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// Example Program #7 - Computing the Dive Score Average
// This program illustrates the use of functions
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// ------------------------------------------------------------------

using System;

class Program
{
    const int NUM_SCORES = 3;

    static void Main()
    {
            Console.WriteLine("Diving Competition Score Calculator. The program ");
            Console.WriteLine("will ask for three dive scores and calculate the
average.");

        // some local variables
            bool doAgain = true;
            double score1, score2, score3;
            double averageScore;

            // the main program loop
            do
            {
                    Console.Write("Please enter in the first score: ");
                    score1 = double.Parse(Console.ReadLine( ) );
                    Console.Write("Please enter in the second score: ");
                    score2 = double.Parse(Console.ReadLine( ) );
                    Console.Write("Please enter in the third score: ");
                    score3 = double.Parse(Console.ReadLine( ) );

                    // here is where we invoke the method to compute the average
                    // score. When the method is done, it will return its value,
which
                    // will be stored in the variable averageScore. Note that the
arguments passed
                    // to the method are the doubles score1, score2, and score3.
                    averageScore = computeAverage(score1, score2, score3);

                    Console.WriteLine("The average of these scores is {0}",
averageScore);

                    // here we invoke the method getYesNo to find out if the user
wants
                    // to average another set of scores. The method returns a true
if the
                    // user answered yes, and false if the user answered no
                    // the method returns a booolean which we will store in the
variable doAgain.
                    // This method takes no parameters.
                    doAgain = getYesNo( );
            }while (doAgain);

            Console.ReadLine( );
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    } // the end of Main

    // Method prologue for the computeAverage method
    // Purpose: Calculates the average dive score
    // Parameters: Three doubles, the individual dive scores
    // Returns: A double, the average score
    // The function header follows
    static double computeAverage(double s1, double s2, double s3)
    {
            // the method's body
        // the average is the sum of the scores divided by 5
            double average = (s1 + s2 + s3) / NUM_SCORES;
            return average;
    }


    // Method prologue for the getYesNo method
    // Purpose: prompts the user for a response, gets the response
    // and checks its validity
    // Parameters: none
    // Returns: A boolean = true for yes, and false for no
    // The method header follows
    static bool getYesNo( )
    {
            // the method's body
        // these are local variables
        string YES = "yes";
            string NO = "no";
            string answer;
            do
            {
                    Console.Write("Do you want to compute another average (yes or
no)? ");
                    answer = Console.ReadLine( );
                    if (answer != YES && answer != NO)
                    {
                            Console.WriteLine("You must respond yes or no");
                    }
            } while (answer != YES && answer != NO);

            if (answer == YES)
                    return true;
            else
                    return false;
    }
}
```