Master “C Language” in 30 Days Challenge

(By Tech Involvers)

Project 5: Quiz Game

Instructions:

- Read the problem carefully before trying to solve it.
- Do the tasks on your own. Don’t copy it.
- The output of your program must be the same as given in the sample run.

Overview:

A Quiz Game is an interactive application where users answer questions to test their knowledge on various topics. The game can present multiple-choice questions, track the player's score, and provide feedback on their performance.

How to Implement

1. Game Loop

- The game runs in a loop, presenting questions to the user and capturing their answers.
- After each question, the game checks the answer, updates the score, and provides feedback.

2. Game State Management

- The game state includes the current question, the player's score, and the total number of questions.

3. Rendering

- Use a text-based interface (console) or a graphical user interface (GUI) to display questions and capture user input.

4. User Input

- Capture user input for selecting answers to the questions.

5. Question Management

- Store questions in a data structure (e.g., a list or array) with their possible answers and the correct answer.
- Load questions from a file or database for flexibility.

6. Scoring and Feedback

- Keep track of the player's score based on correct answers.
- Provide feedback after each question and at the end of the quiz.

7. End of Game

- Display the final score and feedback on the player's performance.
- Offer an option to restart the quiz or exit the game.

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Steps to Implement

1. **Design the Questions**
    - Prepare a set of questions with multiple-choice answers.
    - Store the questions in a structured format (e.g., JSON file, CSV file).
2. **Initialize the Game**
    - Load the questions from the file into the program.
    - Initialize variables for tracking the current question, score, and total number of questions.
3. **Create the Game Loop**
    - Display each question with possible answers.
    - Capture user input for the selected answer.
    - Check if the answer is correct and update the score.
    - Provide feedback on the answer.
4. **Display the Final Score**
    - After all questions are answered, display the player's final score and feedback.
    - Offer options to restart the quiz or exit the game.