## **QUESTION 1**

Write a C# program to print numbers from 1 to 10.  
  
Write a C# program to check whether a given number is even or odd.  
  
Write a C# program to find the sum of digits of a given number.  
  
Write a C# program to reverse a number entered by the user.  
  
Write a C# program to find the factorial of a given number.  
  
Write a C# program to check whether a given string is a palindrome or not.  
  
Write a C# program to find the largest among three numbers entered by the user.  
  
Write a C# program to display the Fibonacci series up to a given number of terms.  
  
Write a C# program to count the number of vowels and consonants in a string.  
  
Write a C# program to create a simple calculator using switch-case statements.

### **Code Solution**

using System;  
  
class Program  
{  
 static void Main()  
 {  
 Console.WriteLine("Numbers from 1 to 10:");  
 for (int i = 1; i <= 10; i++)  
 {  
 Console.Write(i + " ");  
 }  
 Console.WriteLine();  
  
 int num1 = 7;  
 Console.WriteLine("Number " + num1 + " is " + (num1 % 2 == 0 ? "Even" : "Odd"));  
  
 int num2 = 123;  
 int sum = 0;  
 int temp = num2;  
 while (temp != 0)  
 {  
 sum += temp % 10;  
 temp /= 10;  
 }  
 Console.WriteLine("Sum of digits of " + num2 + " is " + sum);  
  
 int num3 = 456;  
 int reversed = 0;  
 temp = num3;  
 while (temp != 0)  
 {  
 reversed = reversed \* 10 + temp % 10;  
 temp /= 10;  
 }  
 Console.WriteLine("Reverse of " + num3 + " is " + reversed);  
  
 int num4 = 5;  
 long factorial = 1;  
 for (int i = 1; i <= num4; i++)  
 {  
 factorial \*= i;  
 }  
 Console.WriteLine("Factorial of " + num4 + " is " + factorial);  
  
 string str1 = "radar";  
 bool isPalindrome = true;  
 for (int i = 0; i < str1.Length / 2; i++)  
 {  
 if (str1[i] != str1[str1.Length - 1 - i])  
 {  
 isPalindrome = false;  
 break;  
 }  
 }  
 Console.WriteLine("String '" + str1 + "' is " + (isPalindrome ? "Palindrome" : "Not Palindrome"));  
  
 int a = 10, b = 25, c = 15;  
 int largest = a;  
 if (b > largest) largest = b;  
 if (c > largest) largest = c;  
 Console.WriteLine("Largest among " + a + ", " + b + ", " + c + " is " + largest);  
  
 int terms = 8;  
 Console.Write("Fibonacci series up to " + terms + " terms: ");  
 int first = 0, second = 1;  
 for (int i = 1; i <= terms; i++)  
 {  
 Console.Write(first + " ");  
 int next = first + second;  
 first = second;  
 second = next;  
 }  
 Console.WriteLine();  
  
 string str2 = "Hello World";  
 int vowels = 0, consonants = 0;  
 foreach (char ch in str2.ToLower())  
 {  
 if (char.IsLetter(ch))  
 {  
 if ("aeiou".IndexOf(ch) != -1)  
 vowels++;  
 else  
 consonants++;  
 }  
 }  
 Console.WriteLine("In string '" + str2 + "', Vowels: " + vowels + ", Consonants: " + consonants);  
  
 int numA = 7;  
 int numB = 3;  
 char operation = '+';  
 double result = 0;  
 switch (operation)  
 {  
 case '+':  
 result = numA + numB;  
 break;  
 case '-':  
 result = numA - numB;  
 break;  
 case '\*':  
 result = numA \* numB;  
 break;  
 case '/':  
 result = numB != 0 ? (double)numA / numB : 0;  
 break;  
 }  
 Console.WriteLine("Calculator: " + numA + " " + operation + " " + numB + " = " + result);  
 }  
}

### **FINAL Output**

