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WebBased online Secured Exam

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Abstract

Online exam is field that is very popular and made many security assurances. Then also it fails to control cheating. Online exams have not been widely adopted well, but online education is adopted and using all over the world without any security issues. An online exam is defined in this project as one that takes place over the insecure Internet, and where no proctor is in the same location as the examinees. This project proposes an enhanced secure filled online exam management environment mediated by using remote monitoring and control of ports and input. The target domain of this project is that of online exams for any subject's contests in any level of study, as well as exams in online university courses with students in various remote locations. This project proposes easy solution to the issue of security and cheating for online exams. This solution uses an enhanced Security Control system in the Online Exam (SeCOnE) which is based on group cryptography with an e-monitoring scheme.

Indexed terms: cheating control, e-monotoring, Online Exam, secure Exam management

Introduction

Online exam can be rapidly increased in the world. Difficulty to attend the exam in the particular time and place can be over come by the online exam. In this online exam student can misuses this facility by cheating the exam in various way like, getting the answer from local hard disk, chatting with the friends and searching the answer in the internet. This way candidate may cheat the examiner in the online exam. So this system can propose the technique for restrict the students to cheat the online exam. To remove the requirement for human intervention in secure online exam management so as to capitalize on the advantages of online processes, this system proposes a solution to the issue of security and cheating for online exams. This system can use the security control system technique. This method can monitor the examinees during the exam. This solution uses an enhanced Security Control system in the Online Exam (SeCOnE) which is based on group cryptography with an e-monitoring scheme. The cryptography supports enhanced security control for the online exam process, as well as authentication and integrity.The e-monitoring provides a proctor function to remote examinees to prevent cheating, and thus removes the requirement of having to go to a fixed location. The target of this paper is online exams for mathematics or English contests in middle or high school, and exams in online university courses with students at remote locations.

Related Work:

One proposal for secure online exams was based on a secure exam protocol with central manager who controlled all the information for students, teachers, problem
sheets, answer sheets, and grades. The weakness of this system was that the manager was assumed to be absolutely honest. Moreover,
a restricted room was required for the exam, to prevent cheating. Thus, the proposed exam scheme did not share the advantages of online education.

The security problems related to online exams include not only unauthorized access to the problem sheets before the exams, but also modification of the questions, the answers, and the grades. Different cheating patterns exists in current system including copying the answers of others, exchanging answers, searching the Internet for answers, using the data and software saved on the student's local computer and discussing the exam by e-mail, external storage devices.

Existing System:

Different cheating patterns exists in current system including copying the answers of others, exchanging answers, searching the Internet for answers, using the data and software saved on the student's local computer and discussing the exam by e-mail, external storage devices.

Proposed System:

This project proposes a solution to the issue of security and cheating for online exams. This solution uses an enhanced Security Control system in the Online Exam (SeCOnE) which is based on e-monitoring scheme. The e-monitoring provides a proctor function to remote examinees to prevent cheating, and thus removes the requirement of having to go to a fixed location. The target of this project is online exams of any type and exams in online university courses with students at remote locations.

Project proposes administering an online exam at a fixed time with the same questions for all examinees, just like an off-line exam, but without restricting the physical location of the examinees. As the SeCOnE system enables many kinds of tests to be given online, it can provide teachers with better evaluation standards for students and may contribute to improving the quality of education.

Requirments For a Secure Online Exam

Accessibility:

Online exams should be possible without regard to location and time.

Monitoring:

The absence of proctoring on online exams may relax the examinees and encourage cheating. Therefore, it is necessary for an online exam management system to have some monitoring method to prevent
and to detect cheating.

Authenticity:

The identities of the examinee, examiner, marker, and proctor should be all authenticated and verified at every step in the online exam process, because it is difficult to identify them "face-to-face" online.

Secrecy:

The problem sets should be available to the examinees only during the exam period. The answer sheets should be kept securely before grading.

Copy Prevention and Detection:

Types of cheating discussed in this paper are getting help from others, or helping an examinee with the exam, discussing the exam with others, surfing answers from browser, getting answers from local hard disks.

Security Control in the SECONE system:

1. Architecture:

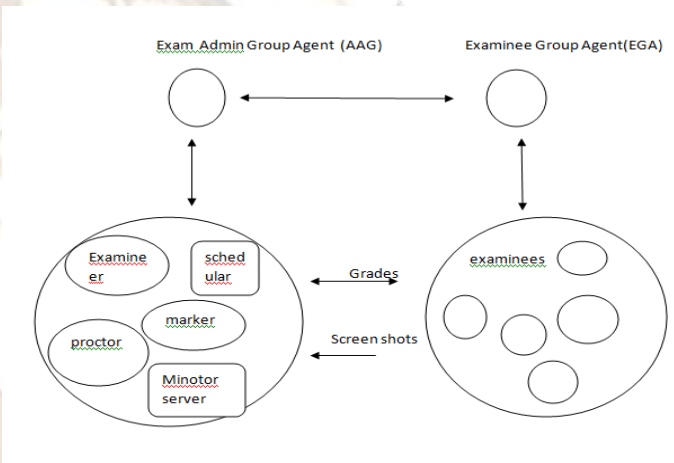

Fig 1.1 The system architecture of SeCOnE.

A proctor monitors the examinees through using the monitor data in monitor server. The
Group Agents (AAG) and (Ega) creates a set of public and private key for each group. They distribute this set of keys to their group members at each exam, and exchange the public keys with each other. The public key of each group is used for secure intergroup communications. For secure communications among group members, they use the symmetric keys created by the Diffie-Hellman key exchange.

2. Client Server Architecture:

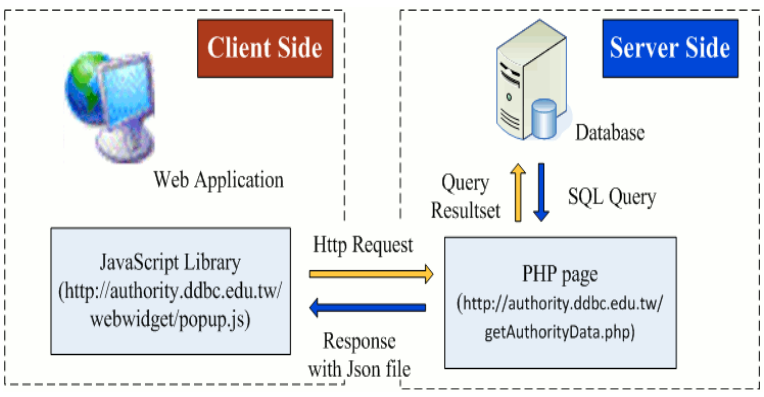

Fig 2.1 Client Server Architecture

Examinee Group Agent (AGA):

This Agent prepares two set of public and private keys and it also issues one-time Identities for the members of Examinee Group after the authentication of the examinees.

Exam Admin Group Agent(AAG):

This Agmin Group Agent also Creates a Two set of Keys and it also issues one-time Identities for its Group Members after Authenticating them. It also send the identity of the Examinee to Schedular. Through the identities, the IP s for the examinees and the public key of the group, AGA and AAG check the integrity of the data that the members of Exam Admin Group and Examinee Group Sent and Receive each other..

Results and Discussion:

CANDIDATE:

- Authorized candidate can login into this page.
- New candidate can register their details here.
- User wants to register for the online exam.

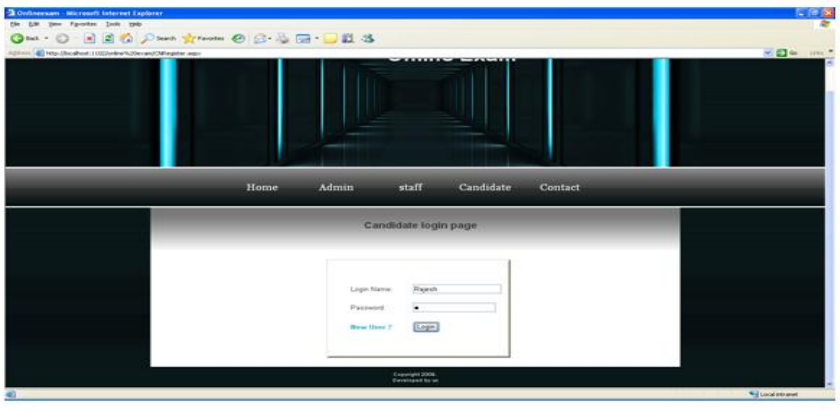

Fig 3.1 : Authorized candidate can login into this page

STAFF:

- It can allow the authorized persons enter into this page.
- If new staff they want to register their details here.
- They can schedule the exam for the student.
- They have to upload the questions and answer into this.

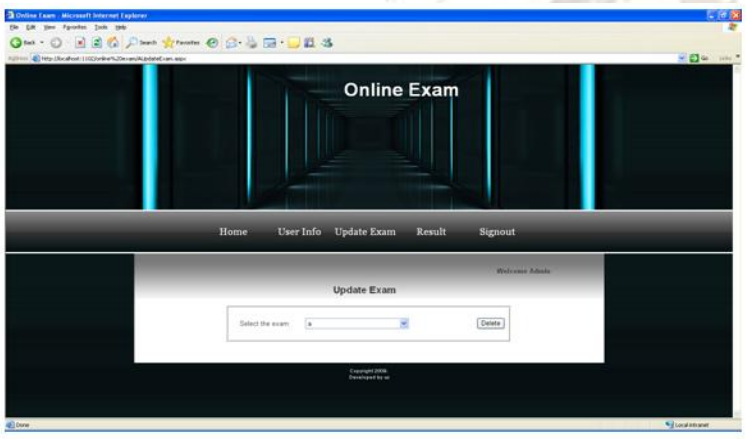

Fig 3.2 : Staff access

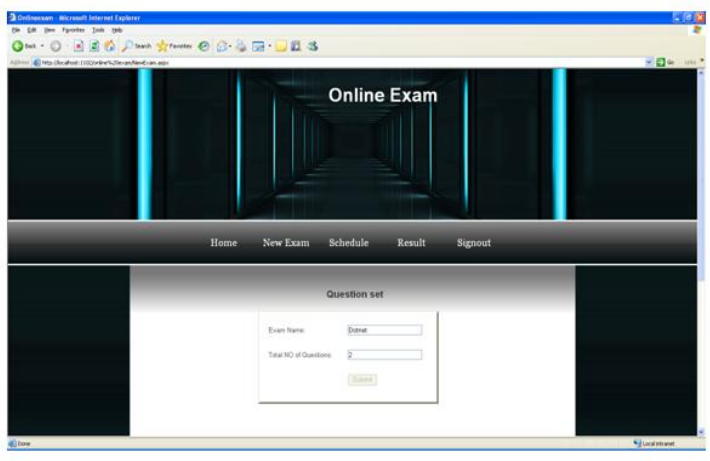

Fig 3.3 : Uploading options

CONCLUSION:

This system can secure online exam management, scheme for the prevention and detection of cheating using e-monitoring. This method can be achieved by using the SeCOnE System. This system can identify who they tried to find the answer from the internet or local system data. This system can't restrict the exam time and the exam location. It can allow the candidate to attend the exam whenever they have a time. The examiner no need to monitor the exam's for the cheating, the system can monitor that who they attempt to cheat. A powerful feature is that SeCOnE can be applied to an exam administered at different times.

FUTURE ENHANCEMENT:

Presently the user can be monitored and triggered to stop accessing the local resources and other process of the system. Further this project can be enhanced to protect the users from messaging and chat applications so that the examination can be conducted strictly.

REFERENCES:

C.-R. Jordi, H.-J. Jordi, and D.-J. Aleix, "A secure E-exam management system," in Proc. 1st Int. Conf. Avilabil., Reliab. Security, 2006.

- N. Rowe, "Cheating in online student assessment: beyond plagiarism," The Online J. Distance Learn. Administrator, 2004.
- C. C. Ko and C. D. Cheng, "Secure Internet examination system based on video monitoring," Internet Res.: Electron. Netw. Appl. Policy.
- D. L. McCabe, L. K. Trevino, and K. D. Butterfield, "Cheating in academic institutions: A decade of research," Ethics Behav., 2001.
- A. Shafarenko and D. Barsky, "A secure examination system with multi-node input on the world-wide Web," in Proc. Int. Workshop on Adv. Learn. Technol., 2000.