**CCP 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 application that enables users to test their knowledge across multiple subjects. The game will feature multiple-choice questions (MCQs), a real-time scoring system, and lifelines to make the experience engaging and educational. The application will be designed to be simple, intuitive, and accessible for users of all ages.

## ****Objectives****:

* To develop a **user-friendly quiz system** with multiple-choice questions
* To provide quizzes across various subjects (Geography, General Knowledge, English, Mathematics, etc.) for user choice and engagement.
* To implement **real-time scoring** that motivates and tracks user performance.
* To integrate **lifelines/help options** (e.g., “Hint”, “Skip”) for interactive and exciting gameplay.
* To design the system in a **modular and scalable way**, enabling easy addition of new subjects and questions.

## ****Scope****:

* **Subjects**: Geography, General Knowledge, English, Mathematics (expandable to more subjects).
* **Question Types**: Multiple-choice with four options, one correct answer.
* **Players**: Single-player mode (future scope includes multiplayer support).

## ****Features****:

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| **Feature** | **Description** |
| **User Selection** | Choose a subject before starting the quiz from multiple options. |
| **MCQ Questions** | Each question shows four choices with only one correct answer. |
| **Scoring System** | |  | | --- | |  |  |  | | --- | | Points for correct answers; cumulative score shown at the end. | |
| **Lifelines** | “Hint” (show clue / remove options), “Skip” (no penalty for skipping). |
| **Timer (Optional)** | Countdown timer per question for added challenge. |
| **Result Summary** | Final score, correct/incorrect breakdown, and subject-wise results. |
| **Question Bank** | Questions stored in a file (questions.txt) for structured updates |
| |  | | --- | | **Add Question (Bonus)** |  |  | | --- | |  | | Users can append new questions directly into the file. |
| **UI Enhancements** | ASCII borders, clear headings, and polished user interface. |
| **Modular Code** | Organized functions for loading, displaying, scoring, and lifelines. |

## ****Technology Stack:****

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

## ****Work Plan****:

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| **Phase** | **Activities** | **Duration** |
| **Phase 1: Planning** | Set up file handling: create questions.txt, define struct Question, load questions, and test print. | Week 1 |
| **Phase 2: Design** | Build core quiz flow: subject menu, ask questions, take input, and show basic score. | Week 2 |
| **Phase 3: Development** | Expand fully: add 4 subjects, bigger question bank, input validation, and final score display.  Add features: lifelines (hint/skip), result summary, and polish UI. | Week 3 & 4 |
| **Phase 4: Bonus & Testing** | Add bonus features (timer, add-question option), Debug thoroughly: test subjects, lifelines, scoring, invalid inputs, and overall user experience. | Week 5 |
| **Phase 5: Submission** | Finalize project: freeze code, prepare documentation, slides, demo video, and presentation. | Week 6 |

## ****Expected Outcomes:****

* A functional interactive quiz with multiple-choice questions.
* A user-friendly interface for subject selection.
* Real-time scoring and lifelines for engaging gameplay.
* A modular codebase supporting future expansion.

## ****Conclusion****:

This project demonstrates how a quiz game can combine multiple subjects to broaden knowledge and interest. With real-time scoring and lifelines, it keeps users engaged while testing accuracy. Its modular design allows easy expansion with new questions or subjects. Overall, it offers a fun yet effective way to support learning and knowledge retention.