AN EFFICIENT AND SECURED AUTOMATIC QUESTION FRAMER FOR AUTONOMOUS INSTITUTIONS

Author
Dr. M. VARGHEESE, M.Tech., PhD
Professor and Head, Department of computer science
PSN College of Engineering and Technology
Affiliated to Anna University

Co Author
G. VINAYAGAMOORTHI

Abstract: Student assessment is a crucial part of teaching and is done through the process of examinations and preparation of exam question papers has consistently been a matter of interest. Present-day technologies assist the teacher to stock the questions in a computer database, but the problem which emerges is how the present day technologies would also assist teachers to automatically create the variety sets of questions from every now and then without worry about replication and duplication from the previous exam while the question bank keeps growing, so a non-automatic path for conniving a exam paper would not be able to serve to this need so in this paper we introduce an automated way which would permit the operation of conniving exam paper to be further well organized and productive and it would also aid in developing a database of questions. The main scope of the project is to develop a design of suitable automated system for generating question papers and managing related data which may prove vital in an Educational Institute. In this project, we have proposed an integrated automated system that stores questions related to a particular course and prints a question paper based on its syllabus and curriculum. We have implemented a role-based hierarchy which restricts access to the users. The system also deploys security mechanisms that prohibit duplication of question papers. There are provisions to enter and edit data suitable to any educational organization with complete freedom for specifying courses, semesters, syllabus and pattern autonomous institutes. The endeavor needed for generating question paper is diminished after the implementation of this advanced system and because of this advanced system there is no obligation for humans to ponder and employ time which can be utilized on some additional important duty instead of designing question paper.

Keywords: Automatic Question Generation, Randomized Algorithm

Introduction: Assessment is a continuous systematic process that inferences about learning and development of students. It is a process of defining, selecting, designing, collecting, analyzing, interpreting and using information to increase students’ learning and development. One of the
assessment methods is examination or test that aims to measure the students’ knowledge based on the LO. Examinations have been chosen as assessment methods to assess student learning by the end of the course. Moreover, examinations are crucial for the academic teacher and learning process as well as to the school or university’s administration procedures. It can be seen from the school or university’s perspective that examination aims is to gauge their students’ ability and competitiveness. On the other hand, for the students, the examinations give those goals and pushing them to attain that goal in the specific time. As for the teacher or university lecturer, the examinations results provide them the learning outcome curves that allow them for improvement in the future towards better learning process.

The main scope of the project is to develop a design of a suitable automated system for generating question papers and managing related data that may prove vital in an Educational Institute. In this project, we have proposed an integrated automated system that stores questions related to a particular course and prints a question paper based on its syllabus and curriculum. We have implemented a role-based hierarchy which restricts access to the users. The system also deploys security mechanisms that prohibit duplication of question papers. There are provisions to enter and edit data suitable to any educational organization with complete freedom for specifying courses, semesters, syllabus and pattern.

**Work:** In the existing system, a manual generation of the question paper generative system by the staff is done where a paper work accessing system will be used out. The delivery will be done with a identification of the existing entities where the staff need to suffer a lot in the existing system. Thus the proposed system is to give out a exact solution over generation of the question paper with selected question pattern with PDF based generative system. The developed website application will make out staffs to get a clear processing system for the question paper generation.

**Conclusion:** The system shows out an efficient planning for the question paper generation system. The system makes a good user interface for the staff to access out the question paper framer system. The implementation will makes efficient planning for the staff based question pattern working system and developmental.

**System Design:**

![Figure 1: Working Model](image_url)

**MODULES:**

**Admin Access**

Description: The admin will be provided with a separate access system. The admin will use a username and password for the access. The admin login will be done here.

**Staff Access**

Description: The staff will be provided with a separate access system by admin. The staff will use a username and password for the access. The staff login will be done here.
Add Question

Description: The admin & the staff will add the question details in which the admin will verify the process. The details of the questions, options and the answer will get stored. The question will be stored in the server side.

Question Paper Setter

Description: The details of the question with complete information will be added and set. The complete details of the question will be added. The question added will be in the server database.

Question Paper

Description: The developed question will be set in the server and extracted as question paper. The admin or the staff will add the question system and it will be shown in the question paper generation. The question added will be in the server database.

The staff login will be done here.

Add Question

Description: The admin & the staff will add the question details in which the admin will verify the process. The details of the questions, options and the answer will get stored. The question will be stored in the server side.

Question Paper Setter

Description: The details of the question with complete information will be added and set. The complete details of the question will be added. The question added will be in the server database.

Question Paper
CONCLUSION:
The introduction of an Automatic Question Paper Generator System addresses the pressing need for streamlining the process of exam paper creation in educational institutions. Traditional methods of manually designing question papers are not sufficient to keep pace with the growing question bank and the need for variety in exam sets. This paper proposes a modern evolutionary approach that leverages technology to efficiently manage multi-constraints while generating question papers.

By implementing a randomization algorithm, this system enables the automatic creation of diverse question sets, alleviating the burden on teachers and administrators. The system's ability to swiftly generate exam papers from a vast question bank enhances productivity and organization within autonomous institutes. Moreover, it facilitates the development of a comprehensive database of questions, which can be categorized and utilized for future exam paper composition.

In conclusion, the adoption of this Automatic Question Paper Generator System represents a significant advancement in educational assessment practices. It not only optimizes the efficiency of exam paper creation but also allows educators to allocate their time and resources more effectively, thereby enhancing overall productivity and quality in academic settings.

FUTURE SCOPE:
In the future enhancement, the security system over a web based server system can be added. Since the student or other person can get the server and download the generated questions.

REFERENCES:
Book reference:

Web reference: