

MINI PROJECT
(2019-20)

Front-end of Online Examination Portal

MID-TERM REPORT



Institute of Engineering & Technology

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Abstract

Online Examination System is a system through which many educational institutions and all users can benefit from. Many institutions use various paper materials and pens to process the manual examination. But in this system, it provides the student information, questionnaires, and answers and automatically computes the scores. It is conducted through the website which improves accessibility for remote candidates. Candidate is given a limited time to answer the questions and after the time expiry the answer paper is disabled automatically and answers is sent to the examiner. The examiner will evaluate answers, either through automated process or manually and the results will be sent to the candidate.

Today many organizations conducts online examinations worldwide successfully and issue results online. There are advantages and disadvantages in online examinations. The advantage is that it can be conducted for remote candidates and evaluation of answers can be fully automated for multiple choice. Questions can be evaluated manually or through automated system, depending on the nature of the questions and the requirements. The disadvantage is there is no method to identify whether the exact students take that exam.

Introduction

1.1 General Introduction to the topic

This document will propose all features and procedures to develop the system. This documentation specially contain details about objectives, scope, design model, primary requirements and finally monitoring and reporting mechanisms.

Online Examination System is very useful for Educational Institute to prepare an exam, save the time that will take to check the paper and prepare mark sheets. It will help the Institute to test students and develop their skills. But the disadvantages of this system is that it takes a lot of time when you prepare the exam for the first time for usage. And we need a number of computers equal to the same number of students taking the exam.

The effective use of "Online Examination System" is that any Educational Institute or training centers can use it to develop their strategy for conducting exams, and for getting better results in less time.

Online Examination is being launched because a need for a destination that is beneficial for both Institutes and students. With this site, institutes can host online exams. Students can takes exams and view their results. This site is an attempt to remove the existing flaws in the manual system of conducting exams. The project will enable educational institutes to conduct test and have automated checking of answers based on the response by the candidates.

1.2 Area of Computer Science

Mainly there are 2 parts of web development in our project :

- 1) Backend Development- Node.js,MySQL
- 2)Frontend Development- HTML,CSS,Javascript

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

JavaScript, often abbreviated as JS, is a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

Node.js is an open-source, cross-platform, JavaScript runtime environment that executes JavaScript code outside of a browser.

MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

1.3.Hardware Requirements

- Hardware recommended by all the software needed.
- RAM: 256 Mb or more
- Hard Drive: 10 GB or more
- Communication hardware to serve client requests .

1.4 Software requirements

- Web Browser
- Webpage editor
- MySQL
- Node.js Editor

Problem Definition

Online Examination is very helpful to users. The aim of this project is to provide quick, immediate and easy way to appear the exam. It can provide special advantages to the students/applicants. The online examination system can automatically add the marks allocated in each question to determine the total mark for the questions. A time limit can be set for the questions. Online Examination System allows jumping to specific questions based on the previous answer.

The online examination system limits the number of times a student can write a question. Login module helps the user to login to the site. For that he/she must type the username and password correctly. The login provision in this page helps the already registered user to directly access the site and there is a link for registration to a user who is new to this site. Student module is mainly for the students. This helps the students to register for the exam and answer the exam. For registration name, address, phone no, role id, password should be entered. This system will provide result after the exam according to correct and wrong answer. Administrator module is mainly for the administrator.

Comparing from different online test portals , the new thing about this project is , it displays the question according the previous recorded answer. Suppose if the current answer for the question given by the student is wrong , then the next question displayed will be easier than the current question and if the recorded answer is correct the next question will be slightly tough than the current question .

Objective

General objective:-

General objective of our project is to change the current manual system into computerized one. This project would be very useful for educational institutes where regular evaluation of students' is required.

Specific objective:-

- Online examination project assesses student by conducting online objective tests.
- Responses by the candidates will be checked automatically.
- It reduces time consumption.
- Being an integrated online examination system reduce paper work.
- Questions can have multiple options, multiple answers or can be text answers.
- To allow department to create tests and answers.
- The result will be shown after some time to the participating students.
- Can generate various report for evaluation purpose when and where required.
- This project will enable educational institutes to conduct test and have automated checking of answers based on the response by the candidates.
- It would enable educational institutes to perform testes quiz and create feedback forms.

Implementation details

Our project title is online front end of examination portal and we designed the user interface of our portal with the help of html , css and javascript in order to make it user-friendly and responsive.

User interface of the examination portal mainly consists of student login and admin login where student can login after filling their credentials and admin can handle frontend as well as backend i.e. adding or removing questions from the database. We have learnt html , css and javascript from w3 schools, and we have also used it in our full stack project.

Backend mainly consists of database handling of the examination portal and we have used MySQL which is an open-source relational database management system for storing questions , answers and details and marks of students and every other detail. Most importantly our project consists of a new technique used which mainly displays next question for students based on the previous answered question, if a student answers a question correctly then the level of next question would be a little tough else the level will be little easy. Backend is maintained by Nodejs which is an open-source, cross-platform, JavaScript runtime environment that executes JavaScript code outside of a browser.

1. Firstly we made a schema of Subject or course and entered some data about that , and fetch that data on from the browser .
2. We made a Responsive website using HTML and CSS.
3. Link that HTML page to Node.js.

4. Fetch Question according to our Requirement, for Example - According to subject or MCQ Type .
5. Set Correct answer of that questions in Node.js

Contribution summary

The project can be divide into 4 broad fields , stated as follows:

- Front End Development
- Back End Part(Node.js)
- Database
- Documentation

Team members are looking to the above parts according to their role:

- Database , Front-End development : Kabir Kararia, Anukriti Pathak
- Back-end Development, Documentation: Aditya Vikram Singh, Gitansh Sehgal

Progress

- Front-end: We have designed almost 70% of UI of website by using HTML, CSS and Javascript. Some of the linking pages are left.
- Backend: Learning stage still in progress. Taking online tutorials of Node.js.
- Database: Installed MySql and categorizing questions based on different subjects and difficulty level
- Documentation: Synopsis and mid-term report submitted , SRS still in progress.

SOME SCREENSHOTS

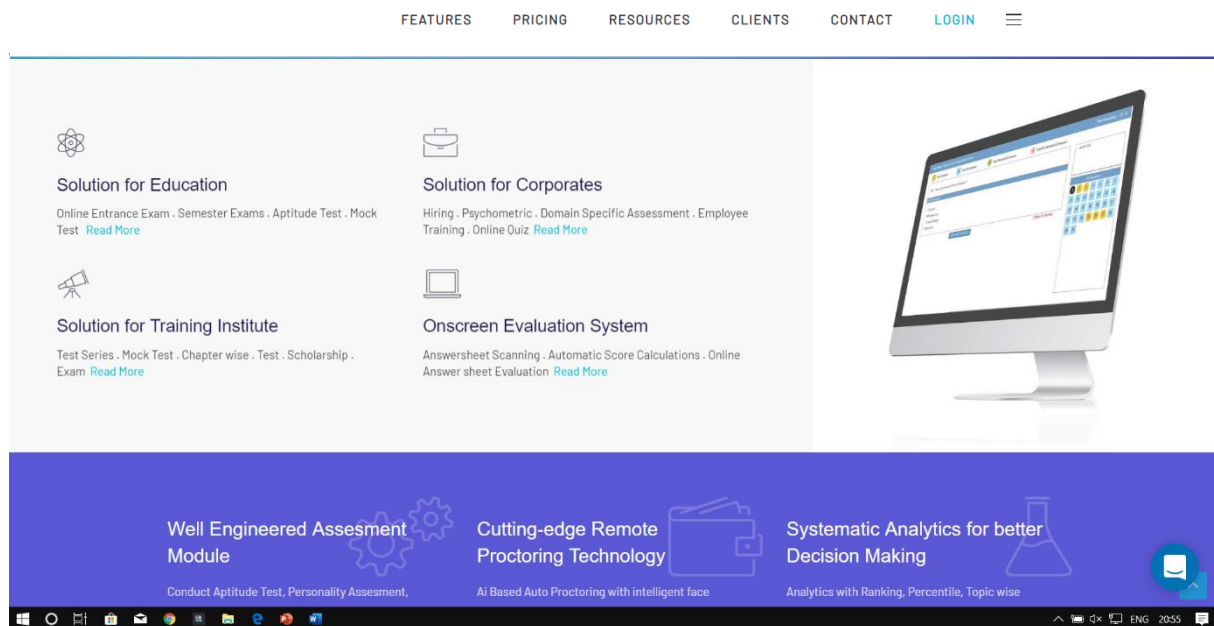


Fig:-1

The screenshot shows a registration form on the website. At the top, the same navigation bar as in Fig:-1 is visible. Below the navigation bar, the form is titled '* Required fields'. The form contains the following fields and labels: 'Your Selected Package : FREE', '*Organisation Name :', 'Organisation Logo : Upload Logo', '*Organisation Admin Person Name :', '*Organisation Admin Email ID :', '*Organisation Admin Mobile :', '*New Password :', and '*Confirm New Password :'. Each field has a corresponding input box. A note below the password fields states: 'Your password should contain 1 capital & 1 case letter with minimum 8 character length'. The Windows taskbar is visible at the bottom of the browser window.

Fig:-2

References

- <https://www.w3schools.com/html/>
- <https://www.w3schools.com/css/default.asp>
- <https://www.w3schools.com/js/default.asp>
- <https://www.w3schools.com/sql/default.asp>
- <https://nodejs.org/en/>