16. Take 10 integers from keyboard using loop and print their average value on the screen.

using System;

public class Program16

{

public static void Main()

{

int i,n,sum=0;

double avg;

Console.Write("\n\n");

Console.Write("Read 10 numbers and calculate sum and average:\n");

Console.Write("----------------------------------------------");

Console.Write("\n\n");

Console.Write("Input the 10 numbers : \n");

for (i=1;i<=10;i++)

{

Console.Write("Number-{0} :",i);

n= Convert.ToInt32(Console.ReadLine());

sum +=n;

}

avg=sum/10.0;

Console.Write("The sum of 10 no is : {0}\nThe Average is : {1}\n",sum,avg);

}

}

17. Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

using System;

public class Program17 {  
  
    public static void Main()  
    {  
        int[] arr = { 1, 2, 3, 4, 5, 6 };  
        int even = 0, odd = 0;

        // Loop to find even, odd sum  
        for (int i = 0; i < arr.Length; i++)  
        {  
            if (i % 2 == 0)  
                even += arr[i];  
            else  
                odd += arr[i];  
        }

        Console.WriteLine("Even index positions"+ " sum: " + even);  
  
        Console.WriteLine("Odd index positions " + "sum: " + odd);  
    }  
}

18. Determine and print the number of times the character ‘a’ appears in the input entered by the user.

using System;

public class Program18

{

public static void Main()

{

string str = "Capgemini";

char ch = 'a';

int freq = 0;

foreach (char c in str)

{

if (c == ch) {

freq++;

}

}

Console.WriteLine(freq);

}

}

19. program to check leap year

**using** System;

{

**class** Program19

    {

**static** **void** Main(**string**[] args)

        {

            Console.WriteLine("Enter Year : ");

**int** Year = **int**.Parse(Console.ReadLine());

**if** (((Year % 4 == 0) && (Year % 100 != 0)) || (Year % 400 == 0)) Console.WriteLine("{0} is a Leap Year.", Year);

**else** Console.WriteLine("{0} is not a Leap Year.", Year);

            Console.ReadLine();

        }

    }

}

20. Program to Find the Largest and Smallest Numbers From an Array of Random Numbers

**using** System;

**class** Program20

{

**static** **void** Main()

{

**int** i;

**int**[] a = **new** **int**[30];

Console.Write("Enter the Number of values to find Smallest and Largest Number: ");

**int** n = Convert.ToInt16(Console.ReadLine());

 // read the string value and convert it in to integer

//Reading the values one by one

**for** (i = 1; i <= n; i++)

{

Console.Write("Enter the No " + i + ":");

a[i] = Convert.ToInt16(Console.ReadLine());

}

**for** (i = 1; i <= n; i++)

{

**for** (**int** j = 1; j <= n - 1; j++)

{

**if** (a[j] > a[j + 1])

{

**int** temp = a[j];

a[j] = a[j + 1];

a[j + 1] = temp;

}

}

}

//Display the Smallest value

Console.WriteLine("The smallest Value is "+a[1]);

//Display the Biggest Value

Console.WriteLine("The Largest Value is " + a[n]);

Console.ReadKey();

}

}