Generation of Question Paper using Credit System

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Abstract – In this competitive world, exams decide the parameter for a student's success and his fate in this competitive world. But this examination practises have proved to be wrong by time and many malpractices were introduced. Difficult question papers and out of syllabus questions have been some problems faced in many examinations by the poor students and it's the students who face the brunt of this mistakes .but with this new software that has been designed the examination papers are being made more flexible and transparent such that the head of the institution has the control for the entire examinations question papers. Currently being used only in colleges, it can be extended to further institutions and at higher levels.

*Keywords – **Examination, question paper***

I.   INTRODUCTION

This application designed in the programming language of C++ is used to generate a final question paper under the supervision of the Head of the Department (H.O.D) and all the concerning teachers of the subject. There will be a set of question bank generated by the H.O.D from which each teacher of that concerned subject will be selecting the questions required for the exams suitably. Thus, the first input for this application is provided by two users namely:

- H.O.D
- Teachers

Further the finally generated question paper will be saved automatically in a text file .so the final question paper is generated and will have no false or unwanted questions.so

this way the final question paper will be generated automatically under the supervision of the Head of the Department of a College.

II.   WORKING

The Head of the Department (HOD) is the main user in this program. He initially will be selecting a set of questions from a particular subject. These questions can be in the number 30 to 40 depending on the subject and the hardness level of the subject. There will be no duplicate questions in this whole set of questions so there needs to be no worry about the duplicate copies in the final generated question paper.

From this set of questions that are being generated by the HOD, these selected questions are given to the teachers concerned to that particular subject. And each teacher will be given those particular credits based on which they will be categorised. This categorical representation for all teachers is done by the HOD himself. And this credits that are being provided by the HOD to the teachers are not known.

Based on the credits, the questions selected by a teacher having higher credit are given more priority than a question that is being selected by a teacher having a lower credit. So in this way the entire question paper is fully finally generated in the required format. There is also a mention where you can change and specify the format for

the question paper. the final question paper that is being generated by this program is finally send to the HOD who would specify if there are some changes that needs to be made or not. The final question paper is saved in a text file format easily.
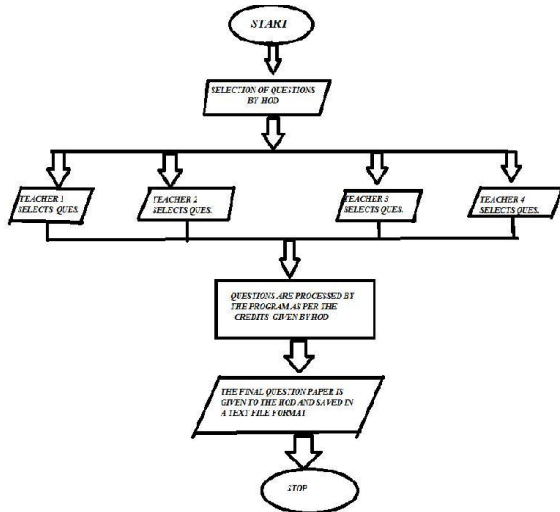

Fig 1: Flowchart description of program

III.   IMPLEMENTATION

The entire coding for this program has been done in the programming language of C++. Hence in this program there are five basic functions that are given different responsibilities to do. Some of the basic important functions of this program have been defined below.

a.   *create ( )*

This function is used basically by the HOD for selecting a preview of the initial question paper and then sends it to the concerned teachers of that particular subject. This initial set of the questions are solely based upon the selection of the HOD and none of the teachers can select questions apart from these selected set of questions.

b.   *teachlogin ( )*

This function is used for the login for techer.Each teachers who are a part of this program are given a unique id and a password for each. With the help of these credentials their account can be safe and could be used only by that particular teacher. There will not be any problem even if any of these above mentioned credentials are lost because

the entire information about the login is stored in the background in a database.

Fig 2: The login page for a teacher

c.   *hodcredits( )*

This function is used to give credits to a particular teacher on a scale of 0-5. So this is what decides the priority of selecting a question .each teacher is given a credit which is unknown to them but it is known only to the HOD. These credits are decided on the basis of the past performances of the teacher and the pass percentages given by that particular teacher .so in this program if the teacher having a higher credit is selecting a question then that question will be selected by the program rather than selecting a question that was selected by a teacher having a lower credit.
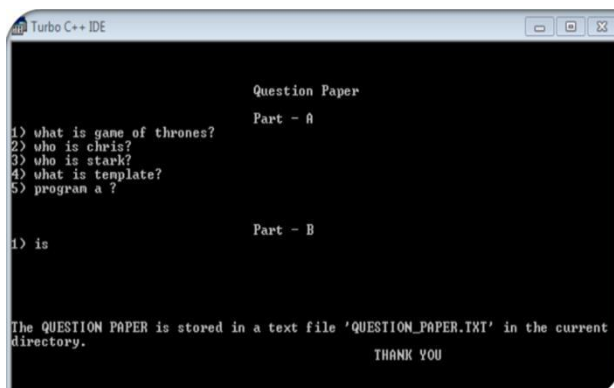

Fig 3: The credits given to teachers

d.   *qstionselector ( )*

This function is used to select the questions which are further selected by the teachers on the basis of the credits given to teachers. One having the higher credit will be selected and will be chosen. In this way the entire final question paper will be selected

And the final question paper will be displayed to the HOD. This selection of the question paper is done automatically by the program and no further input is required at this level.

e.   filesaver()

This function is used to save the final question paper in a text file format so that it becomes easy to take a print-out. Rather the HOD can control this from the program itself in an effective way. Hence this function will be called only if the HOD is pleased about the set of questions that are being generated by the program.

Fig 4: The final question paper

IV.   EXPERIMENTAL RESULTS

Even though this program does not have a good user interface it could well have some good advantages.

1.   This program is implemented in a cost effective way.
2.   There is no doubt of getting questions that are out of syllabus or unwanted questions.
3.   .There will not be any duplicate questions in the end of the runtime as the selection of the questions is already predefined.
4.   The runtime of this program is very less.
5.   Since a database is being used in the background the entire data is safe and secure.

6.   Even if accidentally the final question paper file is missing or deleted a backup will be stored in the database each time a file is created and this backup copy is accessible only by the HOD

V.   FUTURE WORKS

There are some more works that needs to be done on the same program. Further, it is decided that we are going to introduce the concept of encryption to this program, thus, in a sense combining both the fields together.

a.   Encryption

In cryptography, encryption is the process of encoding messages or information in such a way that only authorised parties can read it. Encryption does not itself prevent interception. But denies the message content to the interceptor. In an encryption scheme, the intended communication information or message referred to as plain text is encrypted using an encryption algorithm generating cipher text that can only be read if decrypted. For the decryption there will be an decryption algorithm and this algorithm is designed and are present at both the sender end and at the receiver end.

b.   Encryption in question paper generator

The main idea behind this concept of encryption in question paper generator is to bring down the cases of paper leaks in different parts of India. So if this project if implemented at higher levels, where a common paper needs to be distributed to different parts of a country. Then this encryption will make sure that the paper will be safe and secure.

Once the final question paper is generated, it will be going through a encryption algorithm that will encrypt the question onto a cipher text and then transmitted over to the network and once this is done then the decryption algorithm at the receivers end will complete the decryption and provide the final result.

Fig 5: Encryption example

VI. CONCLUSION

In this paper, we have presented a detailed study of a question paper generator program. With this program we have digitalised the question paper making pattern moving out from the standard manual pattern. Since from now in a very fast pace, everything surrounding us will become digitalised .In many institutions the pen-paper exam has been replaced by the tablets and stylus.and soon in future this will be extended to all the existing educational institutions in India and in such a case this program will be very efficient in future for such a scenario. Along with encryption this program with further some developments can be a good future product.

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