

# **C Programming Mini Project – Quiz Application**

**Course: B. Tech CSE – First Year**

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**Academic Year: 2025-2026**

# Abstract

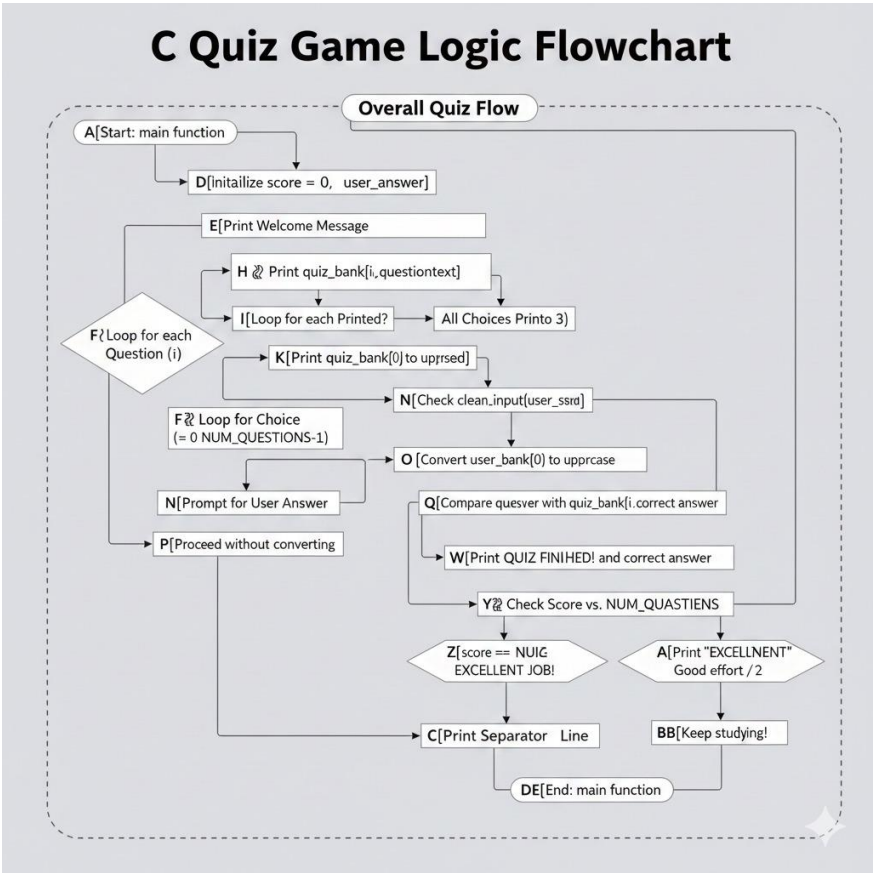
This project presents a simple Quiz Application developed in the C programming language. It displays multiple-choice questions from a predefined question bank, accepts user input, validates the answer, calculates the score, and displays the final result. The project demonstrates core C concepts such as arrays, strings, functions, structures, input handling, and control flow.

## Problem Definition

The aim is to design a C-based console application that handles MCQ-type quiz questions. The system displays questions, accepts answers, validates them, maintains a score, and shows final results.

## System Design

Flowchart:



## **Algorithm:**

1. Start
2. Load question bank
3. Set score = 0
4. For each question:
  - Display question & options
  - Accept input
  - Convert to uppercase
  - Compare with correct answer
  - If correct, score++
5. Display final score
6. End

## **Implementation Details**

### **Technologies Used:**

- C Programming Language
- GCC Compiler

### **Data Structure:**

Structure "Question" stores question text, options, and correct answer.

### **Important Snippet:**

```
typedef struct {  
    char question_text[200];
```

```
char choices[4][50];  
  
char correct_answer[5];  
  
} Question;
```

## Testing & Results

The application was tested with valid inputs, invalid inputs, and full quiz runs. The program handles input cleanly and produces correct scoring.

## Conclusion & Future Work

### Conclusion:

The quiz system works effectively using core C concepts. It is functional, extendable, and user-friendly.

### Future Enhancements:

- Timer per question
- Random question order
- High-score saving
- Difficulty levels
- GUI version

## References

1. Let Us C – Yashavant Kanetkar
2. [cplusplus.com](http://cplusplus.com)
3. [tutorialspoint.com](http://tutorialspoint.com)