

REVIEW ON AUTOMATIC QUESTION PAPER GENERATOR

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Abstract – An Automatic Question Paper Generator will permit officials to consequently produce papers from a current database of questionnaires. This framework will handle diverse paper sets as a matter of course. It takes all the monotonous work and makes the manual work speedy and compelling. The software is valuable for little and medium sized establishments. It will utilize the database to compile a questionnaire where the database has thousands of queries. This paper aims to do research and evaluate the various methods used to generate the question paper. This paper further focuses on the algorithms, working modules of the system and databases.

Key Words: Question, paper, questionnaire, generator, automatic.

1. INTRODUCTION

In a practical scenario, generating a paper is extremely time consuming and it makes all the teachers do an equivalent task over and over again. This project removes these issues and difficulties. During this project, a proposed system in which random questions are going to be selected from the database to get the question paper.

Using a randomization algorithm, the questions are selected from various constraints such as marks, subject, semester, course. This produces a big questionnaire to avoid time consumption and also avoids the repetition of the questions in the question paper.

2. LITERATURE SURVEY

2.1: Android Based Exam Paper Generator-

Mrunal Fatangare, Rushikesh Pangare, Shreyas Dorle, Uday Biradar, and Kaustubh Kale [1] have suggested a solution to choose challenging, well framed questions and make it easy for the instructor to generate them within a short period of time. This can be wiped out of a couple of taps of the hand because it is an Android application, therefore accessible at any time and place.

It contains various modules which enable the system to affect all questions easily. The module like admin module, user module, and question entry and question management makes it an easy task. Their proposed system uses randomization algorithm which includes Bloom's Taxonomy levels.

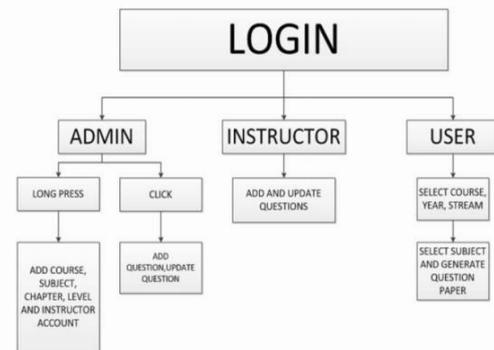


Fig -1: All Modules Process

Admin Module is managed by a senior staff who is responsible for managing questions, adding new subjects, and courses. In the instructor module, the instructor is responsible for managing the questions and chapters of the respective subjects. The user module is handled mainly by the student who will choose specifics from the given form, which will result in generating a random question paper.

2.2: Automatic Question Paper Generator-

Amit Khairnar, Bhagwat Jadhav, Rahul Birhade, Pramod Patil [2] they proposed a system that enables college authorities to automatically generate question papers out of existing question bank in the database. The system will have the capability to process different unique sets of papers automatically. It takes over the entire tedious task and does the manual work swiftly and efficiently.

Software is extremely useful for little, medium, and enormous scale institutes. The software will produce a random question paper set so the question don't repeat itself within the same paper. The software mainly deals with the gathering, sorting, and administration of an outsized amount of questions on a different level of toughness from scientific also non-scientific subjects related to various classes. This system introduces the usage of shuffling algorithm in Automatic Question Paper Generator System to overcome the mentioned problem. The main part of the shuffling algorithm is to provide a randomization technique in the question paper generation system, thus different sets of questions can be generated without repetition and duplication.

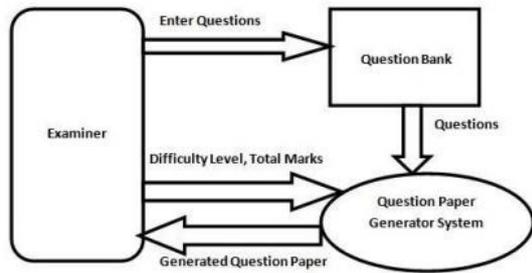


Fig -2: Working of the system

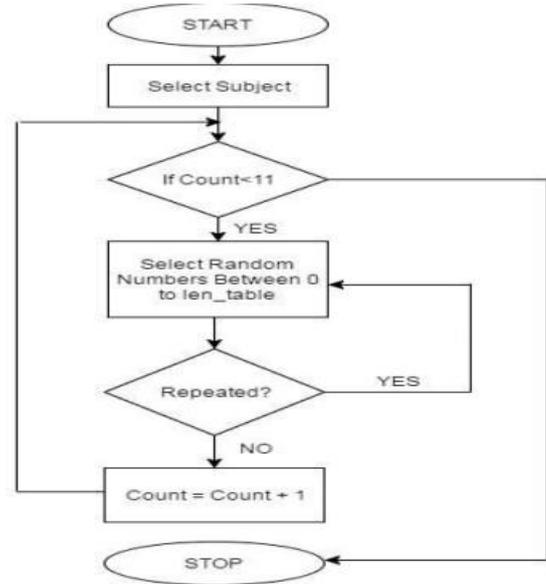


Fig -3: Question Paper Generation

2.3: Shuffling Algorithm-

Mihir Joisher, Swapnil Ghagare, Mittal Patel, Ritesh Rathi [3] presented the shuffling algorithm which is applied to randomize the questions generated from the database. The algorithm applied by them is quite straightforward and also extremely easy to understand. The implementation of this algorithm can be easily performed in other systems as well. This system is mainly used in colleges, institutions, to produce and test the paper setters who mainly want to have a huge record of questions in the question paper. Classification and organization of huge quantity of queries about unlike levels of toughness from methodical as well as non-scientific subjects related to several classes. This system mainly presents the practices of procedures in Randomized Generated Question Paper System to overcome the above mentioned problem. The main part of the procedures is to deliver a random method in the group of systems, thus different sets of questions could be mainly generated without replication and duplication.

2.4: Question Paper Generator

Prateek Pisat, Devansh Modi, Shrimangal Rewagad, Ganesh Sawant [4] have proposed a system that focuses on the development of detailed and analytical question paper with stats. The algorithm applied is much complex as the questions are meant to be comprehensive and are inclined towards systematic and logical thinking. There are basically two modules in the system.

The first module is the question generation module in which the admin, or any person who wants to generate an assignment for the students to solve, has to enter the appropriate parameters, and the system will automatically develop an assignment. When the students log into the system, the assignment will be available for the students to solve. The parameters provided to the person generating the assignment include the topic and therefore the level of difficulty for the questions to be selected. In view of the parameters selected by the student the system will structure a dataset containing every one of the questions to satisfy all the constraints and five questions are going to be randomly selected and added to the assignment. The second module is the answer evaluation module in which once the student has completed solving all the questions and has submitted the assignment. The score will be instantly calculated and will be displayed to the students, at the same time it will be updated in the college database.

2.5: Design of Adaptive Question Bank Development and Management System-

Vijay Purohit, Abhijeet Kumar, Asma Jabeen, Saurabh Srivastava, R H Goudar [5] who proposed a system that is based on Bloom’s Taxonomy. It is an adaptive system however the data entered is assumed to be completely error-free which can affect the overall accuracy of the system. The objective of this software for a colleges and institutions is to exploit the potential of expertise around the world in collecting questions and effectively managing the collected questions. Then inculcate the system with intelligence to generate the question papers as per the requirement (Marks, Skills, Difficulty Level, Syllabus, Type, Test) of the course teachers of the institutions for particular courses.

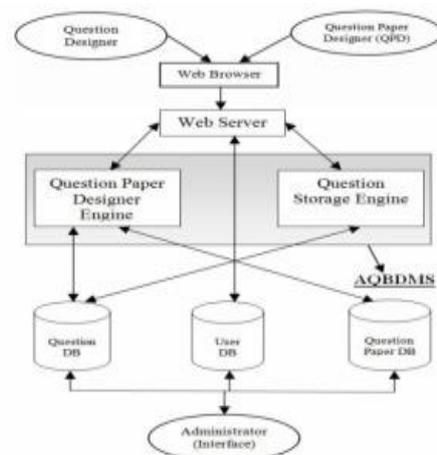


Fig -4: System Architecture

3. ADVANTAGES AND LIMITATIONS

Advantages:

- The system isn't time consuming. It will reduce the time consumption done for teachers/faculties for making question paper.
- Wide portion can be covered and efficient in making random question papers.
- No chance of paper leakage.
- System will provide accurate and unbiased result.

Limitations:

- Development cost is more.
- If proper input is not provided then the system could produce wrong results.
- Lack of storage.

4. APPLICATIONS

- Institute level examinations.
- Practice paper for students.
- Board Examinations such as SSC, HSC, CBSC.
- University Examinations.

5. FUTURE SCOPE

1. The Android Based Exam Paper Generator approach [1] can be developed for board level examinations, institutional level examinations and with a proper database it will be able to provide much more accurate results.
2. In Automatic Question Paper Generator [2], the system currently consists of limited modules, and new modules can be added to make the system much simpler and provide much more functionality.
3. Design of Adaptive Question Bank Development and Management System [5] is a web-based question paper generator software. It can be developed into a flexible system which can manage various domains for paper generation. An Evaluation system can also be implemented which will evaluate the paper after the students have given the exams and provide the grades to the instructor/teacher.
4. The Question Paper Generator [4] in which an additional module could be added that would accept the answers from an image source, by using an image to text conversion algorithms, so the papers can be scanned and corrected.

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REFERENCES

- [1] Mrunal Fatangare, Rushikesh Pangare, Shreyas Dorle, Uday Biradar, Kaustubh Kale, "Android Based Exam Paper Generator" Proceeding of the Second International Conference on Inventive Systems and Control (ICISC 2018).
- [2] Amit Khairnar, Bhagwat Jadhav, Rahul Bihade, Pramod Patil, "Automatic Question Paper Generator" 6th International Conference on Recent Trends in Engineering & Technology (ICRTET - 2018).
- [3] Mihir Joisher, Swapnil Ghagare, Mittal Patel, and Ritesh Rathi, "Automatic Question Paper Generation System" International Journal of Advanced Research in computer and communication Engineering (IJARCCE), vol.4 Dec 2015.
- [4] Prateek Pisat, Devansh Modi, Shrimangal Rewagad, Ganesh Sawant, "Question Paper Generator" International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS-2017).
- [5] Vijay Krishnan Purohit, Abhijeet Kumar, Asma Jabeen, Saurabh Srivastava, R H Goudar, Shiwangowda, "Design of Adaptive Question Bank Development and Management System", 2nd IEEE International Conference on Parallel, Distributed and Grid Computing, 2012.