ONLINE QUIZ TEST SYSTEM

MINI PROJECT USING C LANGUAGE

Introduction

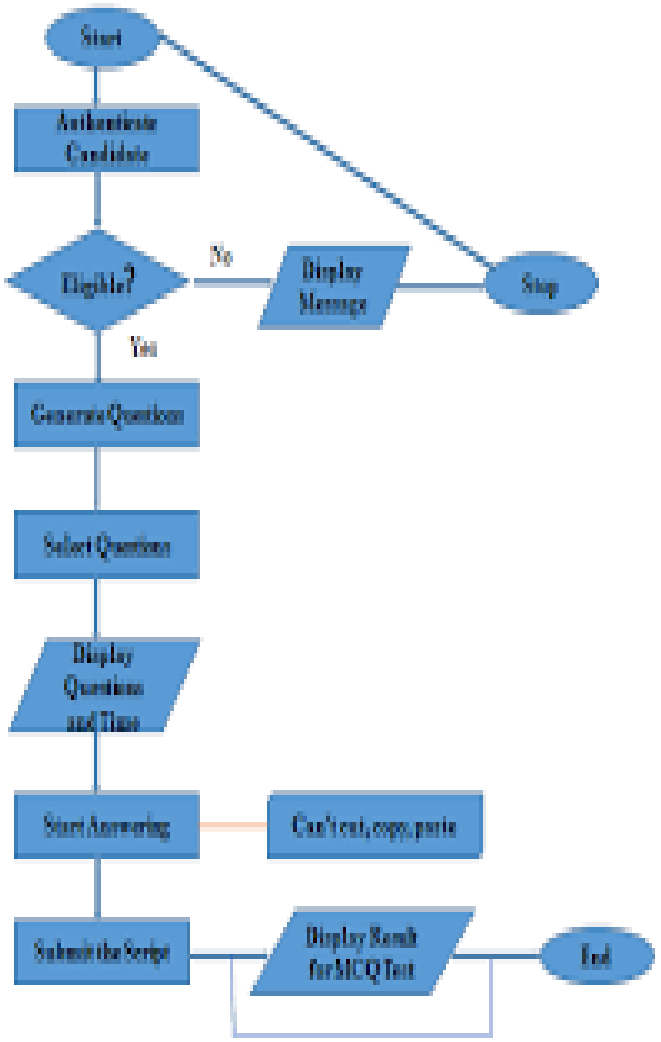
The Online Quiz Test System is a C language based application that conducts a quiz by selecting random questions from a question bank and evaluating user responses.

Objectives

- Design a quiz application using C
- Randomly select questions
- Evaluate answers and calculate score
- Understand modular programming

Software Requirements

- Programming Language: C
- Compiler: GCC / Turbo C
- OS: Windows / Linux


Start
Authenticate Candidate
Eligible?
No
Display Message
Stop
Yes
Generate Questions
Select Questions
Display Questions and Time
Start Answering
Can't exit, copy, paste
Submit the Script
Display Result for MCQ Test
End

Module Division

Member 1: Question Bank & Structure

Member 2: Random Question Selection

Member 3: Answer Checking & Scoring

Member 4: User Interface & Integration

Algorithm

1. Start
2. Initialize question bank
3. Generate random questions
4. Display question
5. Accept answer
6. Validate & update score
7. Display result
8. End

```
// Member 1: Question Structure and Question Bank

struct Question {
    char question[200];
    char options[4][50];
    int correctOption;
};

struct Question questionBank[5] = {
    {
        "What is the capital of India?",
        {"Mumbai", "Delhi", "Chennai", "Kolkata"},
        2
    },
    {
 "Which language is used for system programming?",
        {"Java", "Python", "C", "HTML"},
        3
    },
    {
        "Who is the father of C language?",
        {"Dennis Ritchie", "Bjarne Stroustrup", "James Gosling", "Guido Rossum"},
        1
    },
    {
```

```
"Which symbol is used for pointer in C?",
        {"*", "&", "#", "%"},
        1
    },
    {
        "What is the size of int (typically)?",
        {"2 bytes", "4 bytes", "8 bytes",
"Depends"},
        2
    }
};

    int getRandomQuestion(int used[], int total) {
        int index;
        do {
            index = rand() % total;
        } while (used[index] == 1);

        used[index] = 1;
        return index;
    }
```

```
int checkAnswer(int userAnswer, int correctAnswer)
 {
    if (userAnswer == correctAnswer) {
        printf("Correct!\n");
        return 1;
    } else
 {
        printf("Wrong! Correct answer is option %d\n", correctAnswer);
        return 0;
    }
}
```

```
 #include <stdio.h>
 #include <stdlib.h>
 #include <time.h>

 int getRandomQuestion(int used[], int total);
 int checkAnswer(int userAnswer, int correctAnswer);

 struct Question {
     char question[200];
     char options[4][50];
     int correctOption;
 };
```

```
extern struct Question questionBank[5];

int main() {
    int totalQuestions = 5;
    int used[5] = {0};
    int score = 0;
    int userAnswer;

    srand(time(0));

    printf("===== ONLINE QUIZ TEST =====\n");

    for (int i = 0; i < totalQuestions; i++) {
        int qIndex = getRandomQuestion(used, totalQuestions);

        printf("\nQ%d. %s\n", i + 1, questionBank[qIndex].question);
        for (int j = 0; j < 4; j++) {
            printf("%d. %s\n", j + 1, questionBank[qIndex].options[j]);
        }
```

```
printf("Enter your answer (1-4): ");
        scanf("%d", &userAnswer);

        score += checkAnswer(userAnswer,
questionBank[qIndex].correctOption);
    }

    printf("\n===== QUIZ COMPLETED =====\n");
    printf("Final Score: %d / %d\n", score, totalQuestions);

    return 0;
}
```

Sample output:

```
===== ONLINE QUIZ TEST =====

Q1. What is the capital of India?
1. Mumbai
2. Delhi
3. Chennai
4. Kolkata
Enter your answer (1-4): 2
Correct!

===== QUIZ COMPLETED =====
Your Score: 4 / 5
```

Advantages

- User friendly
- Randomized questions
- Fast execution
- Easy to extend

Thank You

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