

Automatic Question Paper And Timetable Generator

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Abstract : Information and intelligence are two vital columns on which development of humankind rise and knowledge has significant impact on operating of society. 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 databases but the problem which emerges is how the present day technologies would also assist the 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 which could be further classified for blending of exam question paper, currently there is no systematic procedure to fortify quality of exam question paper. Hence there appears a requirement to have a system which will automatically create the question paper and timetable from teacher entered description within few seconds. In this project we have implemented a modern evolutionary path that is able to manage multi-constraints issue along with creating question papers as well as timetable in autonomous institutes from a very vast database. The endeavor needed for generating question paper and timetable 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 it manually.

IndexTerms - : Automation, Timetable Generation, Question Paper Generation.

I. INTRODUCTION

In today's world, time is a major concern. Any product that can effectively reduce time and power consumption is accepted and appreciated. The significance of the project is to Automate the management process of the Timetable and Question paper. Thus we are presenting an Automated Question Paper and Timetable Generator System that can reduce time consumption by replacing the conventional method of question paper generation system and also prevents the overlapping of lectures or any other schedule and there is no worry of checking the availability of faculty time to time using time table generation system. It also needs lesser man power. 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. This enables an educational institute to generate question ensuring security and non-repetitiveness of question papers and is a boon for organizations with limited staff and resources. Our system aims to provide fast operations, data storage and high security for all its tasks. The Question Paper Generator system automatically generates paper, prepares doc file as per selected paper format it also generates the timetable as per the selected schedule for regular lectures examination and so on.

Examinations predominantly use question papers as a vital constituent to discover the caliber of students. A good exam gives all students an equal opportunity to fully demonstrate their learning. The National Board of Accreditation, India states that Autonomous institutes should encourage the standard of teaching, self-analysis and responsibility in higher education and promote the Institutions in perceive their educational aim, embrace education exercises that accredit them to yield appreciative quality professionals and to aid them in ceaselessly bestowing to the area of education through transformation & research. Assessment is one or more activity that recognizes, gather, and construct data to assess the fulfilment of Course outcome and program Outcomes. Automatic Question paper generator system considers question paper creation as its fundamental activity, and the caliber of questions is the key in enhancing examination standard, which depend on intelligent and random choice of a set of questions. . Even though most college administrative work has been computerized, the lecture timetable scheduling is still mostly done manually due to its inherent difficulties. The manual lecture- timetable scheduling demands considerable time and efforts along with the lots of paper work. By automating this process with computer assisted timetable generator can save a lot of precious time of administrators who are involved in creating and managing course timetables.

II. PROBLEM STATEMENT

To collectively store data of question with answer set, and generate an automated question paper as per the selection criteria through various parameters like departments, subjects or a type of question papers, etc. Planning timetable is one of the most complex and error prone application. There are still many serious problems like generation of high cost timetable are occurring while scheduling and this problems are repeating frequently. In the manual lecture timetabling, one of the major problem is dealing with clashes and finding clash free slots. To overcome this problem the university system needs an automated timetable generator.

III.LITERATURE REVIEW

Fenil Kiran Gangar, Hital Gopal Gori,, Ashwini Dalvi “Automatic Question Paper Generator System”, 2017 [1]

In this paper they use randomization algorithm in an Automatic Question paper Generator System which has been implemented specially for autonomous institutes.The resultant automated system will yield the enhancement in random creation of question paper and the secure platform.

Kapil Naik, Shreya's Sule, Shruti Jadhav and Surya Panel.“Automated Question Paper Generation System using Randomization Algorithm”, [2].

With the help of this paper they present the solution in form of Automatic Question Paper Generator System which makes use of shuffling algorithm as a randomization technique.

Mr. Amit Sanjay Khairnar, Mr. Bhagwat Chintaman Jadhav, Mr. Rahul Bihade, Mr. Pramod Patil , “Automatic Question Paper Generator”, 2017 [3]

This paper describes automatic question paper generator using random algorithm for randomization and proposed a system that was an adaptive system but the data entered is assumed to be error free which could affect the overall accuracy of the system.

Gauri Nalawade, Rekha Ramesh “Automatic Generation of Question Paper from User Entered Specifications using a Semantically Tagged Question Repository”, 2016 [4]

The proposed system will automatically generate a question paper from semantically tagged question repository. But it allows user to define only question type. Hence the questions in the repository may have only basic tags or no tags at all. So it becomes overhead for teachers to tag these questions before using them. Properly tagged questions can be efficiently retrieved from repository. Hence it is very much necessary to tag the questions before adding them to repository.

III.PROPOSED PLAN OF WORK

Since the invention of computer, life at the corporate level has been automated through a great extent, but this automation isn't seen much at the institutional level. There is a huge need to automate most of the procedures taking place at university levels to minimize human efforts. The main intention of this proposed system is to automate the overall work for generating a question paper and Timetable, make it a hassle free and an error free process. The entire project is based on Php Programming language. The system includes several modules like Login Module, Faculty Module etc. The Professor needs to specify the department, semester, subject, question, weight age and module number and from the entered input, the examination paper will be generated automatically. The generated question paper is based on the pattern or skeleton of the course. The attributes related to questions are type, marks and complexity. All these attributes are efficiently used during Question Paper Generation The Role Based hierarchy allows the task to be divided among a number of users depending upon their roles. A central administrator will have complete authority over all tasks and users. The interface is provided using PHP and MySQL database is used to store questions and related data. syllabus and pattern of our course is considered for all questions and subsequent generated paper. Also the system is fully customizable according to any educational institute and course schemes. To generate the question paper we can divide the proposed system into phases such as:

1. Selection of Parameters.
2. Question Bank Formation.
3. Final Question Paper Generation.

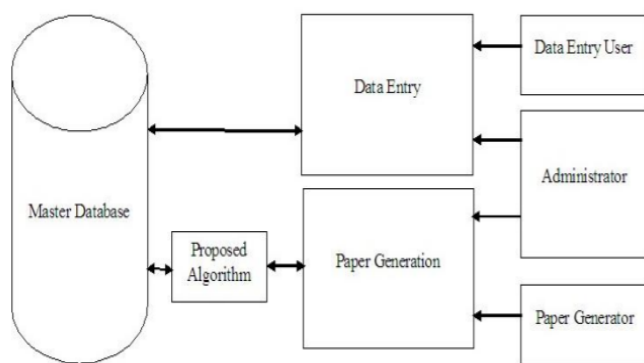


Fig-1 : Architecture of Automated Question Paper Generation System

The timetable includes the module such as login module, staff module. The professor need to specify the semester, subjects, events and from the entered input, timetable will be generated automatically.

This application package can be readily used by non-programming personal avoiding human handled chance of error. This project is used by three types of users

- Admin (Time Table Manager).
- Faculties.
- Students.

The Admin will get a pre-defined timetable view. This view is also available to faculties as well as the students so as to assist them regarding the scheduled lectures.

V. METHODOLOGY

To Automated Question Paper and Timetable Generator System is implemented in PHP. The system contains two modules:

- i) Question Paper Generator and
- ii) Timetable Generator

In the Question Paper Generator, the system contain a huge set of questions related to the subject. The professor login to the system. After login, the professor can create a question paper by selecting the question of his choice of the related subjects. After selecting the questions, the professor would be able to create the question paper. The generated question paper will be in pdf format and can be printed. The professor can add, update or delete the questions from the database.

In the Timetable Generator System, admin have to login first with the valid user id and password which in turn opens the homepage which contains the information about automatic timetable generator system. The system contains three architecture i.e, lecture timetable, sessional timetable and PUT timetable. Each architecture has different connectivity with the database. The main page of the system timetable comes where the admin generates the timetable according to the semester. The professor can edit timetable where the clashes in the timetable can be resolved.

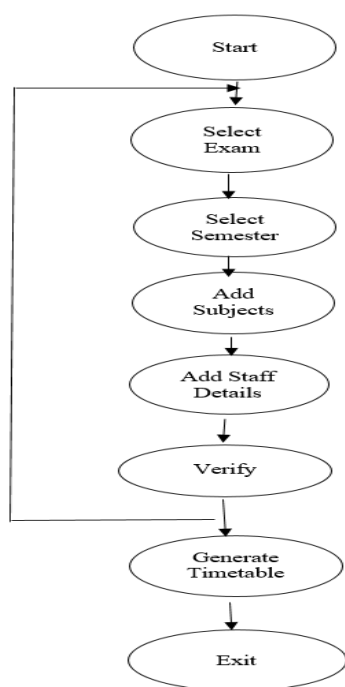


Fig.2: Workflow of Timetable

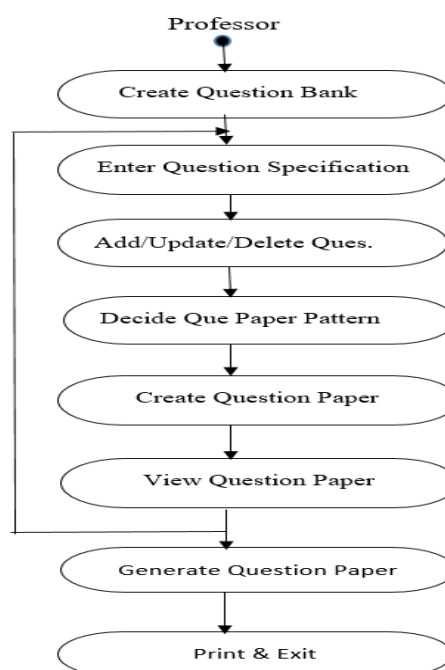


Fig.3: Workflow of Question Paper

VI. CONCLUSION

The main purpose of this application is to describe automatic question paper and timetable and to frequently generate a good question paper as well as timetable which meets learning objectives of the course. Our system is a great aid for teachers in generating question papers automatically from tagged questions repository. The proposed work describes an automated system that progresses from the traditional method of paper and timetable generation to an automated process, by providing controlled access to the resources. We have also considered the importance of randomization in the task of paper generation. Our system has deployed an efficient algorithm which is totally randomized and avoids repetition of questions is consequent question papers, making it impossible to derive any pattern in the papers. We distinguish between administrators and subordinates by their tasks. Therefore, the resultant automated system for Question Paper Generation provides improvement in terms of controlled access to the resources, random generation of question papers and a secure platform. we can also generate separate timetable for the individual class, faculty and labs are generated automatically by this system. Various slot combinations can be acquired so that another timetable is generated as of need. This project is also reduces time consumption. It is developed in such a way that, no slot clashes occur providing features to tailor the timetable of a wish.

VII. ACKNOWLEDGMENT

This project has a large scope as it has the various features which help in making it easy to use, understand and modify it. The system designed by us stands out in all available systems, there is scope for more enhancement to make it more useful. Depending on the type of assessment required, the system can be made to select particular question *types. For example, if user wants assessment for MCQ, Sessional and Pre university test (PUT) the user can select as per Requirement. And time table generator system gives the

real time updates for Admin, faculties and students about the scheduled lectures. faculties will notify about their availability for the scheduled lecture beforehand.

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