Centralized Secured Server for Question Banking and Printing using Stegnography

Prem Thavare ,Aditya Jawatkar ,Siddharth Shete ,Nikhil Dhemre
Department of Computer Technology, Rajiv Gandhi College of Engineering and Research ,Nagpur
premthavare@gmail.com

***Abstract*— In the changing present competitive scenario, Intelligent development of question model and distribution of question papers is indispensible for overall growth. Although there are several computer based question paper generators and distribution techniques but they typically use random selection from question bank. Also these databases (question bank) are not rich enough to avoid recalling (repetition of questions). Moreover, History is also not maintained for the previous question module generated. Such systems lack intelligence as they do not use concepts maps and are unable to provide quality questions with variations. In this project, we are designing an adaptive question bank management system that is intelligently storing questions paper in rich database (question bank) and giving these question papers according to the inputs or parameters provided by the question paper user to print them. This question banking and printing uses concept of image stegnography. The concept image stegnography integrated with question banking (question database) and printing will ensure the question papers to be encoded before it is stored in database and decoded before giving them for printing. The question banking of generated question papers will provide a easier way to protect them from being leaked and physically damaged, this will be advantageous for the colleges also as it will reduce their time of transportation. In sum, our proposed system would be great aid for the organization in effective question banking and its retrieval and distribution**

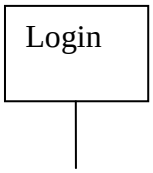
AIM AND OBJECTIVE

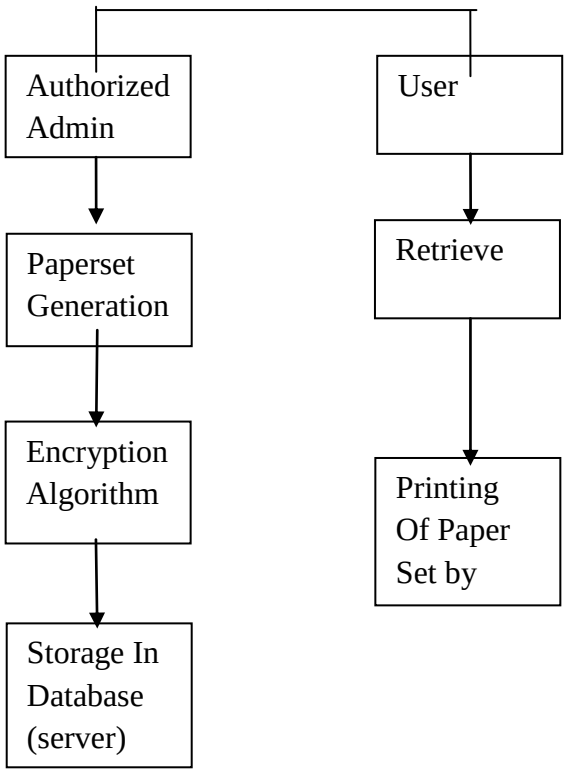
In present scenario, there is need to develop a robust and secure method to securely pass the question papers to various branches conducting exams and to store them which cannot be easily disclose during or before exams. In this project Question papers generated will be kept secure by storing it on secure server; we are providing security by giving authentication to administrator. Our main objective is to make a secure question paper, to secure question paper so that it cannot be misused by unauthorized person,to store all question in English and Hindi.The questions will be stored on the basis of unit or chapter wise. It will show questions year wise too. Generating question: In this module we can make new paper and select questions from question module

EXISTING METHODOLOGY

Generation of question papers through a question bank is an important activity in learning management systems and educational institutions. The quality of question paper is based on various design constraints such as whether a question paper assesses different problem solving skills as per Bloom's taxonomy, whether it covers all units from the syllabus of a course and whether it covers various difficulty levels. In this paper, we present the design of an algorithm to generate question paper template which satisfies the above mentioned constraints. The algorithm is illustrated in the paper by using four constraints namely question paper format, coverage of syllabus, coverage of difficulty levels and coverage of cognitive levels. The algorithm presented is extensible to support any number of user defined constraints. With various kinds of intelligent metering equipment coming into service, there has been an urgent need for a set of examination system in the electric power industry to check the staff's level of measuring electric energy. In this paper, we design and implement a random test paper generation algorithm for this examination system, and analyze the experiment's data, based on the practical requirement of a training system for the electric energy measurement in a certain electric company. At the same time, in order to get a set of test papers to satisfy the given conditions, this paper discusses how to use optimized genetic algorithm to generate test papers from the question bank. This paper introduce fishnet algorithm to generate test papers automatically for getting a better, more fair and more objective test paper.

PROPOSED ARCHITECTURE





EXPECTED OUTPUT AND FUTURE WORK

This project will deliver question papers online to all its affiliated branches and will also reduce the chances of being leaked, late distribution of question papers through traditional transportation.

From this project, technology would go beyond digital evaluation with the implementation of the CENTRALIZED SECURED SERVER FOR QUESTION BANKING AND PRINTING replacing the physical distribution of papers to the affiliated colleges.

CENTRALIZED SECURED SERVER FOR QUESTION BANKING AND PRINTING aims to increase transparency and prevent question paper leakage by eliminating two steps which have been associated with malpractices — transport of the question papers and their storage in store rooms manned by officials.

In future government can make it compulsory for all universities to adopt this technology and put some more security features like more strict authorization process, creating and passing of secret key at the time of each login required by user.

CONCLUSIONS

The data is encrypted with key and embedded with an Image which is ready to send through communication channels. It is going to be reliable and secure. At the receiving end, the tool checks the availability of data and authenticates the data. It retrieves data from the stego image and decrypts it. This package contains two sessions. The first sessions deals with Embedding, Retrieving and Authentication of data. The second sessions provide the utilities for encryption and decryption of data.

REFERENCES

[1] <Ravi Kumar. B#1, Murti. P.R.K.*2>,<"*Data Security and Authentication Using Steganography*">,<(JCSIT) International Journal of Computer Science and Information Technologies, Vol. 2 (4) >,<2011>

[2] <Shamim Ahmed Laskar and KattamanchiHemachandran>,<"*Secure Data Transmisionusing SteganographyandEncrption Technique*">,< International Journal on Cryptography and Information Security (IJCIS),Vol.2, No.3>,< September 2012>

[3] <R. J. Anderson, and M. G. Kuhn>,<"*F. A. P. Petitcolas*">,< Proceedings of the IEEE, special issue on protection of multimedia content, 87(7):1062-1078>,<July 1999>

[4] Paul, D. V.; Naik, S. B.; Rane, P.; Pawar, J. D., "*Use of an Evolutionary Approach for Question Paper Template Generation*," Technology for Education (T4E), 2012 IEEE Fourth International Conference, vol., no., pp. 144,148, 18-20 July 2012. doi: 10. 1I09rr4E. 2012. 24 Abstract | Full Text: PDF (376KB) | Full Text: HTML

[5] Wang Aimin; Wang Jipeng, "*Design and Implementation of Web-Based Intelligent Examination System*," Software Engineering, 2009. WCSE '09. WRl World Congress on, vol. 3, no., pp. 195,199, 19-21 May 2009. doi: 10. 11 09/WCSE. 2009. 77 Abstract | Full Text: PDF (493KB) | Full Text: HTML

[6] Mohd J.; Abu BakarMd Sultan; "*Shuffiing Algorithms for Automatic Generator Question Paper System*," in Computer and Information Science, vol. 3, no. 2, pp. 244,251, 2010.

[7] Wei Huang; Zhao-hui Wang, "*Design of Examination Paper Generating System from Item Bank by Using Genetic Algorithm*," Computer Science and Software Engineering, 2008 International Conference on , vol. 5, no., pp. I323,I325, 12-14 Dec. 2008. doi: 10. 1 109/CSSE. 2008. 47 Abstract | Full Text: PDF (274KB) | Full Text: HTML

[8] Purohit, V. K.; Kumar, A.; Jabeen, A.; Srivastava, S.; Goudar, R. H.; Shivanagowda; Rao, S., "*Design of adaptive question bank development and management system*," Parallel Distributed and Grid Computing (pDGC), 2012 2nd IEEE International Conference on, vol., no., pp. 256,261, 6-8 Dec. 2012. Doi: 10. 109/PDGC. 202. 6449828 Abstract | Full Text: PDF (1390KB)