

ANDROID APP FOR ONLINE EXAMINATION AND RESULTS SYSTEMS

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ABSTRACT

Abstract: The Online Examination System is a software that allows any institute or sector to arrange, administer, and monitor examinations via the internet. This is achievable under Internet/Local Area Network (LAN) conditions. It's possible. Delays in result processing, arranging problems, and keeping records are some of the concerns that can arise during physical examination systems. It's difficult to avoid bad record management and manual record searching. The system's upkeep is also difficult, time-consuming, and exhausting. One of the most important aspects of an online education system is the online test. It is well-organized, efficient, and saves a significant quantity of material resources. On the web, a testing system has evolved. The paper explains the system's principle, shows the system's primary functions, and explores the system's security.

Keywords: Hardware: Mobile Phones , Pc Or Laptop , Software; Java ,Mysql, XML, Android Studio.

I. INTRODUCTION

The "Online Examination System" has been advanced to override the issues winning within the training guide machine. This software program is supported to dispose of and in a few instances lessen the hardships confronted via way of means of this current machine. Moreover this machine is designed for the precise want of the organization to perform operations in a clean and powerful manner. The utility is decreased as plenty as feasible to keep away from mistakes whilst getting into the records. It additionally presents blunders message whilst getting into invalid records. No formal information is wanted for the person to apply this machine. Thus via way of means of this all it proves it's far person-friendly. Online Examination System , as defined above, can result in blunders free. secure, dependable and rapid control machine. It can help the person to pay attention on their different sports as an alternative to pay attention at the report keeping. Thus it's going to assist corporation in higher usage of resources. Every corporation, .ether large or small, has demanding situations to and dealing with the statistics of Long Question, Exam, True-False Question, Answer, Matching Question. Every Online Examination System has distinctive Exam needs, consequently we layout distinctive worker control structures which might be tailored in your managerial requirements. This is designed to help in strategic planning, and could assist you make sure that your corporation is ready with the proper degree of statistics and information in your destiny goals. Also, for the ones busy govt who're usually at the go, our structures include far flung get admission to features, in an effort to permit you to manage In on-line exam machine store the checks statistics in a database , instructors can add/delete questions, set the proper answers, specify the examination period, sign up college students ,delete college students , display questions for college kids randomly, calculate and display the very last outcomes for college kids. A. System layout The on-line exam machine makes use of customer / server architecture. At the customer via way of means of the use of an internet browser can join through net or neighborhood host with the server in which Java and MySQL within side the server aspect are chargeable for the getting ready checks methods and store and go back records from database. Figure 1 constitute a top level view of on-line exam on-line exam machine store the checks statistics in a database , instructors can add/delete questions, set the correct answers, specify the examination period, sign up college students delete college students , display questions for college students randomly, calculate and display the very last outcomes for student.

II. RELATED OF LITERATURE REVIEWS

Paper [1]: "Online Examination System" International Advanced Research Journal in Science, Engineering, and Technology, ISO 3297:2007 Certified Vol. 4, Issue 3, March 2017. " Muna R. Hameed, Firas. A. Abdullatif "

The primary goal of this study is to design a computer-based testing system (CBTS). CBTS is a web-based online assessment method that was created to address concerns such as a shortage of time. Students log-off upon

expiration of allowed time, result integrity, guaranty, stand-alone deployment, need for flexibility, robustness, designed to support examination processes and overcome challenges framing the conduct of examination auto-marking, auto-submission, and generation report of examination results.. It has a feature to share information among departments, user groups and institutes, not like the other online examination systems on the market.

Examiners are evaluated in this paper using the online examination system idea. The tests will be completely customised. Based on the responses of the students, this system will automatically check the results. An internet-based examination system which is flexible for teachers to set and control the student examinations. It special authentication protocols to ensure transactions between the examination server and the student

Paper [2]: " Bharat S. Rawal, Yong Wang, Deborah L. Jegatha, Karthika R., Vijayakumar P., Deborah L. Jegatha, Karthika R., Vijayakumar P., Deborah L. Jegatha, Karthika R., Vijayakumar P. " 2019 IEEE Canadian Conference of Electrical and Computer Engineering (CCECE)", " Secure Online Examination System for e-learning ".

The purpose of this study was to develop a system that would employ a web camera to watch students and prevent them from cheating during an exam.

The photos of the system are captured by the system. student at regular periods for monitoring and storage as evidence of cheating employs . As a result, without the assistance of a proctor, this technique prevents misconduct during the examination. This technique does away with the requirement for a proctor to oversee the examination, preventing students from exchanging information. Every student's image is monitored by the proctor .It's not possible. It overloads the network and causes storage problems.

Paper [3] : "Xiaojun GUO, Chanle WU, Yibo CHEN, Ming XIE, " Interactive Items-Based Online Examination System "978-1-4244-7255-0/11/\$26.00 2011 IEEE

The goal of this study is to offer a method for computer comprehension of diagrams and demonstrate how it may be successfully used to the automatic marking of student attempts in math. ER diagrams (entity-relationship) diagrams The automatic marker has been integrated into a revision tool, allowing students to practise diagramming while also receiving feedback on their efforts. However, they have focused their current work on entity-relationship diagrams, with little research on other diagram kinds.

In this work, XML technology was used to create an online item bank system.. A generating module, an answer setting module, an auto grading module, and a test report generating module are all included in the internal system. For implementation, each feature has its own XML module. Our research was inspired by the concept, and we applied XML technology in the auto-grading module.

Paper [4]: " Online Examination System with Cheating Prevention Using Question Bank Randomization and Tab Locking, 978-1-7281-1019-6/19/\$31.00, Samuel S. Chua, Joshuel B. Bondad, Zechariah R. Lumapas, Joven DL. Garcia IEEE, 2019.

The goal of this article is to show that the proctor was unable to keep track of each examination. Exam randomization has the potential to address academic malpractice, and this would be beneficial. Examiners with various exams that would prevent them from committing such activities

The project's minor goal is to When compared to its manual examination counterpart, online examination results are assessed by a computer, saving time and money. Modifications to the examination system concept have been implemented based on the advantages of the internet by establishing a website with the proctor sets the questions and answers for the online exam. Said technique is reviewed by the computer in terms of reviewing the outcomes, saving the proctor's important time in manually reviewing papers while also providing clear analytics and feedback on specific learning outcome clusters of the learners in terms of strengths and areas for growth.

[5]: " Mobile Examination System," 2012 2nd IEEE International Conference on Parallel, Distributed, and Grid Computing, Prashant K Gupta, IT Department, IITM, G.G.S.I.P University.

This article is based on a database of questions. As a result, the disturbing of creating the question paper is avoided. Unlike the traditional exam, the result is displayed to the student immediately after the exam is completed. Traditional examination system, in which the student must wait a few months for the results to be released. Because the question paper is prepared based on a random selection of questions from the database, each student can take the examination at any time during the month or year that is convenient for them.

III. REQUIREMENTS ANALYSIS

Modules of online Examination system: Modules of the online examination system are as follows: Exam management module: This module is used to keep track of exam details. Matching Question Module: This module is used to manage the Matching Question information. Answer Module: This module is used to manage the details of an Answer. Long Question Management Module: This module is used to manage the Long Question's information and data. The True False Quest is managed using the Short Question Module specifics. True False Question Module: This module is used to manage the True False Question data. Longin Module: This module is used to manage the login information. Users Module: This module is used to manage the system's users.

SYSTEM DESIGN (BACK END)

Database design

This system's databases are categorized into three parts.

3.1.1 user database

This section has only one database called 'personnel.' It contains three tables: the table 'student,' which stores the information of all registered students, the table 'teachers,' which stores the information of instructors who have the authority to use this system, and the table 'administrator,' which stores the administrator's information.

3.1.2 Subject-specific database

This section contains the system's standard subject databases. One database is dedicated to a single assignment. The number of tables in the database is determined by the number of subject categories in the respective subject. This design is quite useful for management.

3.1.3 Testing databases

This section has two databases: database 'paper' and database 'testresult.' When the teacher picks the approach of creating a decided paper, the database 'paper' is utilised to store determined subjects. As a result, this database can only be utilised once (it will be replaced by other subjects for other course). In truth, there is no structural distinction between this database and other conventional subject databases.

When the strategy is to create a certain paper, it simply selects all of the individuals in this database, rather than selecting a specific number of subjects at random. The database 'testresult' is used to hold the test results, as the name implies. It contains multiple tables. The table 'testinfo' is used to keep the list of students who will take this exam as well as their test results, including subjective and objective subject scores. Table 'report' is an accessorial table that is used to search up all previous records. Furthermore, each tested student has a database titled after his or her student number, which is used to keep his or her objective answers and points. The organisation of the databases is depicted in Fig. 1:

3.1.4 Designing an interface

The interface is divided into three sections: students', teachers', and administrators'. To enter the system with different identities, each lawful user need a username and password.

Administrator's interface

Account management, database management, and system administration are among the administrator's possible functions. The account administration function is responsible for managing the accounts of students, teachers, and administrators, including account lookup, update, deletion, and addition. The database management function is responsible for completing database-related operations. Figure 2 depicts the detailed function: The system management function is responsible for carrying out certain system actions, such as inserting students' names by EXCEL file into the database, deleting the list in batches, changing students' passwords in batches, clearing table 'report,' forcing the test to halt and restarting the test.

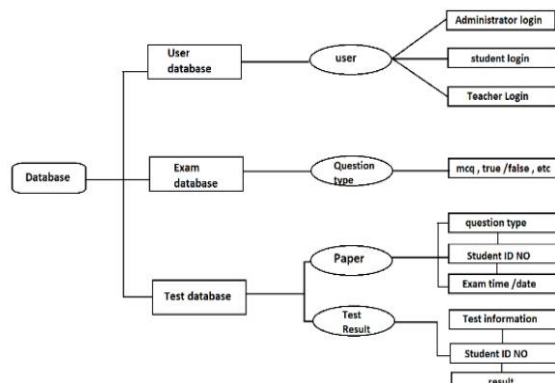


Figure 1: Database Of Exam

IV. USER INTERFACE AND FUNCTIONING (FRONTEND)

The simplicity with which a person can learn to operate, prepare inputs for, and use a product is referred to as usability. System or component outputs are interpreted. A system's usability is increased or decreased. The user interface's usability and complexity make it less stressful. As a result, system is the part of the system with which the end user interacts. A system's user interface is thus the part of the system with which the end user interacts. User interface design is concerned with how users enter information into the system and how the system interacts with the users. The system returns information to them.

Modules of system

Student aspect

When a student opens the web application, he is taken to the homepage where he must register and then verify his phone number. And then you can view examinations that you have to take and also in the reporting section.

Student login:

- Log in to the system using your user ID and password.

Student dashboard:

1. The student has the ability to manage his or her profile.
2. Display previous test results as well as upcoming exam date and time.

Exam module:

1. To begin the exam, select exam and confirm.
2. The exam is given by the student.
3. Student complete the exam.
4. Show the outcome and analysis.

Logout:

Students must check out and end the session after the exam

Admin module:

Admin/ Examiner can perform various operations such as question management, adding, deleting of questions or types of questions. such as single, multiple type questions, true or false, match the following, or image matching. Admin will be responsible for the student management for approving the registration. And also reschedule for the exam time and date. Admin also has permission to show the result of student.

Exam management

1. **Login:**-Login page for the administrator and coordinator. All admin and coordinators are identified by the username, password. Administrator and coordinator can create new examination maintain question banks as per there choice.
2. **Users:**- It show list of users registered in the site and also can edit there profile.
3. **Examination:**-Add and remove edit the examination details such as schedule of paper and display of results.
4. **Question Bank:**-administrator as to add, remove of exam. he has to manage the question and exam paper.
5. **Results:**-admin as the right to give result after the exam over or wait for particular date.
6. **Logout:**- after work done the admin need to logout and end the session.

V. SYSTEM IMPLEMENTATION

The system structure of online examination system is based on PHP language and MySQL database. In this system, Web browser was used as client. In order to complete use of server feature, it is very important to make sure that the database is well managed and well designed. The procedure of managing the MySQL database diverse according to the host. Each database requires a well managed user_id and password, in order to access the system server.

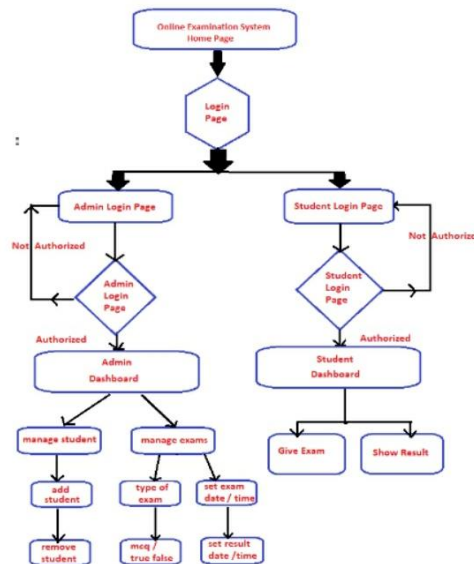


Figure 2: UI Structure

general specification of the online examination system is shown below in fig(2)

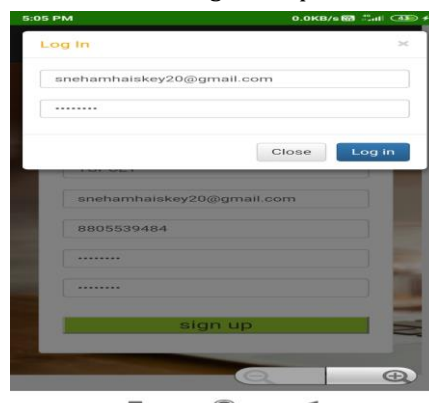
Interfaces of system 5.3.1 home page is the site of the online examination system under the exam methods category in fig. (3)



Fig.Home page

Login interface

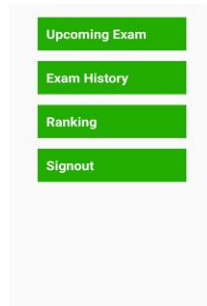
The login module assists users (students or examiner) in logging in to the site. This page's provision allows previously registered users to immediately access the site. In this case, Page space has been provided for the user (students) to submit their relevant information login and password.



Login Page

Dashboard of admin

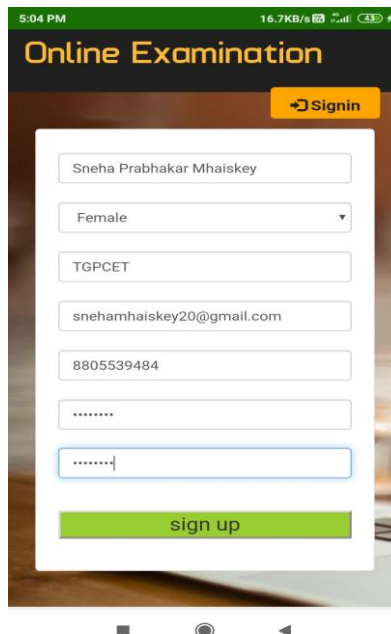
This admin panel is quite useful for quickly accessing all admin tools. The teacher will specify the course name and title, as well as the time and day of the test. which is shown figure.



Dashboard Of Exam

Admin view for registered user:

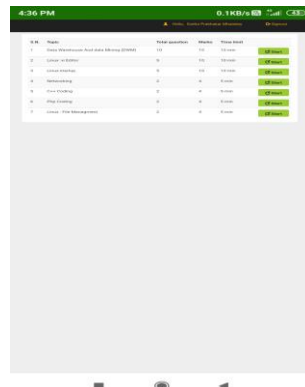
admin can add/remove student or can see detail about user shown in fig



Registration Page

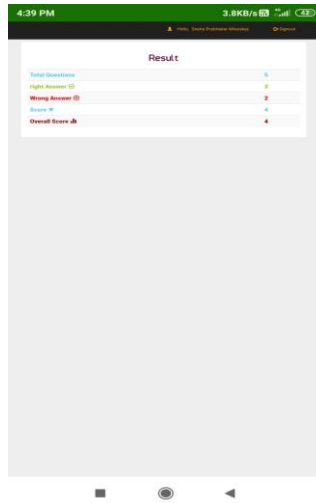
Exam management

After establishing the examination, the teacher will proceed to establish the examination's questions. This platform will be used to draw up questions, and the proper answer to each question will be marked by the professor.

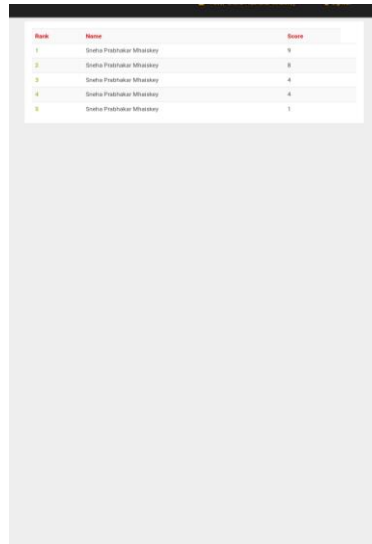


Exam Page

Result Page



Ranking Page



Ranking System Page

VI. RESULT DISCUSSION

The gadget analyst assumes the function of interrogator and delves deeply into the modern-day gadget's operation. An on line exam gadget features in addition to a conventional pen-and-paper examination. The majority of on line check software program available in the marketplace these days looks after all the examination necessities and processes. This accommodates pupil registration, the advent of query papers, the exam of reaction scripts, the project of roll numbers and invigilators, and so on. The following is a prolonged explanation. Pre-Examination Procedures A top notch on line check portal 4should be capable of cope with all your examination-associated issues at as soon as. Such troubles start properly earlier than examination day, with a slew of demanding situations that every college should cope with. First, while an organization makes use of on line examination software program to manage exams, it should sign in with the platform to make certain a easy experience. There isn't anyt any in addition rate for taking examinations as soon as this registration is done. For the organization, that is a long way much less luxurious than pen and paper tests. On demand, establishments can get a unfastened demo of the web check software program. Exam Creation: Using on line examination software program, any instructor can assemble tests. 1It isn't always essential to have any technical knowledge.

VII. CONCLUSION

Using an open supply language gives us greater flexibility, but at the same time it required greater time to be programed. The proposed Online Examination System (OES) can be easily adopted by universities and

establishments in order to make the examination greater secure and greater flexible. The gadget is subdivided into two major subsystems (pupil and administrator) which can be designed to give the gadget maximum benefit by demonstrating carefully every subsystem service. In detail, you may get an advantage. The administrator's features are honestly identified to be capable of manage user's records consisting of add (sign in), delete users and managing in addition to controlling check substances and content, consisting of including and putting off questions. The advised gadget is straight forward and flexible considering that every element may be maintained and changed with inside the future. It's feasible to deal with it one after the other from the relaxation of the gadget.

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