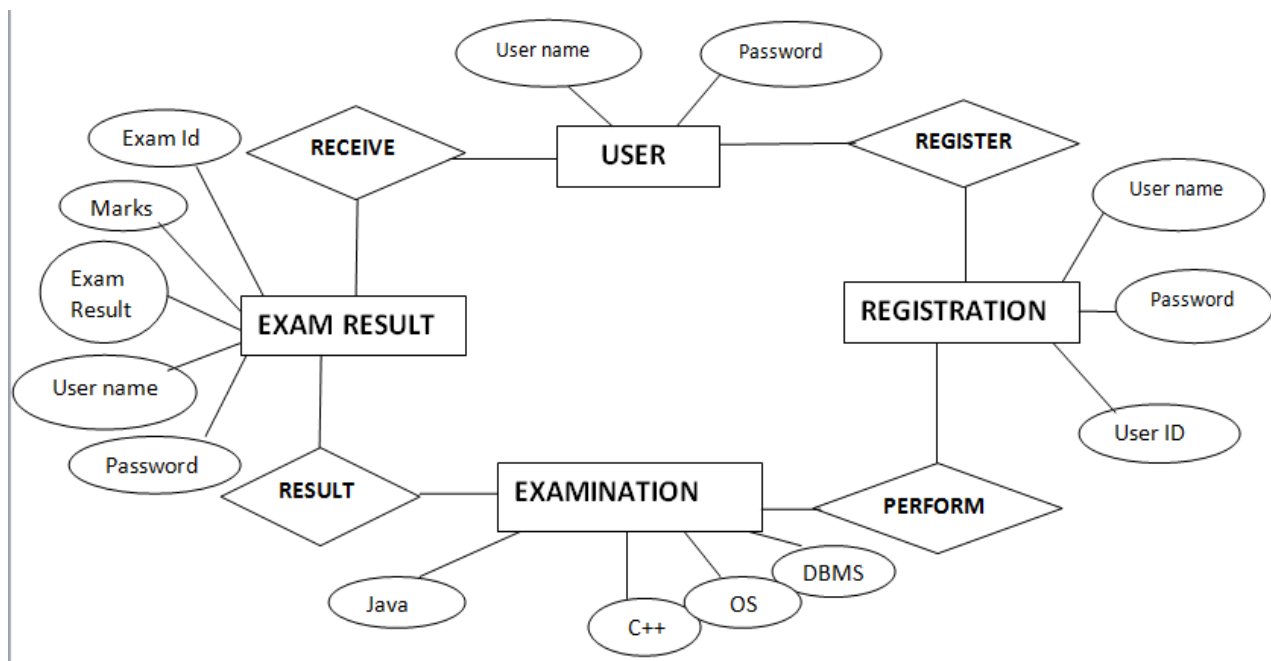


Fig: E-R diagram

Conclusion:

This is an automated approach toward examination department which will ease the work of the students by giving online/offline exam. This automated system is based on cloud computing as cloud computing becoming powerful network architecture to perform large scale and complex computing implementing an automated examination system will prove to be very beneficial. This is an automated approach towards Examination department which will ease the work of Students by filling the forms online instead of manual form submitting, This Automated Examination system is based on cloud computing. Students and admin will even have remote access to the system where the student can apply. In this survey paper, we provided an overview of existing works on the cloud computing issues, challenges, and cloud services.

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