

ONLINE EXAMINATION SYSTEM

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Abstract

Online Examination System is software solution, which allows a particular company or institute to arrange, conduct and manage examinations via an online environment. This can be done through the Internet, Intranet or Local Area Network. Some of the problems faced by manual examination systems are delay in result processing, long poses a problem entering of records is not easy. The chance of loss of records is high and also record searching is difficult. Maintenance of the system is also very difficult and takes lot of time and effort.

Key Words: Online exams, Online Proctoring.

Chapter 1: INTRODUCTION

Manual Examinations problems are associated with its main center of focus on education in our country. Online Exams have got surprising momentum especially during the pandemic. Almost every college is switching their traditional exam format to Online Examination. They are Able to Conduct mcq exams with help of available platforms but the platforms lack strong candidate verification. Moreover, those platforms have increased the malpractices of candidate during exam. Hence, we introduce this study. The main objective is to developing this project is to provide fast way of conducting exam through online exams we can save time expanding between paper and result. Publications of result also take a very long time owing to which students remain idle for months. The main idea behind developing this project is to provide fast way of conducting exam through internet in secure environment. Students from different areas have to visit for query regarding filling up application form, payment of fees, examination date, syllabus, results etc. thus wasting students precious time. To solve the problem of manual examination writing, I proposed an application that will provide a working environment that will be exile and will provide ease of work and will reduce the time for report generation and other paper works.

Chapter 2: LITERATURE SURVEY

[1] This paper aims to detect student's competencies by designing and implementing an adaptive online exam system which will determine different questions sets automatically and interactively for each student. The tools and software's which is used in this project are firebase for storing the database, application server layer, a browser from client side, JAVA and Xml programming language, Android Studio for developing the android based application. The project that has been developed is based on android application and to develop this project we need to know basic concepts and related techniques. So, following are brief details of technologies the project consists.

[2] Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (ADT) as the primary IDE for formative Android application development.

[3] The motivation behind this paper is to secure the existing online examination which are very susceptible to conduct the online examination which are very susceptible to impersonation and cheating.

[4] AS use of MODC (massive open online courses) has been increased tremendously in the ongoing pandemic there is need of E-proctoring during the conduction of online exams remote places. Visual, Audio and Speech surveillance can be used using the audio and camera of monitored or whether the candidate is switching the tab can be detected. A fuzzy cognitive map model can be used in the study. It uses the advantage of fuzzy logic to help in decision making by studying different factors related E-learning.

[5] This paper is about building web-based application test management system. The proposed system has different features like good architecture designs ease of uses, rich features, flexibilities and extensibilities. In this system they included the feature of using multimedia in the question framework. the result of the test will be get on firebase it can be converted into different file format

like excel sheet. The individual result of candidate can be also viewed.

[6] Since the traditional have many drawbacks such as time consuming, Difficulty of analyzing the test manually, More observers are required to take exam of many students, Results are not accurate since calculations is done manually, the chance of losing exam's result is higher in current systems, checking of result is time consuming since it done manually, Limitation of no of student can give examination at a time. with the development of information technology and use it in an orderly and properly helps to overcome the existing error in the manual system. Online examination system saves the exams information in a database, and this make it an easier way to give exam teachers can add their exams rules, and student can give exam in a totally automated system.

Chapter 3: METHODOLOGY

This project's aim to create android based application that can be used to conduct manage online exams and have better security. The application will reduce the chance of student malicious activities and creates a secure exam environment. This application will have different levels of candidate authentication like username password. Teacher will have a separate login to this application which he/she can use to create classes and exams. The no. of students to the course will remain in hands of the respective teacher.

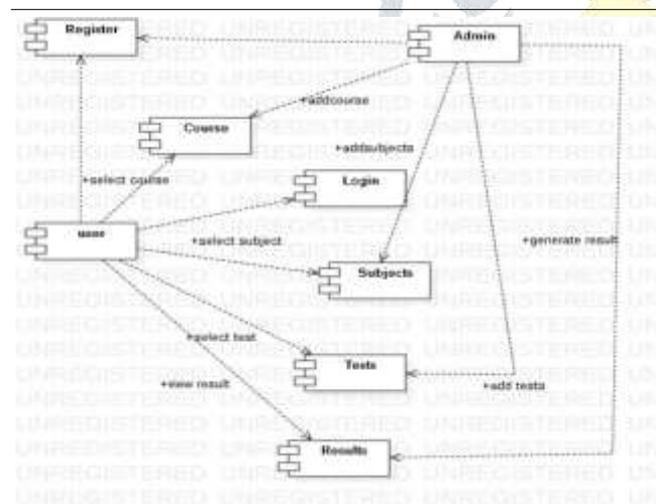


Fig -1: Flow Chart Diagram of Proposed System

Fig-1 Shows how the software will function right from the start. Student will be given unique ID after registration on this application and he/she can change the password later. The teacher will admit student to course and schedule the exam along with uploading the question. Students can access the exam using the exam key provided by administrator. Each student will get randomly shuffled questions which has to solve in allotted time.

This Activity show that what Technology I am using for my Front-End and Back-End and which Database. So, I am using XML for Front-End and Java for Back End. I am using

Fire-Base Database. So, in my Code Firstly User Will Login or Register and teacher will only register by user defined id and password then the Fire-Base Authentication will be instantiated to authenticate user and then main functionality of my project will work. So, at student/teacher end Mobile Application will be there, user will just use mobile by connecting to the Internet and then login and attempting the required test asset by the teacher. Teacher can simply login by the predefined credentials and set the exam for multiple students and view scores of each student who are appearing for the test. Students can also view their scores of previous given tests.

1.Administrator module: The administrator module does the function of system management, add the registered information of the user to the system data base.

2. Teacher module: The teacher module includes test management module, automatic organizing of examination paper, examination-paper management, paper analysis, result and so on.

3. Student module: The student module has login option to attend the exam and after completing and submitting the exam the result is immediately generate.

4. Functionality of the System:

Login: For any student to be eligible for the examination, they must be registered. During registration, student fill a form and also given login credentials i.e. a username, password.

Logout: Logout enables the student to return to the login page, after writing the exams.

Create Questions: Create questions enables the admin to create the questions. The admin input the question, options and then input the correct answer and finally clicks submit.

View Result: Once the student submits the test a score sheet that comprise the result can be viewed. **Timer:** The timer was implement using AJAX. The timer enables student to see the time allocated to the exam. The timer is start counting from 1000 and decrement to 0. Once the timer decrement to zero the system logout student.

5.Creating Database: it is a relational database which will contain all the entities and its attributes.

Front end: The design layout of software and how it will interact with the user using Xml and Java language.

Back end: After creating front end and back end will be developed contains the mechanism of application This will communicate with the database as well as front end language.

Features: To make online securities the only limited time is given to the particular questions. These features will be added in back end development and then will be used for proctoring purposes.

Chapter 4. FACILITIES REQUIRED

Software requirements:

- 1.Android Studio
- 2.Java, Xml
- 3.Firebase

Hardware Requirements:

- 1.Processor-Dual Core
- 2.Memory-1GB ram
- 3.Internet Connection
- 4.Webcam and Microphone

Chapter 5. CONCLUSION

In this paper we have discussed how a secure online exam management system can be created that can prevent will different malpractices. This system will be beneficial as it will provide enhanced candidate authentication and verification and reduce the problem of student impersonation. The teacher will be able to proctor the student and keep a track of his/her activities throughout the exam. This system is totally online leading or no usage of paper. The cost of the system is zero. Students can use the app for free. This system can be more reliable and efficient platform for conducting online examination.

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