Coding Questions

1.Revesrse Array using List:

namespace ReverseArray

{

class ArrayReverse

{

public void reverseArr()

{

Console.WriteLine("Enter Length of Array");

int arrLength= Convert.ToInt32(Console.Readline());

int[] array= new int[arrLength];

for(int i =0;i<arrLength;i++)

{

Console.WriteLine("Enter Element");

int element= Convert.ToInt32(Console.Readline());

array[i]= element;

}

Console.WriteLine("Array is:);

foreach(int item in array)

{

Console.WriteLine(item);

}

List<int> reverseArray= new List<int>();

for(int i = arrayLength;i>0;i--)

{

reverseArray.Add(i);

}

int[] ints= reverseArray.ToArray();

foreach(int item in reverseArray)

{

Console.WriteLine(item);

}

}

static void Main (string[] args)

{

ArrayReverse P = new ArrayReverse();

p.reverseArr();

}

}

}

2. Reverse Array using For Loop:

namespace ReverseArray

{

class ArrayReverse

{

public void ReverseArraymethod()

{

Console.WriteLine("Enter Length of Array");

int arrLength = Convert.ToInt32(Console.ReadLine());

int[] array=new int[arrLength];

for(int i=0; i<arrLength;i++)

{

Console.WriteLine("Enter Element");

int element = Convert.ToInt32(Console.ReadLine());

array[i]=element;

}

int[] reverseArray = new int[arrLength];

for(int i=0;i<arrLength;i++)

{

reverseArray[i]=array[arrLength-i-1];

}

foreach(int item in reverseArray)

{

Console.WriteLine(item);

}

}

static void Main(string[] args)

{

ArrayReverse ar= new ArrayReverse();

ar.ReverseArrayMethod();

}

}

}

3. Reverse String Using StringBuilder

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Channels;

using System.Threading.Tasks;

namespace ArrayReverseDemo

{

class StringReverseDemo

{

static void Main()

{

Console.WriteLine("Enter String");

string name=Console.ReadLine();

StringBuilder stringBuilder = new StringBuilder(name.Length);

for (int i = name.Length-1; i >=0; i--)

{

stringBuilder.Append(name[i]);

}

Console.WriteLine(stringBuilder.ToString());

}

}

}

4. Reverse String Using For Loop:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Channels;

using System.Threading.Tasks;

namespace ArrayReverseDemo

{

class StringReverseDemo

{

static void Main()

{

Console.WriteLine("Enter String");

string name=Console.ReadLine();

char[] stringArray = name.ToCharArray();

string reverse = String.Empty;

for (int i = stringArray.Length-1; i >= 0; i--)

{

reverse = reverse + stringArray[i];

}

Console.WriteLine(reverse);

}

}

}

5. Find Min Max from Array:

namespace FindMinMaxArray

{

class FindMinMax

{

static void Main(string[] args)

{

Console.WriteLine("Enter Size of Array");

int arrLength= Convert.ToInt32(Console.ReadLine());

int[] array= new int[arrLength];

for(int i =0; i<arrLength;i++)

{

Console.WriteLine("Enter Element");

int element= Convert.ToInt32(Console.ReadLine());

array[i]=element;

}

int min =0;

int max=0;

for(int i =0;i<arrLength;i++)

{

if(min>array[i])

{

min=array[i];

}

if(max<array[i])

{

max=array[i];

}

}

Console.WriteLine("Min Value : "+ min);

Console.WriteLine("Max Value : " + max);

}

}

}

6. Array Sort and Find 2nd Highest element:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ArraySortDemo

{

class ArraySort1

{

public void ArraySort2()

{

Console.WriteLine("Enter length of array23");

int arrayLength = Convert.ToInt32(Console.ReadLine());

int[] arr = new int[arrayLength];

for (int i = 0; i < arrayLength; i++)

{

Console.WriteLine("enter element");

int element = Convert.ToInt32(Console.ReadLine());

arr[i] = element;

}

int temp;

for (int i = 0; i < arrayLength; i++)

{

for (int j = i; j < arrayLength; j++)

{

if (arr[i] > arr[j])

{

temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

foreach (var item in arr)

{

Console.WriteLine(item);

}

Console.WriteLine("------------");

Console.WriteLine(arr[arrayLength-2]);

}

static void Main(string[] args)

{

ArraySort1 arraySort1 = new ArraySort1();

arraySort1.ArraySort2();

}

}

}

7. Count Duplicate Char from String using LINQ:

namespace CountDuplicateChar

{

internal class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter String");

string str= Console.ReadLine();

var duplicateChar = str

.Where(c => !char.IsWhiteSpace(c))

.GroupBy(c => c)

.Where(g => g.Count() > 1)

.Select(g => new { Char = g.Key, Count = g.Count() });

Console.WriteLine("Duplicate char");

foreach (var group in duplicateChar)

{

Console.WriteLine($"Character:{group.Char},Count:{group.Count}");

}

}

}

}

8. Count Duplicate Element from Array using LINQ:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Channels;

using System.Threading.Tasks;

namespace CountDuplicateElementFromArray

{

class CountDuplicateFromArray

{

static void Main(string[] args)

{

Console.WriteLine("Enter length of Array");

int arrayLength=Convert.ToInt32(Console.ReadLine());

int[] array= new int[arrayLength];

for (int i = 0; i < arrayLength; i++)

{

Console.WriteLine("Enter Element");

int element=Convert.ToInt32(Console.ReadLine());

array[i]=element;

}

Console.WriteLine("------------------------");

var duplicateCount = array

.GroupBy(x => x)

.Where(g=>g.Count()>1)

.Select(x => new {digit=x.Key,count=x.Count()});

foreach (var item in duplicateCount)

{

Console.WriteLine($"digit:{item.digit},count:{item.count}");

}

}

}

}

9. Count Duplicates from Array using Dictionary:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace C\_CodingFindDuplicateWithOcc

{

internal class CountDuplicateNumberFromArray

{

static void Main(string[] args)

{

Console.WriteLine("Enter length of Element");

int arrayLength = Convert.ToInt32(Console.ReadLine());

int[] array = new int[arrayLength];

for (int i = 0; i < arrayLength; i++)

{

Console.WriteLine("Enter Element");

int element = Convert.ToInt32(Console.ReadLine());

array[i] = element;

}

Dictionary<int,int> dict = new Dictionary<int, int>();

foreach (int item in array)

{

if (dict.ContainsKey(item))

{

dict[item]++;

}

else

{

dict[item] = 1;

}

}

foreach (var pair in dict.Keys)

{

Console.WriteLine("Value: "+ pair + " occurrence :" + dict[pair]);

}

}

}

}

10. Count Duplicates from String using Dictionary:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace C\_CodingFindDuplicateWithOcc

{

internal class CountDuplicateFromStringWithOcc

{

static void Main(string[] args)

{

Console.WriteLine("Enter String");

String string1=Console.ReadLine();

Dictionary<char,int> dict = new Dictionary<char,int>();

foreach (char c in string1.Replace(" ",string.Empty))

{

if (dict.ContainsKey(c))

{

dict[c] = dict[c]+1;

}

else

{

dict[c] = 1;

}

}

foreach (var item in dict.Keys)

{

Console.WriteLine(item + " : " + dict[item]);

}

}

}

}

11. Sum of Digits of Number:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ArrayReverseDemo

{

class SumOfDigits

{

static void Main()

{

Console.WriteLine("Enter Number");

int number = Convert.ToInt32(Console.ReadLine());

int sum = 0;

int reminder;

while (number > 0)

{

reminder = number % 10;

sum=sum+reminder;

number = number / 10;

}

Console.WriteLine($"The sum of Digits is: {sum}");

}

}

}

12. Code for Star Print:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace C\_Coding.C\_CodingPractice

{

class StarPrint

{

static void Main()

{

Console.WriteLine("Enter Number");

int number = Convert.ToInt32(Console.ReadLine());

for(int i = 1; i <= number; i++)

{

for(int j = 1; j <= i; j++)

{

Console.Write("\* ");

}

Console.WriteLine();

}

}

}

}

13. Code for Reverse Star

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace C\_Coding.C\_CodingPractice

{

class ReverseStar

{

static void Main()

{

Console.WriteLine("Enter Number ");

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

for(int i = n; i >=1; i--)

{

for(int j = 1; j <= i; j++)

{

Console.Write("\* ");

}

Console.WriteLine();

}

}

}

}

14. Fibonacci Series:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace C\_Coding.C\_CodingPractice

{

class febonacci

{

static void Main()

{

Console.WriteLine("Enter range");

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

int a = 0;

int b = 1;

int temp;

for (int i = 0; i <= n; i++)

{

temp = a + b;

a = b;

b=temp;

Console.WriteLine(temp);

}

}

}

}