

ONLINE EXAMINATION SYSTEM

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Abstract— Online exams are becoming more and more common and important. Due to the popularity of the Internet, it is becoming increasingly important to conduct exams online and evaluate their results. Online examinations are used to assess employees' and students' domain knowledge of the relevant technology. The manual approach utilized to administer exams is time-consuming and error-prone. The system's goal is to fully automate the outdated manual process of administering exams with an online web-based examination system. Through this project, administrators, instructors, and students taking an online examination can communicate with the system, enabling efficient implementation and monitoring of various online examination activities like conducting exams on a scheduled basis and delivering results to that specific user or student. Additionally, the administrator maintains the information on students who took the online examination.

Keywords: manual, monitoring, online examination

I. INTRODUCTION

Separating teaching from conducting examinations was made easier by the examination system. It encouraged teachers to thoroughly arrange their lessons and deliver them to the class. It served as a crucial tool for assessing the impact of instruction. Otherwise, it encouraged students to diligently study, attend a lecture, and complete their homework on their own. Therefore, by offering improved technical support, the Examination System might raise the teaching standard. The teacher could decide the score and variety of questions within the examination system we created, depending on their requirements. The exam paper was then created at random by the examination system in compliance with the specifications.

In order to make the teaching content develop synchronously with technology, the Examination System could readily update and add questions while taking course content development into account. Students had access to online testing using the examination system. The technology allowed students to connect at any time via the school network, test themselves, determine their level of understanding, and modify their learning progress.

II. OBJECTIVE

The Online Examination Tool's goal is to give users of the

system greater information so they can maintain student examination schedules and grading details with better results. An online learning environment provides facilities for conducting exams and evaluating their results. An instructor creates

course-based questions that are online and must be solved within a specified duration. In order to take part in the online exams, users who have registered on the platform can access and give the exam and carry out a variety of tasks with the online educational system.

Users can access an online exam for the course that includes multimedia content, and they can electronically submit their exam responses. The grade or marks earned in their exams are given to them when the allotted exam time has passed. The goals of the online examination system, or rather the purpose of any exam (online examination system), are to ensure that the student understands the course material completely. Finally in the end the result of the exam accurately represents what the student has studied. The key to teaching and educating is mapping your course material and exam questions. It's what makes us feel like we're on the right road and that the material that was supposed to be taught and covered in the questions is actually being done. For this reason, having structured courses, such as credit hours or weight, and item mapping to establish the best designed exam questions is one of the top advantages of online examination for students and teachers both.

Online examination system used to assess employees' and students' domain knowledge of the relevant technology. Due to human limitations, the manual approach utilized to administer exams is time-consuming and error-prone. The system's goal is to fully automate the outdated manual process of administering exams with an online web-based examination system. Through this project, administrators, instructors, and students taking an online exam can communicate with the system, enabling efficient implementation and monitoring of various online examination activities like conducting exams on a scheduled basis and delivering results to that specific user or student. Additionally, the administrator maintains the information on students who took the online examination.

III. LITERATURE SURVEY

(A) **EXISTING SYSTEM:** Up until this point, the entire test-assignment and score-evaluation process was carried out

manually. When the software was not installed, processing the exam paper, which involved checking and distributing respective scores, took time.

The current system is manual, with users maintaining books to keep track of information including student information, instructor information, schedule information, and comments from students who showed up for exams on time. Historical data maintenance is quite challenging.

The lengthy, laborious conducting and evaluating procedures of the conventional examination system. The traditional technique is required to have a physical campus, sufficient professors and study materials, seating arrangements, etc. the lengthy, laborious conducting and evaluating procedures of the conventional examination system. The verification of answers and result processing are extensive and prone to error in paper-based exams. Exam papers cannot be customized for each student, and there is a danger that they will leak when they are delivered to various testing sites. Students who are physically challenged have limited access to such established educational and testing practices. Writing the papers and getting to college could be challenges for them.[1]

(B) **PROPOSED SYSTEM:** To administer online exams, utilize this application. The students can log in to write the exam during the allotted time at their own terminals. The students must receive the questions.

This programme will solve the problem, show the outcome right away, and record the information in a database. The administrator has the option to add new exams using this programme. With the help of this application, the instructor can alter and add questions to a specific exam. The administrator, instructor, and student authentication are handled by this programme.

Online exams use fewer resources than traditional exams on paper. There is less need for academics and staff because students can quickly access the tests online. Additionally, online testing eliminates the need for stationary and the printing of tests and other instructional materials that are needed to administer a pen-and-paper test. The online exam technologies provide you with prompt, precise answers within the allotted time. Online test scoring is simpler than traditional exam marking, which benefits educators by saving time. The evaluation is prompt, dependable, and precise. The outcome of an online examination is more precise.[2]

The recruiter only needs to email candidates for the position, and millions of people will receive it. The accessibility of online assessment to students with impairments is a significant benefit. Computers can be adapted to accommodate people with different physical limitations.

IV. METHODOLOGY

This initiative evaluates pupils by administering online objective assessments. The exams would be extremely adaptable. This project will allow educational institutions to run tests and have automatic verification of answers based on

applicant responses.

The concept allows professors to design their own assessments. It would allow educational institutions to administer examinations, quizzes, and construct feedback forms. This project would be very useful for educational institutes where regular evaluation of students' is required. Further it can also be useful for anyone who requires feedback based on objective type responses.

(A) TECHNOLOGIES USED

Technologies used to develop the front end of the system are:

HTML: The most used markup language for internet pages is HTML, or Hyper Text Markup Language. It defines the structure of documents by specifying structural semantics for text elements, as well as links, quotations, and other objects. It allows for the embedding of images and objects and can be used to create interactive forms.[3]

CSS: CSS is a style sheet language that is used to indicate how a document produced in a markup language such as HTML or XML should be displayed. CSS is designed to segregate text from visual elements such as layout, colors, and fonts. This separation can improve the accessibility of content, provide greater flexibility and control in the definition of presentation characteristics, allow multiple web pages to share formatting by specifying the relevant CSS in a separate.css file, reduce complexity and repetition in structural content, and allow the cached.css file to improve page load speeds between pages that share the file and its formatting.[4]

Javascript: JavaScript is a scripting language that permits programmatic access to items in both the client and other programmes. It is most typically used as client-side JavaScript, which is implemented as an

integrated component of the web browser and enables the creation of better user interfaces and dynamic websites. [5]

To support the backend the following have been used:

PHP: The term "HTTP Preprocessor" refers to a general-purpose scripting language that was originally designed for web development in order to build dynamic web pages. It is frequently embedded in HTML and runs on a web server configured to parse PHP code and generate web page content from it. It is free to install on almost any operating system and platform, including most web servers. PHP has evolved to include a command line interface and can now be used in standalone graphical applications.

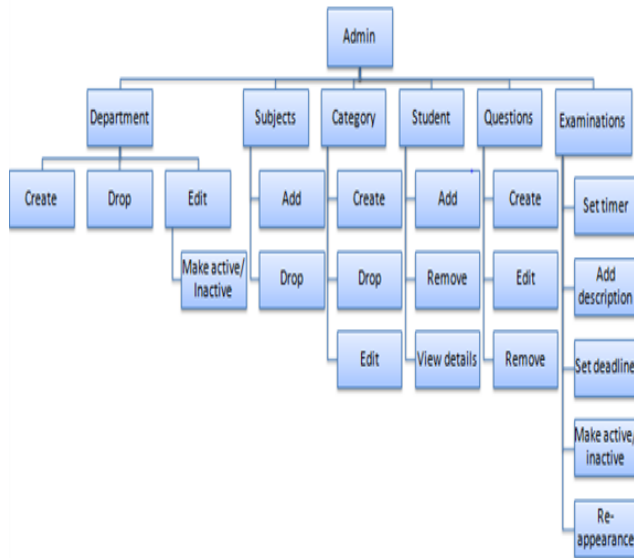
MySQL: MySQL is a relational database management system built on the Structured Query Language, the most widely used language for accessing and managing database entries. MySQL is open-source software that is offered under the GNU General Public License. Oracle Corporation stands behind it.

A database is a piece of software that stores a structured collection of records. It is quite easy for the user to access and manage. It allows us to quickly find important information by organizing data into tables, rows, columns, and indexes. Each

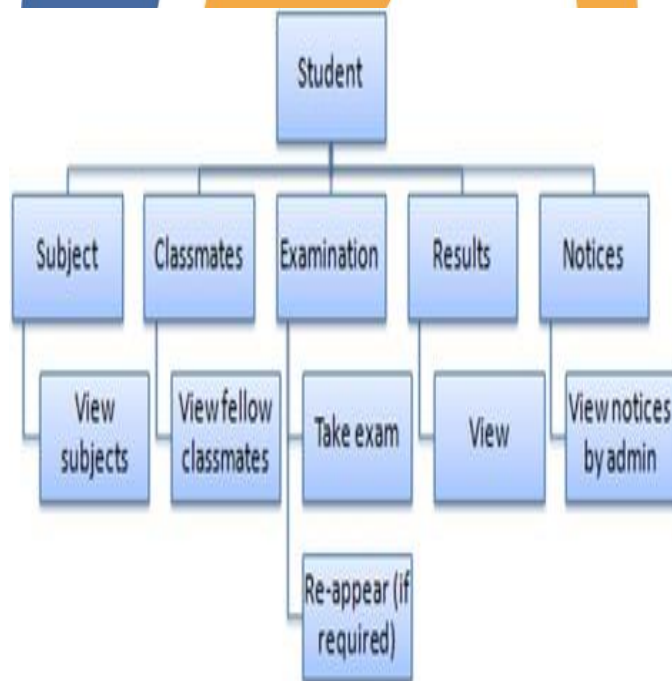
database has its own API for doing database functions such as generating, updating, accessing, and searching for data.[6]

FUNCTIONALITY

Admin controls aspects



Student control aspects



V. RECOMMENDATIONS

1. Current system can be extended to accommodate multiple correct answers
2. The current system could be improved to accommodate subjective and integer only type responses
3. Proctoring can be incorporated for a more reliable testing experience
4. In case questions and/or answers need to be in graphics, current system has no provision, it can be improved to accommodate graphics

VI. DRAWBACKS AND RECOMMENDATIONS

We've come to know plenty of advantages and disadvantages since technology was invented, but it can't be ignored that all technologies have drawbacks. Some of them are as follows:

1. Technological glitches We'll have to admit there are a number of people that don't know how technology works and use the old method, so it is necessary to provide them with appropriate guidance.
2. The availability of facilities. There are requirements for equipment both on and offline exams, but we need power supply and reliable internet in the Internet exam.
3. Limitations in the types of questions. The examinations shall be carried out using a system that is independently assessed. Although it is the teachers who have first and foremost designed the examination questions, there are major shortcomings in assessing them on a closed basis. Such are the kinds in which there's a majority of one word answers or, to be more precise, they're Objective types.
4. There's a high probability of cheating. Cheating in the course of an examination has always been a problem, which is why we have used all available time and resources to hire staff for monitoring. The system is good enough not to be compromised in an online exam, but there's still a chance of cheating. Dishonesty in which the applicant is replaced by someone other than himself is one such form. The use of smart watches or smartphones that allow them to hack into your examination can also form part of this.
5. External materials shall be used
All measures have been taken to ensure students do not cheat at traditional examinations. You can't have any external material, such as books or devices. It is much more likely for students to look at their aid material when they take the test from anywhere and that makes it an open book study which does not do

them any good. This is a major disadvantage for facilitating online examinations.[7]

VII. CONCLUSION

We should get ready for the changes that will take place in the coming years because we are now living in a modern age. Although a change in the way tests are administered may seem shocking and difficult, it is doable with the correct strategy.

A test result may determine a significant portion of a person's life, so it is crucial to handle online exams correctly. As a result, it is crucial to ensure that an online exam system is safe, pertinent, accessible, and fair. Although this new testing format could appear intimidating, change is always perplexing and perhaps frightening. Despite the uncertainty, it all comes down to how we conduct ourselves. Online exams are getting more and more common and important. Many universities and colleges have abandoned the conventional pen-and-paper method in favor of the more contemporary online tests.

Modern social conventions that encourage social distance have led to the use of new technology for safe online assessment procedures. Online Examination system is a user-friendly system that is incredibly simple and practical to utilize as the online examination system. The system is finished because it works, has been tested by users entering data, and produces accurate reports.[8]

Online examinations have undoubtedly evolved into a more effective method of evaluating candidates' knowledge and aptitude. They give educational institutions the freedom to easily establish, administer, and assess examinees.[9] After the students have finished the test, the results can be announced right away thanks to swift evaluation and real-time report generating. By automating time-consuming and laborious activities that were previously done in person, online exams have revolutionized the education sector.

REFERENCES

- [1] <https://www.conductexam.com/blog/online-exams-vs-traditional-pen-paper-exams>
- [2] https://www.academia.edu/6338470/Project_Report_On_Online_Examination_System_Submitted_By_Guided_By
- [3] <https://www.w3schools.com/html/>
- [4] <https://www.w3schools.com/css/>
- [5] <https://www.w3schools.com/js>
- [6] <http://www.mysql.com>
- [7] <https://intellectualgyani.com> [8] <http://www.ijims.com/process/downloadPDF.php?id=474#:~:text=Conclusion%3A,the%20reports%20in%20proper%20order.>
- [9] <https://blog.mettl.com/guide/online-examination/>

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