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Online Proctored Examination System using AI/ML

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ABSTRACT: Abstract to the Project The traditional method of assessment (examination) is often characterized by examination question leakages, and human errors during the marking of scripts and the recording of scores. The technological advancement in the field of computer science has necessitated the need for computer usage in majorly areas of human life and endeavors, the education sector not excluded. This system developed using a combination of JSP, Java, Servlets, SQL, and Dreamweaver can reduce the proportion of workload on examination, grading and reviewing on the part of examiners.

• Brief Description: -

- 1] Our Portal includes all the details about offered courses, skills we will learn from that course, why we should opt for that course, details of a contact, features of online examination, and brief details about our Institute.
- 2] The admin section admin can register students for the course using their details. After registering, students' Login credentials will be sent to Students Mobile no. Using this he can log in to give exams on the portal.
- 3] Admin can schedule exams for the courses using exam details like Course name, Exam Start Date and Time, Exam end Date and Time, No. Of Questions.

KEYWORDS: Proctored Examination System, Artificial Intelligence, Machine Learning, Online Examination System, Face Detection, Face Recognition, Facial Movements Detection.

I. INTRODUCTION

The traditional system of assessment (Examination) is frequently characterized by examination question leakages, mortal crimes during the marking of scripts and recording of scores. The technological advancement in the field of computer wisdom has needed the need for computer operation in majorly all areas of mortal life and endeavors, education sector not barred. This work, Web-grounded Examination System (WES) was, born out of the will to impede the problems anguishing the conventional(paper-grounded) examination system by furnishing a lot-wide service fore-assessment devoid of irregularities and generally fair to examinees and inversely enhances instant feedback. This system developed using a combination of JSP, Java, Servlets, SQL, and Dreamweaver is able of reducing the proportion of workload on examination, grading, and reviewing on the part of observers. This Portal includes all the details about offered courses, chops They will learn from that course, why They should conclude for that course, details of a contact, features of online examination, and brief details about our institute. The admin section admin can register scholars for a particular course using their details. After registering, the scholar's Login credentials will be transferred to Students Mobile no. Using this he can log in to give a test on the portal. Admin can record tests for a particular course using test details like Course name, Exam start Date and Time, test end Date and Time, No. Of Questions. By choosing a particular course, the admin can view the result of all the scholars registered and given a test of that course. The student section includes functions like My profile, test schedule, view Result, and progress map. The pupil can start the test which will be only active for a particular period and will deflect to the Instructions runner, the instruction runner includes all the instructions, and after checking the checkbox pupil can click on the continue button also, it will deflect to the main test window. If two faces descry while giving the test it will induce the multi-face discovery warning. There is also voice recognition, it generates a warning If it detects any kind of voice. This is all about the Proctored online examination system using ai/ml.

Problem Definition

E-examination, as used in this project, refers to a system that involves the conduct of examinations through the web or the intranet using the computer system. Lately, because Internet and database technology have been completely developed, CBT which ahead was formerly hosted only on computers(PCs) or original area networks(LANs), has now



gradationally been upgraded to work on the Internet using cybersurfs as the test interface so that druggies can use it anywhere in the world.

Area of the project

- The main objective of the project is to reduce paper-based exams.
- Because it is a web-based online examination system everyone can access it anywhere in the world. These are the main motives of the project.

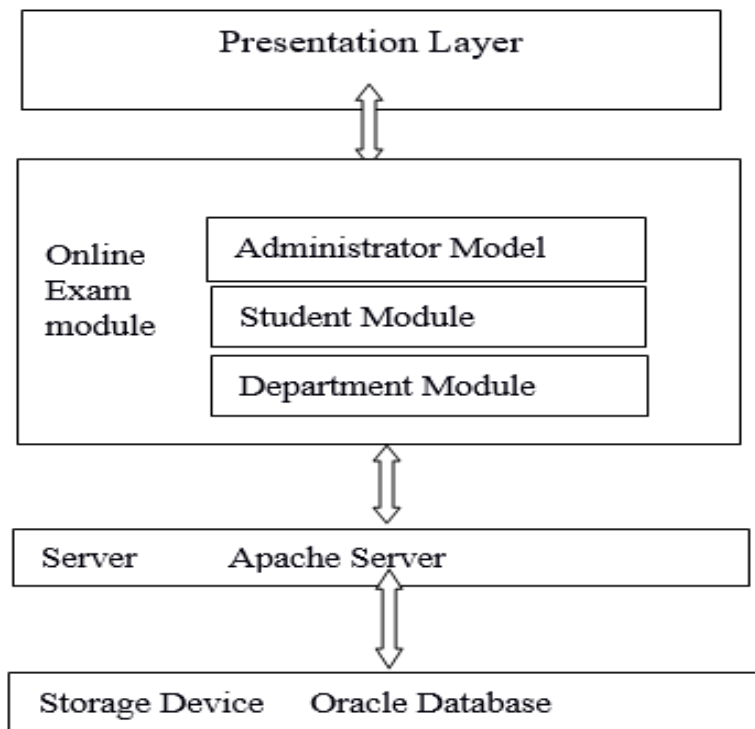
This project's online proctored examination portal also uses an architecture like client-server architecture also browser-server architecture.

Proposed System

The system operation which is designed is introduced step by step given below.

- Online exam software is a computer program that provides the knowledge of test-takers in a specific subject through conducting online tests.
- Candidate can give the exam after login into the site.
- Admin is adding questions to the database.
- Admin can edit or delete the question from the database.
- After login and registering the exam will be scheduled.
- Candidate able to give exam.
- Upload an Excel sheet and Create a Question Form.
- Candidate view result.
- Admin send result print of Registered candidate email.
- Admin view progress bar of the candidate.

A. Architecture Diagram



II. LITERATURE REVIEW

Many different researches have focused on the subject of an examination system online these work can be represent as following: SIETTE: Guzman and Conejo (2005) propose an online examination systems called System of Intelligent Evaluation using Tests for Tele-education (SIETTE). SIETTE is a webbased environment and application to generate adaptive tests. It can be used for instructional objectives, via combining adaptive student self-assessment test questions with hints and feedback. SIETTE supports secure login and portability feature. Otherside, The other feature: resumption capability and ability, multiinstructor and trainer, random questions selection, random question distribution and random choices and options distribution are missing[3]. EMS: Rashad Et. Al. (2010) proposed a webbased online examination system using ml and ai called management system of exam (EMS). exam management system manages the examination and auto-grading for students and employees exams and supports conducting exams also collects the answers, auto mark the submissions, and produce the reports for the test. EMS supports secure login, multi-instructor, and portability features. However, the other features: resumption capability, random question selection and random question distribution or classification, and random choices distribution are missing[4]. ArvindSingh, NirajShirke, KiranShette 2011: The project evaluates the examiner by using the system of online examination concept. The exams will be totally customizable. This system will check results automatically basing on students answers. CBTS :Fagbola et. al. (2013) developed and created a Comp Based Test System (CBTS). CBTS is a webbased system of online examination developed and created to addresses issues such as less of timing flexibility for automation candidates log-off upon deletion of allowed time, result integrity and guaranty also stand-alone deployment, need for flexibility, robustness, aslo designed to support the examination processes, overcome challenges framing the conduct and finalized of examination, auto-9 marking and auto submission and generation report of examination result. Remote/online examination and proctoring are generally gaining importance in the wake of the accommodation of comfort and security and accessibility and readiability. This will not just now increases the importance of course and remote based examinations but it also helps in MOOCs(mass open online courses) and other certification based on credit for the concern of establishing credibility. The proposed online examination software and online system webapp monitoring system uses advanced and secure and reliable and comfortnesscomforness Artificial Intelligence to monitor to the students and employees and review the examination. Web-based automated and selenium online examination system which detects all unusual activities, flags them to fair surity proposition of exams. Invigilation of the online exam is not restrictes to a fixed time or actual test grounds any longer time. This has revoked an interest in the assortment of online remote examination arrangements and supporting technological advancements. [2] In this web based application, we presents a strategy to stay long from the actual presence of a delegate all the test by making an exhaustive performance of multiple tasks frameworks. This assessment framework utilizes fewer assets and lessens the requirement for Que & Ans contents also test room bookings or organizing invigilators to test corridor has planning with inspectors, and that's just the beginning. The online examination system uses client/server architecture methodology. The proposed framework is simple and adaptable on account of future up keep also improvement because every one sub system can be taken care of independently without effect on another framework. The customer by utilizing the internet for browser can associates the web and neighborhood have with the servers like PHP and MySQL in the server side liable for the getting ready tests cycles also save or return information from data set. It is important to make assure that the data set is much planned. The documents names picked to mark the tables made in the info. base endeavor to mirror the table's motivation and also thusly, add to a well-plan framework. Utilizing an open-source 10 languages give us great adaptability and it is required more opportunities to be modified and upgraded.

III. CONCLUSION

Online examination system has a unique and user-friendly User Interface with system, which is very easy and convenient to use and very very useful to everyone like students, admins, company employees. The online examination system is fully in the sense of complete that it is operational and it is also tested by creating and entering data and getting the reports in main order. But it has a scope for improvement and enhancement. During the development of this, coding standards are followed for easy maintainability.

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