

Programming Project / C++ -- Game: Who Wants to Be a Millionaire

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I. Task Description

Student 1 is responsible for the main UI:

- loading the questions and the answers (*function loadQuestions*)
- clearing the terminal (*clearScreen*)
- the direct choices made by the user (through *function startGame*)

Student 2 is responsible for statistics and file management:

- displaying the leaderboard (via *function displayLeaderboard*)
- viewing the game history (*function viewGameHistory*)
- saving the score (*function saveScore*)

II. Data Structures used by the Team

The following classes will be used:

- Question: char question[256], char answers[answers_nr][100], int correct_index;
- Player: name[name_length], float score;

where

answers_nr is defined as #define answers_nr 4

name_length is defined as #define name_length 50

III. File Structure

The following file will be used:

'score.txt' – a file in which the score and name will be stored

<name_1> <score_1>

<name_2> <score_2>

...

'question.txt' – a file in which the questions and answers will be stored

<question_1> <answer_1.1> <answer_1.2> ...

<question_2> ...

...

IV. Interacting with Executables

Application 1 will offer the following options:

`./app_1.exe startGame`

To begin the game – can you become a millionaire?

`./app_1.exe clearScreen`

To clear the screen

`./app_1.exe loadQuestions`

To print all the questions and their corresponding answers

Application 2 will offer the following options:

`./app_2.exe displayLeaderboard`

To take the score.txt and generate the leaderboard

`./app_2.exe viewGameHistory`

Through this function, you can choose a name and show the game history for the corresponding player

`./app_2.exe saveScore`

You can save the score after playing the game