

OnlineExamPortal: Online Examination Portal

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Abstract: In the latest generation of home automation systems, Online examination project could be a web portal which is developed or implemented in HTML, CSS, JavaScript, SVELTE, PHP, MYSQL or platform. This project is helpful for students to practice different mock examinations from this site. In current generation lots of the examinations like GRE, CAT and MAT.... Etc. is conducted through online system. This project will help students to get practiced to online examination method by taking mock tests from this web portal. Online examination portal is implemented in & modules student examination Admin module will add multiple courses under different branches so students can easily know about test details. Student examination module students ought to register with application and choose interested courses and participate in the online test..

Keywords: Online examination

I. INTRODUCTION

The purpose of on-line test simulator is to take online test in an efficient manner and no time wasting for checking the paper. The main objective of on-line test simulator is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. For students they give papers according to their convenience and time and there is no need of using extra things like paper, pen etc.

Mapping your course content and exam questions is paramount to teaching and education. It's what gives us the satisfaction that we're on track and that what was intended to be taught and addressed in questions is actually done.

You will have the opportunity to choose from a variety of questions from the question bank of the online examination software system

In summary, steganography is a way to hide secret information within normal files, providing a covert and secure method of communication. It has advantages over traditional encryption, but there are challenges and ethical concerns to consider. Understanding steganography helps us navigate its potential benefits and limitations in the digital world.

Online Exam Portal Fundamentals

Online Examination System Development

Online Examination System Development According to systematic functional analysis, logical model of the system can be derived. In the state of examination, examination server will respond to the examination request and start the examination process. The examinee opens the browser, log on to the examination server and enter the examination state.

The Real-Time Monitoring System

The real-time monitoring system requires students not to leave the computer during the test by face tracking technology. The data transmission encryption system transmits the examination question and result in secret form through the network to the server. The examination monitor system is also the manager of the examination system, by which we can monitor the test processing, carry out test ID statistic and collect the answers, etc.

Database Design

The database was designed with Microsoft SQL Server 2005. The database itself consists of four simply designed tables. As you view the table, you will notice that the primary key for the database, a compound key, was selected as unique identifier. The entities and relationships in the main codes maps directly to object classes and named

relationship. The first table contains information about the student. It contains seven fields. They are UserName, PassWord, ExamPin, MatricNo, Name, Phone, Email, ImageUrl, and RegisteredDate. The second table has information about Exams. It has four fields. They include: ExamId, ExamName, ExamScore, PassingScore. The third table keeps information about Score. It has seven fields.

These fields include the following: ScoreId, ExamName, MatricNo, TestDate, PassingScore, StudentScore and StudentName.

The forth and last table houses information about the questions. It has ten fields.

The fields include: QuestionId, ExamId, QuestionNo, Question, OptionA, OptionB, OptionC, OptionD, CorrectAnswer as well as Mark.

II. TECHNOLOGY USES

Front End as :

HTML:-HTML is an acronym which stands for **Hyper Text Markup Language** which is used for creating web pages and web applications. HTML works by using a series of tags to inform a browser what it should be doing with text on page and where it should be loading further resources from. There are over 100 HTML tags currently available to use, although most sites will only need a handful of these to work as they should. There are three HTML tags that are necessary for each page. These are <html>, <head>, and <body>. To indicate to a webpage that you are using HTML, each page will open with <html> and close with </html>. The <head> tag contains metadata not visible on-page but important for functionality, and the <body> tag denotes where the body content of a page resides. Each of these necessary elements can only be used once per page. The basic structure of common HTML tags is detailed below:

CSS :- CSS stands for Cascading Style Sheets. It is a style sheet language which is used to describe the look and formatting of a document written in markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces. To understand the basics of how CSS works, you must first understand a little about modern HTML. Web developers lay out pages according to the "box model." A Web page is a series of boxes, each containing a discrete element. These boxes are nested, one inside another. For example, a page's header is a box, and it contains several smaller boxes comprising all the elements that make up a header: logo, navigation, social media buttons, shopping cart buttons, etc. Using CSS, a developer assigns styles to the "header" box.

JavaScript: JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

It was developed by Brendan Eich, the language was first implemented by Netscape communications corp in 1995. JavaScript was originally developed under the name Mocha, later it called as LIVESCRIPT. But, changed to javascript when it was deployed in the Netscape browser version 2.0B3, as a marketing ploy by Sun Microsystems and Netscape. Javascript is totally different from java languages, but the naming rules are quite similar. Client side java scripts can be directly embedded into HTML web pages. While battling with Microsoft over web, netscape offered their client side script over distributed operating system, running a portable version of Sun Microsystems java, because java was a direct competitor of c++, aimed at professional developers. Netscape wanted a light-weight programming language that might complement java by appealing to non-professional developers like Microsoft's Visual Basic.

Svelte :- Svelte is a modern JavaScript framework used to build static web apps that are fast, lean, and are fun for developers to use. You can use Svelte to build single, reusable components for projects of any kind, including larger applications written with Angular, React, Vue, or any other frameworks. Svelte is a free and open-source front end component framework or language created by Rich Harris and maintained by the Svelte core team members. Svelte is not a monolithic JavaScript library imported by applications: instead, Svelte compiles HTML templates to specialized code that manipulates the DOM directly, which may reduce the size of transferred files and give better client performance.

Application code is also processed by the compiler, inserting calls to automatically recompute data and re-render UI elements when the data they depend on is modified. This also avoids the overhead associated with runtime intermediate representations, such as virtual DOM unlike traditional frameworks (such as React and Vue) which carry out the bulk of their work at runtime, *i.e.* in the browser.

Back End as: -

PHP:- PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side. PHP is well suited for web development. Therefore, it is used to develop web applications (an application that executes on the server and generates the dynamic page.)

The first version of PHP was launched 26 years ago. Now it's on version 8, released in November 2020, but version 7 remains the most widely used. PHP runs on the Zend engine, which is the most popular implementation. There are some other implementations as well, like parrot, HPVM (Hip Hop Virtual Machine), and Hip Hop, created by Facebook. PHP is mostly used for making web servers. It runs on the browser and is also capable of running in the command line. So, if you don't feel like showing your code output in the browser, you can show it in the terminal. Nowadays, there's an intense debate on whether PHP is on the decline or not. This is because of the advent and increasing popularity of other languages suited for the server-side such as JavaScript (Node JS), Python, Golang, and others. But is PHP really dying? The answer is no. Despite some people bashing on it and the claims of decline, PHP is still used to run the servers of almost 80% of all websites today. So, if you visit 10 websites a day, there's a chance that 8 of them use PHP. you must have PHP installed on your local machine. You can get that done by installing an XAMP (Cross-Platform, Apache, MySQL, and PHP) or WAMP (Windows, Apache, MySQL, and PHP) server.

Database as:

-SQL:- SQL is a language to operate databases; it includes Database Creation, Deletion, Fetching Data Rows, Modifying & Deleting Data rows, etc.

SQL stands for **Structured Query Language** which is a computer language for storing, manipulating and retrieving data stored in a relational database. SQL was developed in the 1970s by IBM Computer Scientists and became a standard of the American National Standards Institute (ANSI) in 1986, and the International Organization for Standardization (ISO) in 1987.

III. FUTURE ENHANCEMENTS

take exams anytime, anywhere: with our online exam portal, students can take exams anytime, anywhere, using any device with an internet connection.

create and manage exams easily: our portal makes it easy for teachers to create and manage exams, with features like multiple question types, time limits, and automatic grading.

monitor student performance: with our portal, administrators can monitor student performance and identify areas for improvement, with detailed analytics and reporting.

ensure exam security: our portal uses advanced security measures to prevent cheating and ensure the integrity of exams, with features like randomized questions and answers, and secure login credentials.

improve student learning outcomes: by providing students with timely feedback and performance analytics, our portal can help improve learning outcomes and support student success.

enhance teaching effectiveness: our portal can also enhance teaching effectiveness by providing teachers with valuable insights into student performance, with features like automatic grading and detailed analytics.

streamline exam administration: with our portal, exam administration becomes streamlined and efficient, with features like online exam delivery, automated grading, and real-time analytics.

personalized learning experience: our portal can also provide a personalized learning experience for students, with features like adaptive testing and tailored study materials based on performance.

IV. CONCLUSION

Significance of User-centric Interfaces:

- The Online test System is developed using HTML, CSS, JavaScript, Svelte, MYSQL and PHP fully meets the objectives of the system for which it has been developed.
- The system has reached a steady state where all bugs have been eliminated.
- The system is operated at a high level of efficiency, and all the teachers and user associated with the system understands its advantage.
- The system solves the problem. It was intended to solve as requirement specification.

- This can be used in educational institutions as well as in corporate world.
- Can be used anywhere any time as it is a web-based application (user location doesn't matter).
- No restriction that examiner must be present when the candidate takes the test.