

AUTOMATIC RANDOM QUESTION PAPER GENERATION

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Abstract: Examinations plays a vital role in educational institutions to assess the students and based on their performance further decisions are devised to promote their advancements. Various design measures should be taken in to consideration to assess the quality of the question paper. Some of the constraints that should be taken with utmost care are whether a question paper assess the student's capability of solving the problem in different cognitive levels defined according to Blooms Taxonomy, whether a question paper covers all the units given in the syllabus and equal weightage is given to all the units in the syllabus, Whether a question paper addresses various difficult levels. Designing the question paper is a time consuming and tedious task for the instructors. To solve the above difficulties, Automatic Random Question Paper can be generated by considering the measures and all design criteria's. The generated question paper will be stored in the word file.

Keywords: Question paper generation, randomization, question paper format, examinations.

I.Introduction

In this modern era, it's a great difficulty for the instructors to create question papers for various examinations conducted in a year. There may be online quizzes, assignment questions exams, mock exams, slip tests, unit exams, sessional exams, final exams and so on. Automatic Question paper generator system stores questions for a particular academic course and generates the questions according to the prescribed format by covering the syllabus and curriculum. It is difficult for the instructor to cover all the course outcomes and avoid duplication of questions in the succeeding exams. There is no prescribed procedure to develop the question paper. So if we consider the quality of the question paper as a major factor, then it relies on the instructors proficiency on that subject and the experience in the academic field. Generating question paper automatically yields a well-organized examination paper. Automation of question paper would smooth out the difficulties faced by the instructor in setting the question paper and incorporate elements as needed when the regulations or the format of exam changes in time subsequently. Every user can register their details and can login with their user id and get authenticated first. Thus, deploying security mechanisms and this also prohibit duplication of questions. The main aim of the system is to provide fast operations, data storage and high security for all the tasks.

II. Methodology

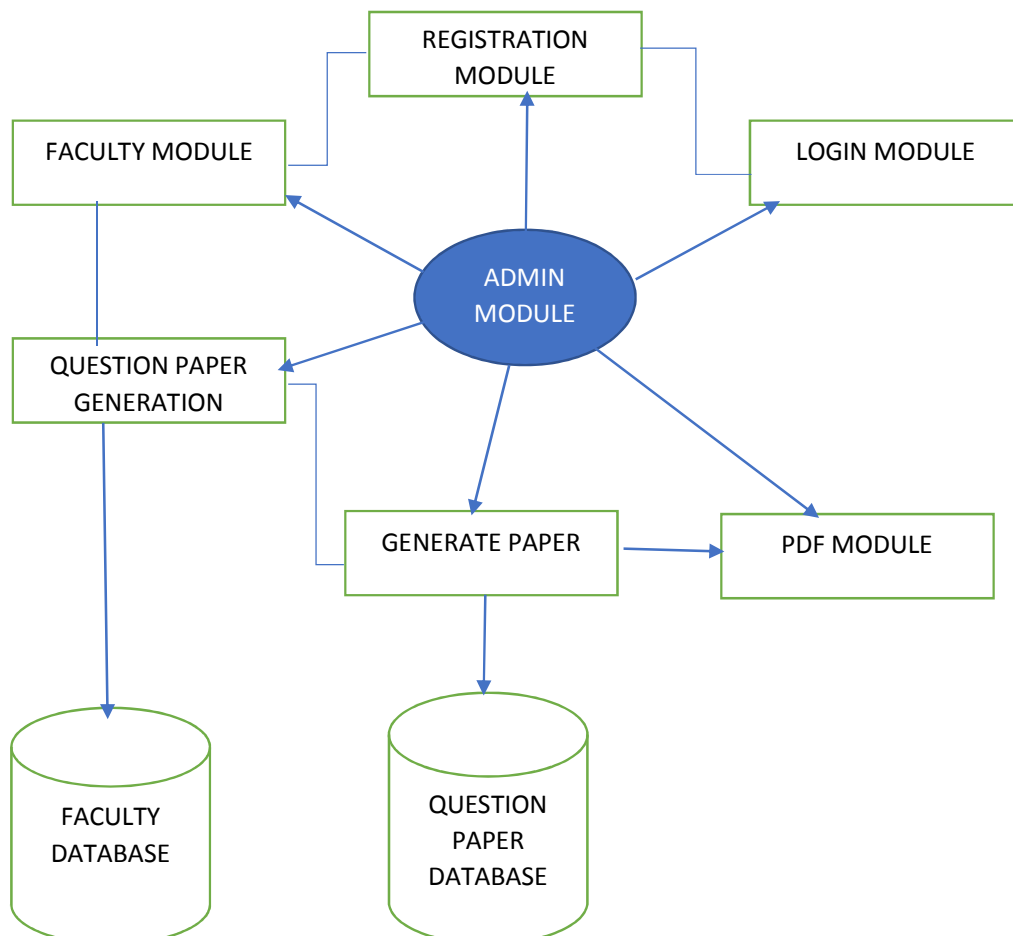
Automatic Random Question Paper Generation System (ARQPGS) has 6 modules.

- **Registration Module:** In this module, the user has to register the credentials that has to be done before logging in to the system.

- Login Module: The login module is divided in two parts Administrator Login and Faculty Login.
 - Administrator Login: In this, the administrator is provided with the credentials i.e. Username and password. After logging-in in to the system by entering the correct credentials, the admin can access the system and has the full authority of the system.
 - Faculty Login: In this, the faculty enters the credentials i.e. Username and password to get access to the system.
- Admin Module: The administrator can add or delete the faculty members.
- Faculty Module: The faculty can insert, delete or update as many questions as he needs according to the syllabus requirement. The faculty will load the question bank in to the system and decide, assign the difficulty levels to each and every questions i.e. Easy, Medium, Hard.
- Question-Paper Generation Module: The question paper will be generated automatically with the help of randomization algorithm.
- PDF Module: The generated question paper will then be converted into pdf format before the exam.

III. Architecture

The Proposed work will reduce the cost of the project, remove the use of costlier software and increases the efficiency. The problems of manually generating a question paper will be resolved and eliminates the risks faced by the instructor in terms of quality and level of difficulty that can be considered based on the students learning styles. Earlier the questions were generated based on the shuffling procedure, but here randomization algorithm is used which increases the performance and effectiveness of the system. The below figure shows the process flow with in the modules.



IV. Expected Result

Automatic generation of question paper has been achieved with the help of randomization procedure. Automatic Random Question Paper Generation System has deployed an efficient algorithm which is totally randomized and avoids duplications of questions in same or subsequent question papers. The administrator will have the entire control over the software i.e. administrator will be able to manage the faculty details, questions to be loaded into the database and generating the question paper. The faculty module is for the adding and updating the questions which is done under the supervision of the administrator. The final question paper is generated in word format which will then be converted in to pdf format. The question paper generated will be submitted in person or emailed to the controller of examinations of the institute. The automatic question paper generation system affords enhancement in terms of controlled access to the several resources, random generation of question paper and a protected platform for which each question paper has been generated uniquely within few seconds and evading of paper leakage.

V. Conclusion

In teaching learning process, assessment is the important aspect that has the major impact on student's community. The major task of aligning the assessment to the course outcomes of a particular course is also most important. Our system aims to generate automatic random question paper by satisfying all the design criteria's and the randomization algorithm avoids duplication of the questions. Here we use crystal reports so that the question paper is in regular format. The generated question paper will be converted into the pdf format and then sent to the respected institute.

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