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Question Paper Generator System

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ABSTRACT

In this modern world e-book has become a basic requirement for the candidates to appear and prepare for their competitive exams within college premises. In this paper we are proposing a model system for smart question paper generation of universities. The mechanism behind this system is that many random question papers are generated along with the difficulty level of the questions in terms of percentage. After generation that particular question is then mailed to the respective university. In this system administration of the database inputs set of question paper with an option of check box to tick the correct answer. More ever weightage of the particular question in terms of marks and hours and the complexity of the question is determined. After this process whole question paper along with the weightage is stored in the database. In order to make question paper for 100 marks, admin sets all the weightage and difficulties to solve the problem. As soon as the difficulty and weightage is specified a pre doc file as per selected format will be downloaded to the admin and an electronic mail will be triggered. Range of difficulty may vary from easy, medium and hard.

Keywords:- Administrator, Database, Difficulty level, Random**.**

I. INTRODUCTION

Question Paper Generator is special and unique software, which used in school, institutions, colleges, test paper setters who want to have a huge database of questions for frequent generation of question. This software can be implemented in various medical, engineering and coaching institutes for theory paper. You can create random question paper with these software anytime within seconds. You can enter unlimited units and chapter depending upon the system storage, capacity and as per the requirement. For entering questions you have to first specify the subject and you can enter unlimited questions in a chapter.

Features: Free from tension of collecting question as Built in ready to use question bank is available. One can make may sets of paper from one database. This software assures no duplicity of questions in database. Question paper once generated can be downloaded or emailed to the admin who has logged in. this software provide well-arranged syllabus of related subjects in chapters or modules. Three level of difficulty of questions are provided i.e. Easy, Medium, and Difficult. Question paper is generated with great ease and accuracy in less than a minute. Keeps record of generated question paper. Question paper can be generated and viewed only by admin and password security is provided. Fully customization of test paper institute name, time, instructions and maximum marks. This software provides unique user authentication facilities. Database backup and restore backup facilities is also provided.

II. LITERATURE SURVEY

CQG (Cloze question generation) [1] system that generated list of cloze questions given in English article. CQG system is divided into three main module, Sentence selection, key selection and distractor selection. In the first stage, informative and relevant sentences are selected and in the second stage, keywords (or words/phrases to be questioned on) are identified in the selected sentence key selection will not be noun or adjective it would find on the basis of NER. Distractors (or answer alternatives) for the keyword in the question sentence are chosen in the final stage. First two stage are not domain specific. third stage is domain specific , because quality of distractor depends on domain so distractor will be selected on the basis of the key selected and through web, list of distractors will be generated and knowledge based distractor list will generated. And evaluation of the system is done manually through three phases

1). Evaluation of the selected sentence

2). Evaluation of selected keyword and

3). Evaluation of selected distractor.

Automatic question generation on the basis of the discourse connectives [2], question generation system divided into two modules syllabus and formation of

question. Syllabus includes topics related to institute requirement and formation of questions involves selecting the question according to the syllabus defined by the admin. Researcher concentrates on seven discourse connectives like because, since, although, as a result, for example and for instance on that basis Question type will be decided like if sentence consist since then question type would be *Why*. System has been evaluated for semantic and syntactic soundness of question by two evaluator.

Automatic question generator use various software for their institutions developed an system in which take an input in form of number of questions from the admin and transform it into question paper format based on Bloom's taxonomy. The advantage of generating questions based on Bloom's taxonomy enables to generate the questions that help to assess learning ability of the students. The proposed framework helps in question generation by deploying agents, the agents will perform various operations like document processing, information classification and question generation. Thus system may also be termed as a multi agent system. In Document processing tree tagger tool and stemming process is done to eliminate the human process. Information classification takes an list of keyword generated by Data Processing and finds the Bloom's category of those words, by searching appropriate action verb in the repository which fits with the given keyword. Question generation module takes the output of Information classification as input to generate questions. The process is a template based approach, which fits the selected keywords in the question template according to the Bloom's levels.

Automatic Question Generation system called G-Ask [3], which generates particular questions as a form of guidance for student learning. A case study was conducted on a wide range which involved 24 supervisors and 33 students which resulted on comparing question generated from the software and human generated questions, which proved software generated most efficient. Compared and Citation Classification performance is done through precision and recall, and Question Quality evaluation is done through Cohen's Kappa coefficient.

For generating question Semantic Role Labeller and NER (Named Entity Recognizer) is used to identify whether its Name, Location or Name of Organization. Once Question sentence is prepared, then measures the similarity between the Question sentence and each sentences from the Question knowledge based. Sort the obtained similarity values from other sentences and Get three keyword from three different sentences as an distractor values. The result of research was nearly 145 parsed sentences, there were 109 considered better for the keywords obtained from them.

Semantic Based Automatic Question Generation [4] system uses both Semantic Role Labelling and NER (Named Entity Recognizer) technique is used to convert the inputted sentence to semantic pattern. and developed and Artificial immune system which will change the question paper format.

Question generated in question paper will be of the type who, when, where. System uses features such as storing questions in database, maintenance etc. Inputted sentence will first parse using NER and SRL technique, and from NER and SRL identifies whether, sentences contain person name, location, date, on the basis of this identification question pattern will be identified for example if person name then question pattern would be WHO, sentence pattern for who and question patterns is interpreted as two features vector during training period and For Evaluation sentences where extracted from Wikipedia or TREC 2007. Question generated were 87% perfect as compared to other techniques used in same type of software.

III. WORKING

Admin Login: Admin will be provided with the login ID and password, after registering to the software. After the successful login admin can enter the question in database according to unique key such as paper code and subject name. These question will be stored in the database in the form of question bank. **Question Insertion:** Admin can insert as many questions as he can according to the syllabus requirement of the institutions. This questions will be classified according to marks allocated, level of difficulty.

**Difficulty Choosing:** Admin will decide the level of difficulty i.e. Easy, Moderate, Difficult. **Random Paper**

Generation: Questions are selected according to the level of difficulty.

Wide Chapter Coverage: The system comprises of various topics which cover most of the part of the syllabus.
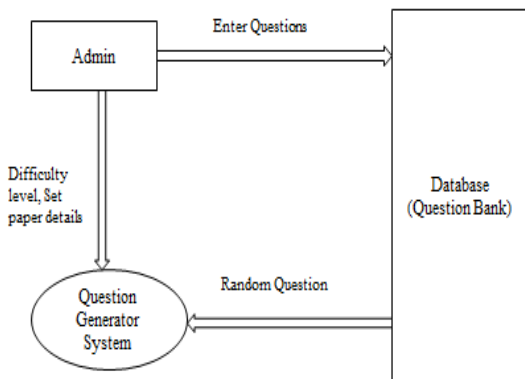
Doc File Creation: The question generated is converted into the format of question paper and then transformed into doc file.

Emailing: The above created doc file can be emailed to the admin.

Flowchart
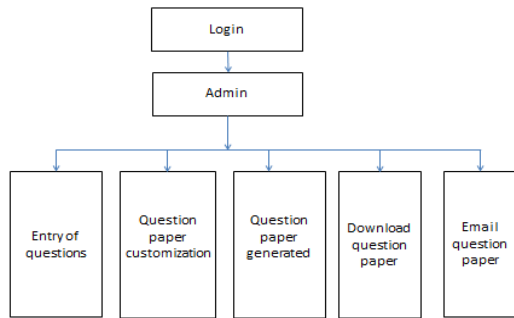
IV. ARCHITECTURE

First the authorized user will register, after the successful registration the user will be provided by the login-Id and password. After logging-In the system admin can enter 'N' numbers of question in the question bank with unique key such as question paper code, subject and level of difficulty. Questions can be entered according to the marks per module specified as per requirement. After questions are stored in database, question paper will be generated accordingly. Question paper will be generated as per level of difficulty specified by the admin. Random questions will be generated at time of setting papers. After the generation of question paper, there will be two options first it will be emailed to the authorized user or admin and the secondly it will be downloaded as a pdf file.

V. SCOPE AND APPLICATION

This software can be widely used in educational institutes etc. It is a web based application so user location doesn't matter. Admin can access this software anywhere anytime.

This system also evaluate the candidate's capability and skills efficiently. It is fully automated system which fast results. In this system there is no need of transporting paper through police/security vans to all colleges. This system provide unbiased result. The usage of this system reduces human effort and save time and resources to an extent.

VI. CONCLUSION

This is a web-Based System. Our future effort is to employee different types of randomization as well as addition to Question Generation, we can enhance the same software by making provision to produce question from online test. This system can emphasize more percentage of difficulty when question papers are referred from this repository.

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