



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 8, Issue 3 - V8I3-1334)

Available online at: <https://www.ijariit.com>

Online Exam Portal

Aditya P. Singh

yoyoyashusingh71456@gmail.com

Galgotias University, Greater Noida, Uttar Pradesh

Surendra Singh Chauhan

surendrahitesh1983@gmail.com

Galgotias University, Greater Noida, Uttar Pradesh

ABSTRACT

Online Examination Portal (OEP) is an electronic assessment framework wherever assessments are given on the online either through the net utilizing the computer framework. The elemental aim of the web communication device is to properly assess the students via a processed device that saves the specified time and provides speedy and correct outcomes. Advances in innovation in recent and ages have upheld the viability of an online assessment and have rested the cycle of an online assessment throughout the long run. However, several institutes, particularly in higher institutional companies, have standardized written examination contrivance ways in growing countries. The web assessment framework improves the approach toward leading tests and compellingly making ready the outcomes. This work talks about the electronic online assessment framework and a safer instrument to steer AN assessment. AN OEP could be a viable and nice declare a mass coaching assessment.

Keywords: *Hypertext Preprocessor (PHP), Web Applications, Assessment Frameworks, Database, Web Server Component.*

1. INTRODUCTION

The online assessments, that also are referred to as e-assessments, are the web-based assessments given through the net [1]. these days varied associations, school, universities are measure taking assessments on this web-based system and saying on-line outcomes. In these coronavirus circumstances [2], such a well-liked framework can right facilitate to require the net assessments.

These are measure varied edges Associate in Nursing disservices of an online check. it's okay directed for distant understudies that are measure primarily helpful. The risks of this on-line communication are measure the incapacity of invigilating. The other inconvenience is that the user verification within the online assessment framework utilizes login username and secret phrase [3], that is not secure. during this manner, this work chooses to utilize alternative safer confirmation techniques to boost the protection of the web assessment framework [4].

Today, OEP is viewed as a quick-creating assessment strategy supported its exactitude and speed. It needed less work force to

deals with this net project [5]. In a recent era, most companies take Associate in Nursing assessment by Associate in Nursing online assessment framework, that diminishes Associate in Nursing understudy's amount in assessments. Organizations could likewise adequately screen the advancement of the understudy that they furnish thorough examination. Subsequently, the result is set in an exceedingly restricted time. It likewise helps in reducing the wants of a paper, which ends up in damaging fewer trees. An online assessment project integrate PHP is extraordinarily useful to learn [6].

As per the current pre-requisite on-line assessment framework, the instructive institution must set up the tests, manage the time, check check copies, and set up outcome results [7]. an internet assessment the framework encourages instructive institutions to screen their understudies, keep observance on their advancement. Institutes utterly utilize this the framework that helps in addressing the tests and gets the outcomes merely and profitably. Until the present time, the look for tests and putting in place the outcomes were performed physically, requiring a lot of time and energy to complete the task.

This paper chiefly focuses on the requirement and growing demand for OEP utilized by varied companies, skilled training companies, universities for taking exams. The remainder of this paper is organized within the following ways. Section a pair of reviews a varied investigation that has been done concerning Associate in Nursing OEP. Section three describes the various methodology utilized in Associate in Nursing OEP. it's divided into 2 stages; the primary one is that the arrangement stage second one is that the check stage. Section four outlines the current drawback statement created by offline communication conduction. Section five discusses the planned system of the OEP This section additionally reviews the requirement for an internet exam system over Associate in Nursing offline communication system is. In section discussion is formed that why the web communication system came into existence. Some future scopes are measure examined in section seven, whereas section eight concludes a summary of this paper

1.1 Formulation of Problem

Since the traditional have many drawbacks such as time consuming, Difficulty of analysing 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 theirs exams rules , and student can give exam in a totally automated system

2. LITERATURE REVIEW

Various investigates been done regarding the matter of an online assessment framework which can be addressed as given points:

Fagbol et al. [8] proposed a system called a Computer Based System (CBS). CBS is a web-based Online Exam System (OES) designed to help an examination process and resolve challenges such as absence of scheduling adaptability for automation, an applicant log-off upon a permission period, outcome integrity, an assurance, an independent execution, need for adaptability, robustness, built for supporting examination process and address challenges such as exam behavior, auto checking, auto accommodation and a report generation of the exam result.

Ayo et al. [9] proposed a model called E-examination implementation. The software was created at a Nigerian private university. Developing such software is to conduct the Joint Admission Matriculation Board (JAMB) entrance exam for all Nigerian universities. Convent University, a private university in Nigeria, was responsible for developing and testing this program. They considered the program to be instrumental in programming and ordinary investigation.

Wei et al. [10] built a framework called Online Assessment Framework (OEF). OEF upholds some exceptional fundamental features like auto-generation of rank and results, auto-generation of questions, working inquiries like programming, altering MS Word, PowerPoint, MS Windows, Excel, and so on.

Rashad et al. [11] proposed a web-based framework named Exam Management Assessment(EMA). EMA has all essential highlights like overseeing assessment, assessing understudy's answers, conducting the assessment, and incorporating auto imprint for the accommodation, secure login.

Arvind Singh, Niraj Shrike, Kiran Shetty [12] proposed a system called OES. OES is a customizable system. Students' answers are checked automatically and fastly. Guzan and Conejo et al. [13] proposed OES called SITTIE Automatic Assessment Environment. SITTIE is a web-based tool for creating and modifying adaptive experiments. It can be used to achieve instructional goals by combining self-evaluation test questions with feedback and hints. Other features include resumption ability, multi- invigilators, random question collection, irregular inquiries circulation, random distribution of choice.

M una R. Hameed et al. [14] proposed a system called OES.OES has been built using Php and MySQL. Using open-source technologies gives more flexibility to the software's. It is used by many technologies, training firms, etc. The principle to construct the framework isn't just to decrease the necessary time yet additionally to acquire quick and exact outcomes.

The OEP utilizes client/user design. By utilizing an internet browser, the client connects with the serverside via the internet

or localhost. MySQL and PHP reside on server-side, for preparing the examination process and saves the information that are returned from the database

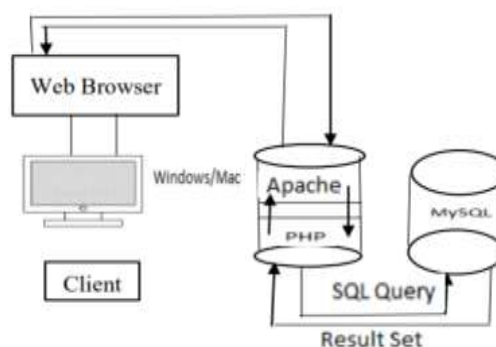


Figure 1: System design overview of Online Examination Portal

3. FUNCTIONALITY/WORKING OF PROJECT

This work plan to build up a framework to identify a wide assortment of unfair practices during the web assessment and lead a fair test. Our proposed online assessment framework has two stages, the initial one is the preparation stage, and the second one is the test stage. In the preparation stage, the competitor needs to verify himself before beginning the test by utilizing login username and password with OTP [15]. This phase includes screen sharing and recording the entire assessment measure to ensure that the applicant is not permitted to change to different tabs during the assessment. No subsequent individual is permitted to enter into a similar room during the entire term of assessment. In the second section that's the test stage, the candidate gives an exam under non-stop monitoring. The advantages of the proposed framework are that the safety carries in the new framework. The new proposed framework is easy to understand, and quick entries can be made in this framework. In a complete cycle, no manual integration is required [16]. Understudy can test from any spot of the world 24x7; there are no topographical boundaries—100% rightness in marks computation and result affirmation. The diverse inquiry set for various applicants. Structured Systems Analysis and Design Methodology (SSADM). It was used to conduct this study. This work also has compelling reasons for using this approach. The SSADM approach is widely used in the analysis and design phases of system growth. It receives a prescriptive way to deal with data framework improvement. It determines ahead of time the modules, stages, and undertaking which must be done, the expectations to be created, and the strategies used to create the expectations.

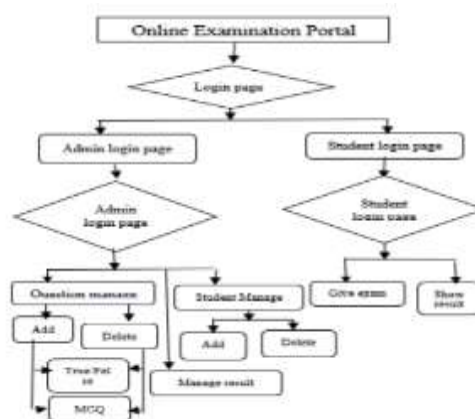


Fig 2: System implementation of Online Exam Portal

The Sequence diagram is usually referred to the Interaction diagram. This form of diagram generally deals with sequences that flow from one object to the next. It is important to remember that the relationship between the modules of the system matters when it comes to implementation and execution. This is the OEP login sequence diagram, which shows how administrators can access their accounts using their credentials. Admin will handle all operations on students, courses, papers, exams, and marks after logging in. All pages, including papers, exams, and marks, are safe, and users can access them after logging in

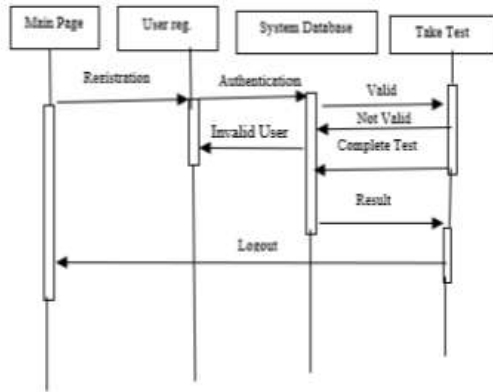


Fig 3: Sequence diagram of Online Exam Portal

This diagram represents what are the boundaries and scope of OnLine Exam System project. It describes the Main objective of the system and its entities involved. The context diagram of On-line Exam System.

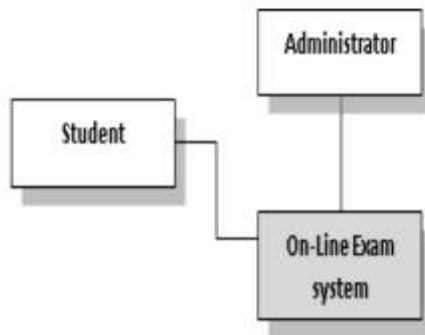


Figure 4: Context Diagram

The Administrator can be done the following:

- Create/delete accounts (add a list of faculty names and list of his student)
- Change password for Faculty/Student
- Create/ delete/update courses (subject).
- Insert/Update Questions

The Student can be done the following:

- Change password.
- Review Questions

4. RESULTS AND DISCUSSION

Earlier there has been a manual entry of the information of the student who has registered already. Furthermore, it is hard for each understudy to go to the examination place and show up for the exam. Earlier in the online assessment framework, there is a need to make registration or application structure; making and printing question papers [20] physically is a difficult task. What is more, computing the number of students enrolled and checking the details of every single understudy in a month

physically is troublesome and tedious. It requires lots of time and wastage of cash as it requires every part of human assets to do that. Another issue is that the chance of errors. The disadvantage of the existing framework is that additional time needs for making question paper and wastage of time to check good and wrong answers, which can now be done effectively in an online framework. Manually calculation of marks for a significant number of understudies is also a challenging task. There is an opportunity for human mistakeness. There is likewise counted the number of students who can show up for papers at the same time.

5. CONCLUSION

This research paper introduces a secure system for internet-based exam invigilation, whose work maintains academic integrity in e-learning. This webbased system is convenient and user-friendly for utilizing, from the candidate's perspective, as it only needs one laptop which contains a webcam and microphone. We can extract six essential components from the recorded videos and audio: speech detection, user verification, phone detection, and gaze estimation. Moreover, with screen sharing, we can extract active window detection. These features help in conducting a fair online examination. Utilizing publicly available language offers us more suppleness, and yet more opportunity is required to coded. The prospective of OEP could effectively embrace institutes and foundations for making the test safer and more malleable. The framework is partitioned into two primary modules (understudy or overseer), making the framework most extreme by cautiously showing every module service. The admin capacities are unmistakably distinguished to have the option for controlling client's data like add (register), acting on the test like add, delete the question

6. FUTURE SCOPE

- In our future we are decided to provide more security to our website which cannot be hack.
- We are aiming to provide some online authentication processes for giving extra security to prevent our website from any type of attack.
- We are deciding our website will automatically generate report card

We have made an online assessment framework, and we will be dealing with it in the future and will make a great deal of improvement like-

1. Voice acknowledgment.
2. Fingerprint validation.
3. Facial recognition acknowledgment

7. REFERENCES

[1] D. Rhys Gwynllyw; Iain S. Weir; Karen L. Henderson. (2015). Using dewis and R for MULTISTAGED STATISTICS e-Assessments. Teaching Mathematics and Its Applications, 35(1), 14-26. Doi:10.1093/teamat/hrv018

[2] Hosseini E.; Ghafoor K. Z., Sadiq A. S., Guizani M., & Emrouznejad A. (2020). COVID-19 optimizer Algorithm, modelling and controlling of Coronavirus distribution process. IEEE Journal of Biomedical and Health Informatics, 24(10), 2765-2775. Doi:10.1109/jbhi.2020.3012487

[3] Tang Y., & Liu L. (2015). Privacy-preserving multikeyword search in information networks. IEEE Transactions on Knowledge and Data Engineering, 27(9), 2424-2437. Doi:10.1109/tkde.2015.2407330

[4] Meng D., Hou R., Shi G., Tu B., Yu A., Zhu Z., Yang Y. (2020). Built-in security computer: Deploying securityfirst

- architecture using active security processor. IEEE Transactions on Computers, 69(11), 1571-1583. Doi:10.1109/tc.2020.3011748
- [5] Warin B., Talbi O., Kolsk, C., & Hoogstoel, F. (2016). Multi-Role project (MRP): A New project-based learning method for STEM. IEEE Transactions on Education, 59(2), 137-146. Doi:10.1109/te.2015.2462809
- [6] Ismail S. I., Abdullah R., Kar S. A., Fadzal, N., Husni H., & Omar H. M. (2017). Online project evaluation and supervision System (OPENS) for final year project proposal development process. 2017 IEEE 15th Student Conference on Research and Development (SCORED). Doi:10.1109/scored.2017.8305392
- [7] Jiang Y., & Wang J. (2016). Partial copy detection in videos: A benchmark and an evaluation of popular methods. IEEE Transactions on Big Data, 2(1), 32-42. Doi:10.1109/tbdata.2016.2530714
- [8] M. Fagbol; Baale Adebisi & Oke A. (2013). Computer Based Test (CBT) System for University Academic Enterprise Examination.
- [9] Ayo, Charles & Akinyemi, I.O. & Adebisi, Ayodele & Ekong, Uyinomen. (2007). The prospects of Examination implementation in Nigeria. The Turkish Online Journal of Distance Education.
- [10] Wei L., Cong Z., & Zhiwei Y. (2010). Fingerprint based identity authentication for online examination system. 2010 Second International Workshop on Education Technology and Computer Science. Doi:10.1109/etcs.2010.409
- [11] M. Z. Rashad; M. S. Kandil; A. E. Hassan, and M. A. Zaher, "An Arabic Web-Based Exam Management System", International Journal of Electrical and Computer Sciences (IJECS-IJENS), Vol. 10, No. 1, pp. 35- 41, February 2010. Doi:10.1109/etcs.2010.413
- [12] Arvind Singh; Niraj Shirke; Kiran Shette, "Online Examination Portal," 2011. Doi:10.1109/etcs.2010.415
- [13] Conejo R., Guzmán E., & Trella M. (2015). The siette automatic assessment environment. International Journal of Artificial Intelligence in Education, 26(1), 270-292. Doi:10.1007/s40593-015- 0078-4
- [14] Hameed M. R., & Abdullatif F. A. (2017). Online examination system. IARJSET, 4(3), 106-110. Doi:10.17148/iarjset.2017.4321
- [15] Erdem E., & Sandikkaya M. T. (2019). Otp as—one time password as a service. IEEE Transactions on Information Forensics and Security, 14(3), 743-756. Doi:10.1109/tifs.2018.2866025
- [16] Ikeura R., & Inooka H. (1994). Manual control approach to the teaching of a ROBOT TASK. IEEE Transactions on Systems, Man, and Cybernetics, 24(9), 1339-1346. Doi:10.1109/21.310510
- [17] Beneventano D., Bergamaschi S., Lodi S., & Sartori C. (1998). Consistency checking in complex object database schemata with integrity constraints. IEEE Transactions on Knowledge and Data Engineering, 10(4), 576-598. Doi:10.1109/69.706058
- [18] Kim Y., & Ahn C. (2018). Effect of combined use of flipped learning and inquiry-based learning on a system modelling and control course. IEEE Transactions on Education, 61(2), 136-142. Doi:10.1109/te.2017.2774194
- [19] Eyada M. M., Saber W., El Genidy M. M., & Amer, F. (2020). Performance evaluation of iot data management using mongodb versus mysql databases in different cloud environments. IEEE Access, 8, 110656-110668. Doi:10.1109/access.2020.3002164
- [20] Lan Y., Wang S., & Jiang J. (2019). Knowledge base question answering with a matching-aggregation model and question-specific contextual relations. IEEE/ACM Transactions on Audio, Speech, and Language Processing, 27(10), 1629-1638. Doi:10.1109/taslp.2019.2926125
- [21] Richter R., Gottschlich C., Mentch, L., Thai D. H., & Huckemann S. F. (2019). Smudge noise for quality estimation of fingerprints and its validation. IEEE Transactions on Information Forensics and Security, 14(8), 1963-1974. Doi:10.1109/tifs.2018.2889258
- [22] Tinoco L., Fox E. and Barnette D: Online evaluation in WWW-based the courseware, In Proceedings of the 28 SIGCSE Technical Symposium (1997), pp. 194-198.
- [23] Online Examination System, <https://www.eklavvya.in> (accessed April 2, 2021).
- [24] Online Exam System, <https://www.melimu.com> (accessed March 31, 2021).