

## Solution 2

### Our Second Approach

The second solution added more of the basic functionalities in the first solution by introducing additional features such as the ability to create, edit, and delete quizzes, add users, and manage quizzes with a structured approach. This version included the use of several classes to handle different parts of the quiz system which made the code more readable and easier to maintain.

### Reasons for Not Selecting This Solution

While this solution addressed many of the limitations of the first solution, it still fell a little short in some of the areas. This Solution While this solution was a good improvement over Solution 1, it still had some limitations. Specifically, it lacked a direct method to update an existing quiz. Users had to delete the old quiz and create a new one to update a quiz, which was not very user-friendly.

This solution met all the constraints and requirements of this project:

1. **Application Type:** The system was a desktop application, focusing on providing an interactive user experience.
2. **Question Types:** The system supported multiple question types, including multiple choice and true/false.
3. **Real-Time Scoring:** The system provided real-time scoring upon quiz completion.
4. **Compatibility:** The system was compatible with Java 11 or later.

### Summary of Available Features

- **Login System:** Improved user authentication with support for admin and regular users.
- **Add Quiz:** Admins could add quizzes with multiple questions, improving the basic quiz addition of the first solution.
- **Edit Quiz:** Admins could edit existing quizzes - quiz titles and questions.
- **Delete Quiz:** Admins could also delete quizzes.
- **View All Quizzes:** Both admins and regular users could view all the available quizzes, with detailed information on questions and options.
- **Take Quiz:** Users could take quizzes and receive immediate scores, improving feedback system.
- **Add User:** Admins could add new users which supports better user management.