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

char askQuestion(const char *question, const char *options)
 {
   char answer;
   printf("%s\n%s", question, options);
   while (1)
        {
   if (scanf(" %c", &answer) != 1 || (answer < 'a' || answer > 'd'))
                  {
     printf("Invalid input. Please enter a valid option (a, b, c, or d).\n");
           while (getchar() != '\n');
          }
else
                   {
       break;
    }
     }
   return answer;
}

void checkAnswer(char userAnswer, char correctAnswer, int *score)
{
       if (userAnswer == correctAnswer)
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        {
        printf("Correct!\n");
        (*score)++;
    }
        else
        {
       printf("Wrong answer. The correct option is %c.\n", correctAnswer);
    }
}
int main()
{
    char answer1;
    char answer2;
    char answer3;
    char answer4;
    int score = 0;

    answer1 = askQuestion("Choose the correct option\nWhat does the 'scanf' function do in C?", "a) Print output to the console\nb) Read input from the user\nc) Perform mathematical calculations\nd) None of the above\n");
    checkAnswer(answer1, 'b', &score);
   answer2 = askQuestion("What is the correct way to declare an integer variable in C?", "a) int x = 5;\nb) integer x = 5;\nc) x = 5;\nd) var x = 5;\n");
    checkAnswer(answer2, 'a', &score);

    answer3 = askQuestion("What is the purpose of the 'return 0;' statement in the main function of a C program?", "a) Terminate the program\nb) Indicate an
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error\nc) Return a value to the operating system\nd) Skip the main
function\n");
    checkAnswer(answer3, 'a', &score);


    answer4 = askQuestion("Which of the following is not a valid C data type?",
"a) int\nb) float\nc) string\nd) char\n");
    checkAnswer(answer4, 'c', &score);
    printf("\nCorrect options:\n");
    printf("Q1: b\tQ2: a\tQ3: a\tQ4: c\n");
    printf("Your answers:\n");
    printf("Q1: %c\tQ2: %c\tQ3: %c\tQ4: %c\n", answer1, answer2, answer3,
answer4);
    printf("Your score is: %d out of 4\n", score);
    return 0;
}
```