

# Online Examination System –Architecture

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**Abstract** - This Online Examination System is a software solution, which allows any industry or institute to arrange, conduct and manage examinations via an online environment. It can be done through the Internet/Intranet and / Local Area Network environments. Some of the problems faced during paper based manual examination systems are the delays that occurred in evaluation and result processing, filtering of records is difficult. Online examination is one of the crucial parts for online education system. It is efficient, fast enough and reduces the large amount of material resource.

An examination system is implemented based on the web. This paper describes the principle of the system, presents the main functions of the system, analyzes the auto-generating test paper algorithm, and discusses the security of the system.

**Keywords:** *Online Examination System, Security, Client Server Architecture; Web Browser, WebServer, Architecture*

## 1. INTRODUCTION

The Online Examination System is an electronic application. This framework will help the college/Institution to assess the inquiry have different alternative with one right reply. The college/Institution can direct the online examination and report the outcome in a fixed time. The examination office is in charge of the creating the inquiry paper and it would be

totally secure. Online Examination framework give remotely access to understudies. It assists the incharge with reducing the work of leading exam, checking answer sheets and producing result. All these work is finished by the machine. All the information is put away on the server. What's more, candidates can get to these databases and give exam. Here we utilize a candidate server model. Executive offer access to instructor and understudies. Understudies who have account on the framework will have the capacity to give exam. There are two sorts of exam segment Practice and Real test. Understudies can give both tests. Right answer will be highlighted in diverse shading. Subsequent to submitting test the outcome will be created and examinations is done on the premise of result and send it to every single person.

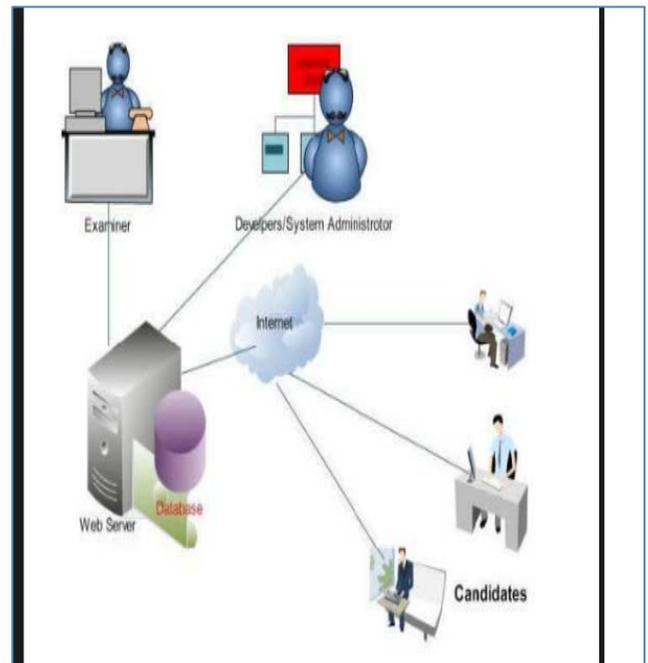
## 1.1 MOTIVATION OF THE PROJECT

In customary framework directing exam is extremely repetitive work for analyst and educator too. The entire procedure of allocating exam and assessing their score after the test was done physically till date. Be that as it may, online examination framework is absolutely electronic framework. The framework goes for diminishing expenses connected with directing exams over a timeframe and accomplishing complete computerization of examination framework related assignments like enlistment, distribution of results, which prompts a high level of framework effectiveness. In the wake of experiencing huge numbers of reference papers at long last we are concluded that

we can manufactured one examination framework that can be give easy to understand access to establish for directing exam and investigation of result.

## 2. Objectives

web based application is used to manage 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 advantages. 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 advantages 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



## 3. SYSTEM DESIGN

### 3.1 Web Server Architecture

Examination Management System is a web based application used to Create and Evaluate Examinations. It is a powerful management system for online exams; provide innovative examination process and assessment solutions to any corporate entities. Our exam management systems are secure and robust; they are also flexible enough to integrate with other 3rd party systems. Our exam management portal is excellent exam management software that can effectively automate and streamline exam planning and execution and has been designed to make the examination processes easier and paper free. It is designed to manage access permissions for different users to prevent misuse and mismanagement of legal and official data by any unauthorized user. It has a general test engine with irregular of questions and answer choices as well as role-based security allowing multiple levels of approval for authors and administrators. It can be used by both IT & Non-IT Sectors

### 3. STATEMENT OF SCOPE

Online Examination arrangement is a Multiple Choice Questions based Examination framework. It provides a simple way to utilize the environment for both test-conductors and understudies showing up for examination. Online Examination System is a web application that sets up a system between the institutions and understudies. Institutions enter on the site the inquiries they need in the exam. These finds are displayed as a test to the qualified understudies. The answers enter by the understudies are then assessed what's more, their score is computed and spared. This score then can be got to by the organizations to focus the passes understudies or to assess their execution. Online Examination System gives the stage yet does not specifically take an interest in, nor is it included in any tests led. It finds are posted not by the site, but comparatively clients of the site. The site requires an organization to hiring before posting the finds The site has a controller who watches out for the general working of the structure.

#### Goals and Objectives are as follows:

- Online examination will diminish the rushed occupation of evaluating the answers given by the applicants physically. Being a coordinated Online examination framework it will decrease paper work.

### 4 AREA OF THE PROJECT

- The main objective of this online exam system is to reduce the work of conducting the exam.
- The online examination system is a web based application which is useful all over the educational and corporate sector.

This online examination system includes the architectural components as Browser-

Server architecture, Client-Server Architecture, Auto Question Generator System, Security.

Many incharges and other testing organizations are looking to computerized tests as an evaluation tool. They find the advantages of saving class time for traditional instruction, automatic grading, and immediate feedback of objective exams.

### 5. ARCHITECTURAL DESIGN

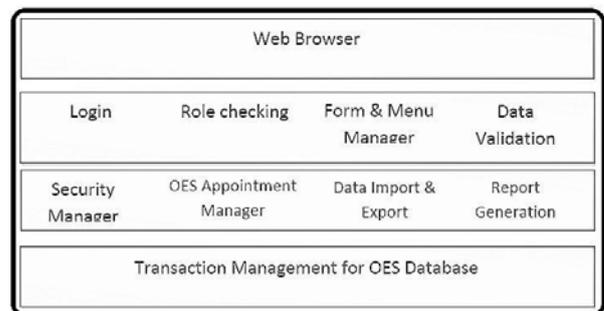


Figure: 2 Architectural Design of the Online Exam System

A description of the program architecture is presented. Subsystem design or Block diagram, Package Diagram, Deployment diagram with description is to be presented

#### Data Design

In this system web program was utilized as a customer, JSP Engine as the business rationale level to accomplish its capacity, and database framework as the information layer

**5.1 Client:** Client was Web Browser, which executed the framework's showcase rational. The capacity was to send demand to the web server through the web programs by the clients (instructors or understudies). While the Web Server return the asked for HTML pages or HTML pages powerfully created by JSP page to the customer, which were appeared in the Web program.

**5.2 Business Logic Tier:** Business rationale level was accomplished primarily by JSP and JavaBeans running the JSP Engine. It reacted to customer demands and accomplished the business rationale with the Web Server. Furthermore, control information, for example, client information. MS ACCESS was utilized to accomplish the information level. The JSP Tomcat, an open source programming, was utilized as the JSP Engine and Web Server.

**5.3 Information Tier:** Data level was acknowledged with database framework, used to store the business information, for example, inquiries and papers improvement model in view of Model 1 is extremely suitable for snappy and little scale application advancement

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