

CPP Project Proposal

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Project Title:

"An Interactive Multi-Subject Quiz Game"

Introduction:

This project aims to design and develop an interactive quiz game application that allows users to test their knowledge across different subjects. The game will feature multiple-choice questions (MCQs), a scoring system, and lifelines to enhance engagement and learning. It will be simple, intuitive, and accessible to users of different ages.

Objectives:

- To create a user-friendly quiz platform with multiple-choice questions.
 - To offer quizzes in various subjects (Geography, General Knowledge, English, Mathematics, etc.) so users can choose according to their interest.
 - To implement real-time scoring to motivate users.
 - To integrate lifelines/help options (such as "Ask a Hint", "Skip") to make gameplay exciting.
 - To provide a modular and scalable design so more subjects or questions can be added later.
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Scope:

- **Subjects:** Geography, General Knowledge, English, Mathematics (with option to add more).
 - **Question Types:** Multiple-choice with four options.
 - **Players:** Single-player mode initially, with potential to expand to multiplayer.
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Features:

Feature	Description
User Selection	User chooses a subject before starting the quiz.
MCQ Questions	Each question displays four options; only one correct answer.
Scoring System	Points awarded for each correct answer; cumulative score displayed at the end.
Lifelines	“Hint” (show a clue), “Skip” (skip a question without penalty).
Timer (Optional)	A countdown timer per question to increase challenge.
Result Summary	Shows final score, correct/incorrect answers, and subject-wise performance.
Question Bank	Questions stored in a structured file/database for easy updates.

Technology Stack:

- **Programming Language:** C Language
- **IDE:** DevC++
- **Data Storage:** Notepad or Word Document for question banks.

Work Plan:

Phase	Activities	Duration
Phase 1: Planning	Finalize subjects, features.	Week 1
Phase 2: Design	Create question bank, flowchart, pseudocode.	Week 2
Phase 3: Development	Implement MCQs, scoring, and lifelines.	Weeks 3–4
Phase 4: Testing	Test for errors, validate scoring, user experience.	Week 5
Phase 5: Submission	Prepare final presentation.	Week 6

Expected Outcomes:

- A fully functional, interactive quiz game application.
- A user-friendly interface allowing subject selection.
- Real-time scoring and lifelines for a fun learning experience.
- Modular codebase for easy future expansion.

Conclusion:

This project will not only test the user's knowledge but also make learning engaging and fun. By integrating multiple subjects, scoring, and lifelines, the quiz game will provide a comprehensive and enjoyable educational experience.