

# CPP Project Proposal

## Group Members:

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## Project Title:

**"An Interactive Multi-Subject Quiz Game"**

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## 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.

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## 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.               |

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## Technology Stack:

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

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## 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    |

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## 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.

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## 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.