

ASSIGNMENT ON

Console-Based Quiz Game

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Project Title: Console-Based Interactive Quiz Game

Introduction

In the era of technological advancement, traditional text-based console applications continue to hold significant value due to their simplicity and resource efficiency. A console-based quiz game provides an engaging way for users to test and improve their knowledge across various topics in an interactive and lightweight manner. This project aims to develop a simple and user-friendly console-based quiz game using C++.

Problem Statement

Conventional learning tools are often less engaging due to their lack of interaction. Many users seek lightweight and straightforward solutions that do not rely on complex interfaces. This project

addresses the need for a minimalistic, console-based quiz game that fosters learning and entertainment while utilizing C++ for efficiency and performance.

Objectives

1. Create a lightweight and user-friendly console quiz game.
2. Allow customization of quiz topics and difficulty levels.
3. Include basic gamification features, such as scoring and feedback.
4. Operate entirely offline, requiring no internet connectivity.
5. Provide detailed feedback on performance to encourage learning.

Preliminary Solution

The solution is to develop a C++ console application with the following components:

1. Quiz Module:

- Questions categorized by topics and difficulty levels.
- Time-based and non-timed quiz modes.
- Randomized question selection to ensure uniqueness.

2. Gamification Features:

- Scoring system to track performance.
- Feedback for correct and incorrect answers.

3. Customization Options:

- Selection of topics and difficulty levels.
- Ability to add new questions to the system (admin feature).

4. Offline Functionality:

- Fully functional without internet access.

5. Educational Features:

- Explanation for incorrect answers to enhance learning.
- Performance summary at the end of each quiz session.

Project Scope

In-Scope:

1. Development of a console-based application using C++.
2. Basic gamification features like scoring and feedback.
3. Customizable quiz features with topic and difficulty selection.
4. Offline functionality with a preloaded question bank.
5. Simple and intuitive console interface.

Out-of-Scope:

1. Graphical User Interface (GUI) elements.
2. Real-time multiplayer or online features.
3. Advanced analytics or data visualization.
4. Integration with external APIs or platforms.

Conclusion

This console-based quiz game will serve as an efficient and interactive tool for both education and entertainment. With its focus on simplicity, customization, and gamification, the application will provide an engaging experience for users while demonstrating the versatility of C++ in software development.