

ARRAYS -1 :

C# Sharp to store elements in an array and print it.

```
D:\.NET Framework\ConsoleApp\Array_1\storeandprintarray\storeandprintarray\bin\Debug\storeandprintarray.exe
Read and Print elements of an array:
-----
Input 10 elements in the array :
element - 0 :1
element - 1 :2
element - 2 :3
element - 3 :4
element - 4 :5
element - 5 :6
element - 6 :7
element - 7 :8
element - 8 :9
element - 9 :10
Elements in array are:1 2 3 4 5 6 7 8 9 10 _
```

Write a program in C# Sharp to read n number of values in an array and display it in reverse order.

```
D:\.NET Framework\ConsoleApp\Array_1\readanddisplayinreverse\readanddisplayinreverse\bin\Debug\readanddisplayinreverse.exe
Read n number of values in an array and display it in reverse order
-----
Input the number of elements to store in the array : 3

Input 3 number of elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 3

The values store into the array are : 1 2 3

The values store into the array in reverse are : 3 2 1
```

Write a program in C# Sharp to find the sum of all elements of the array.

```
D:\.NET Framework\ConsoleApp\Array_1\sumofallelement\sumofallelement\bin\Debug\sumofallelement.exe
Find the sum of all elements of the array.
-----
Input the number of elements to store in the array : 3

Input 3 number of elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 3

Sum of all elements stored in the array is : 6
```

Write a program in C# Sharp to copy the elements one array into another array.

```
D:\.NET Framework\ConsoleApp\Array_1\copyofarray\copyofarray\bin\Debug\copyofarray.exe

To copy the elements one array into another array.
-----
Input the number of elements to store in the array : 3

Input 3 number of elements in the array :

element - 0 : 1
element - 1 : 2
element - 2 : 3

The elements stored in the first array are :
1 2 3
The elements copied into the second array are :
1 2 3 _
```

C# Sharp to count a total number of duplicate elements in an array.

```
D:\.NET Framework\ConsoleApp\Array_1\duplicatesofarray\duplicatesofarray\bin\Debug\duplicatesofarray.exe

Count total number of duplicate elements in an array:
-----
Input the number of elements to be stored in the array :4
Input 4 elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 1
element - 3 : 2
The number of duplicate elements is: 2
```

C# Sharp to print all unique elements in an array

```
D:\.NET Framework\ConsoleApp\Array_1\uniqueelementsinarrray\uniqueelementsinarrray\bin\Debug\uniqueelementsinarrray.exe

Print all unique elements of an array:
-----
Input the number of elements to be stored in the array :3
Input 3 elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 2

The unique elements found in the array are :
1
```

C# Sharp to merge two arrays of same size sorted in ascending order.

```
D:\.NET Framework\ConsoleApp\Array_1\mergetwoarray\mergetwoarray\bin\Debug\mergetwoarray.exe

Merge two arrays of same size sorted in ascending order.
-----
Input the number of elements to be stored in the first array :3
Input 3 elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 3
Input the number of elements to be stored in the second array :3
Input 3 elements in the array :
element - 0 : 4
element - 1 : 5
element - 2 : 6

The merged array in ascending order is :
1 2 3 4 5 6
```

C# Sharp to count the frequency of each element of an array

```
D:\.NET Framework\ConsoleApp\Array_1\frequencyofeachelement\frequencyofeachelement\bin\Debug\frequencyofeachelement.exe

Count the frequency of each element of an array:
-----
Input the number of elements to be stored in the array :5
Input 5 elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 1
element - 3 : 2
element - 4 : 2

The frequency of all elements of the array :
1 occurs 2 times
2 occurs 3 times
```

C# Sharp to find maximum and minimum element in an array.

```
D:\.NET Framework\ConsoleApp\Array_1\maxiandminiinarray\maxiandminiinarray\bin\Debug\maxiandminiinarray.exe

Find maximum and minimum element in an array :
-----
Input the number of elements to be stored in the array :4
Input 4 elements in the array :
element - 0 : 1
element - 1 : 5
element - 2 : 6
element - 3 : 2
Maximum element is : 6
Minimum element is : 1
```

C# Sharp to separate odd and even integers in separate arrays

```
D:\_NET Framework\ConsoleApp\Array_1\seperateoddandeven\seperateoddandeven\bin\Debug\seperateoddandeven.exe

Separate odd and even integers in separate arrays:
-----
Input the number of elements to be stored in the array :5
Input 5 elements in the array :
element - 0 : 0
element - 1 : 1
element - 2 : 2
element - 3 : 3
element - 4 : 4

The Even elements are :
0 2 4
The Odd elements are :
1 3
```

ARRAYS - 2 :

C# Sharp for a 2D array of size 3x3 and print the matrix.

```
D:\_NET Framework\ConsoleApp\Array_2\twodarrayandprintmatrix\twodarrayandprintmatrix\bin\Debug\twodarrayandprintmatrix.exe

Read a 2D array of size 3x3 and print the matrix :
-----
Input elements in the matrix :
element - [0,0] : 1
element - [0,1] : 2
element - [0,2] : 3
element - [1,0] : 4
element - [1,1] : 5
element - [1,2] : 6
element - [2,0] : 7
element - [2,1] : 8
element - [2,2] : 9

The matrix is :
1      2      3
4      5      6
7      8      9
```

C# Sharp for addition of two Matrices of same size

```
D:\_NET Framework\ConsoleApp\Array_2\additionoftwomatrix\additionoftwomatrix\bin\Debug\additionoftwomatrix.exe

addition of two Matrices :
-----
Input the size of the square matrix (less than 5): 2
Input elements in the first matrix :
element - [0,0] : 1
element - [0,1] : 2
element - [1,0] : 3
element - [1,1] : 4
Input elements in the second matrix :
element - [0,0] : 4
element - [0,1] : 3
element - [1,0] : 2
element - [1,1] : 1

The First matrix is :
1      2
3      4
The Second matrix is :
4      3
2      1
The Addition of two matrix is :
5      5
5      5
```

C# Sharp for subtraction of two Matrices.

```
D:\NET Framework\ConsoleApp\Array_2\subtractionoftwomatrix\subtractionoftwomatrix\bin\Debug\subtractionoftwomatrix.exe

Subtraction of two Matrices :
-----
Input the size of the square matrix (less than 5): 2
Input elements in the first matrix :
element - [0,0] : 1
element - [0,1] : 2
element - [1,0] : 3
element - [1,1] : 4
Input elements in the second matrix :
element - [0,0] : 4
element - [0,1] : 3
element - [1,0] : 2
element - [1,1] : 1

The First matrix is :

1      2
3      4
The Second matrix is :

4      3
2      1
The Subtraction of two matrix is :

-3     -1
1      3
```

C# Sharp for multiplication of two square Matrices.

```
D:\NET Framework\ConsoleApp\Array_2\multiplicationoftwomatrix\multiplicationoftwomatrix\bin\Debug\multiplicationoftwomatrix.exe

Columns : 2

Input the number of rows of the second matrix :
Rows : 2
Columns : 2
Input elements in the first matrix :
element - [0],[0] : 1
element - [0],[1] : 2
element - [1],[0] : 3
element - [1],[1] : 4
Input elements in the second matrix :
element - [0],[0] : 1
element - [0],[1] : 2
element - [1],[0] : 3
element - [1],[1] : 4

The First matrix is :

1      2
3      4
The Second matrix is :

1      2
3      4
The multiplication of two matrix is :

7      10
15     22
```


C# Sharp to find transpose of a given matrix.

```
D:\.NET Framework\ConsoleApp\Array_2\transposeofmatrix\transposeofmatrix\bin\Debug\transposeofmatrix.exe

Transpose of a Matrix :
-----

Input the number of rows and columns of the first matrix :
Rows : 2
Columns : 2
Input elements in the matrix :
element - [0],[0] : 1
element - [0],[1] : 2
element - [1],[0] : 3
element - [1],[1] : 4

The First matrix is :

1      2
3      4

The Transpose of a matrix is :
1      3
2      4
```

METHODS :

C# Sharp to create a user define function.

```
D:\.NET Framework\ConsoleApp\Methods\userdefinefunction\userdefinefunction\bin\Debug\userdefinefunction.exe

To create an user define function :
-----

Welcome Friends!
Have a nice day!
```

C# Sharp to create a user define function with parameters.

```
D:\.NET Framework\ConsoleApp\Methods\userdefinewithparameter\userdefinewithparameter\bin\Debug\userdefinewithparameter.exe

To create an user define function with parameters :
-----

Please input a name : Jaga
Welcome friend Jaga !
Have a nice day!
```

C# Sharp to create a function for the sum of two numbers.

```
D:\.NET Framework\ConsoleApp\Methods\sumoftwono\sumoftwono\bin\Debug\sumoftwono.exe

Function to calculate the sum of two numbers :
-----
Enter a number: 10
Enter another number: 10

The sum of two numbers is : 20
```

C# Sharp to create a function to input a string and count number of spaces are in the string

```
D:\.NET Framework\ConsoleApp\Methods\noofspacesinstr\noofspacesinstr\bin\Debug\noofspacesinstr.exe

Function to count number of spaces in a string :
-----
Please input a string : this is the sting
"this is the sting" contains 3 spaces
```

C# Sharp to calculate the sum of elements in an array.

```
D:\.NET Framework\ConsoleApp\Methods\sumofelementinarray\sumofelementinarray\bin\Debug\sumofelementinarray.exe

Function : Calculate the sum of the elements in an array :
-----
Input 5 elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 3
element - 3 : 4
element - 4 : 5
The sum of the elements of the array is 15
```

C# Sharp to create a function to swap the values of two integer numbers

```
D:\.NET Framework\ConsoleApp\Methods\swapthevalues\swapthevalues\bin\Debug\swapthevalues.exe

Function : To swap the values of two integer numbers :
-----
Enter a number: 5
Enter another number: 6
Now the 1st number is : 6 , and the 2nd number is : 5
```

C# Sharp to create a function to calculate the result of raising an integer number to another

```
D:\.NET Framework\ConsoleApp\Methods\raisingaint\raisingaint\bin\Debug\raisingaint.exe

Function : To calculate the result of raising an integer number to another :
-----
Input Base number: 3
Input the Exponent : 2
So, the number 3 ^ (to the power) 2 = 9
```

C# Sharp to create a function to display the n number Fibonacci sequence

```
D:\.NET Framework\ConsoleApp\Methods\fibonaccisequence\fibonaccisequence\bin\Debug\fibonaccisequence.exe

Function : To display the n number Fibonacci series :
-----
Input number of Fibonacci Series : 5
The Fibonacci series of 5 numbers is :
0 1 1 2 3
```

C# Sharp to create a function to check whether a number is prime or not.

```
D:\.NET Framework\ConsoleApp\Methods\primeno\primeno\bin\Debug\primeno.exe

Function : To check a number is prime or not :
-----
Input a number : 20
20 is not a prime number
```

C# Sharp to create a function to calculate the sum of the individual digits of a given number

```
D:\.NET Framework\ConsoleApp\Methods\sumofindividualdigits\sumofindividualdigits\bin\Debug\sumofindividualdigits.exe

Function : To calculate the sum of the individual digits of a number :
-----
Enter a number: 1234
The sum of the digits of the number 1234 is : 10
```