

PROJECT REPORT

EXAMTEX

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Team no : 60

Team Members : Gautam, Revanth, Kiran, Sankeerthana

Overview

This program helps, you to maintain questions of various difficulties and allows you to prepare different question papers with different questions simultaneously

It gives you the freedom to choose the number of questions, the difficulty range of questions to be printed in the question paper.

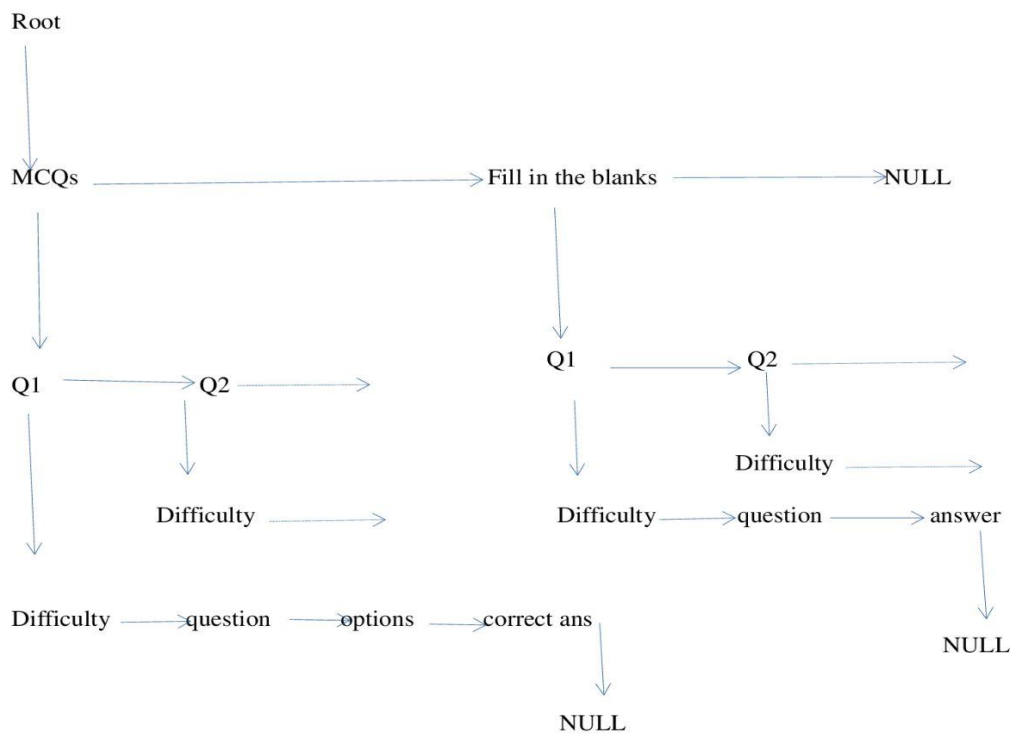
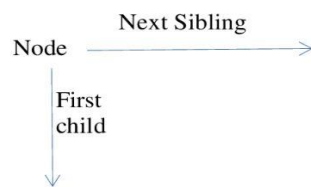
It works using a certain syntax of which more info will be given in the readme.md file

Data Structures Used:

The main data structure that has been used is the Abstract Syntax Tree(AST).

The data from the question bank file is parsed into the AST and is used for getting questions of particular specifications while making the question paper.

AST:



Algorithms used and their complexities:

1. Time Complexity of Parseqp() function is $O(n)$

I. where n is the number of lines in the qp.txt file.

2. Time Complexity of ParseBank() function is $O(n) + (O(\text{NUM_MCQ}) + O(\text{NUM_FILL}))$, Overall $O(n + \text{NUM_MCQ} + \text{NUM_FILL})$

I. where n is the number of lines in the questionbank.txt file, NUM_MCQ indicates the number of MCQs in the questionbank.txt file and NUM_FILL indicates the number of Fill in the blank questions in the questionbank.txt file.

II. ParseBank() file calls MakePtrsToQues() function whose complexity is $(O(\text{NUM_MCQ}) + O(\text{NUM_FILL}))$ so it is included in ParseBank() functions complexity.

III. The time complexity of MakeQuesPaperFile() function in worst case is

$O(\text{NUM_MCQ} * \text{NUM_MCQ}) + O(\text{NUM_FILL} * \text{NUM_FILL})$

Division of work:

We started out with a very elementary code , and then one by one everyone has incrementally Added to the code.

Syntax designing- Gautam and Kiran

Preparing the elementary code(on which functionalities were added later)-Kiran

Error Handling- Revanth

In ast.c

1. Parseqp function- Gautam

2. MakeNode, InitTree, MakePtrsToQues- Kiran

3. Parsebank- Kiran and Gautam

4. MakeQuesPaperFile- Sankeerthana (having more options in MCQs than required (i.e. there are 8 options in the question bank, but when printed each user get 1 correct + 3 wrong options)) and Revanth (creating 3 different question paper files)

README_project.md- Gautam

Comments in code- Sankeerthana

Making questionbank.txt - Kiran, Gautam, Sankeerthana

Report- Revanth, Kiran, Gautam

