# **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**:

Feature	Description	
<b>User Selection</b>	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.	
<b>Question Bank</b>	Questions stored in a file (questions.txt) for structured updates	
Add Question (Bonus)	Users can append new questions directly into the file.	
<b>UI Enhancements</b>	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:**

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.