Dnyanada Dhore
NC4 Batch

1. Write a program in C# Sharp to find maximum and minimum elements in an array.

Find maximum and minimum element in an array :

Input the number of elements to be stored in the array :2
Input 2 elements in the array :
element - 0 : 20
element - 1 : 25
Maximum element is : 25
Minimum element is : 20

Code:---
```
using System;
public class HelloWorld
{
  public static void Main(string[] args)
  {
     int[] arr1= new int[100];
     int i, mx, mn, n;
    Console.Write("\n\nFind maximum and minimum element in an array :\n");
    Console.Write("-------------------------------------------------\n");
    Console.Write("Number of elements to be stored in the array:");
         n= Convert.ToInt32(Console.ReadLine());
    Console.Write("Input {0} elements in the array :\n",n);
    for(i=0;i<n;i++)
     {
           Console.Write("element - {0}:",i);
           arr1[i] = Convert.ToInt32(Console.ReadLine());
     }
     mx = arr1[0];
     mn = arr1[0];
    for(i=1; i<n; i++)
    {
     if(arr1[i]>mx)
     {
        mx = arr1[i];
     }
     if(arr1[i]<mn)
     {
        mn = arr1[i];
     }
```

```
        }
    Console.Write("Maximum element is : {0}\n", mx);
    Console.Write("Minimum element is : {0}\n", mn);
    }
}
```



```
 5 ▾    {
 6        int[] arr1= new int[100];
 7        int i, mx, mn, n;
 8        Console.Write("\n\nFind maximum and minimum element in an array :\n");
 9        Console.Write("------------------------------------------------\n");
10        Console.Write("Number of elements to be stored in the array:");
11        n= Convert.ToInt32(Console.ReadLine());
12        Console.Write("Input {0} elements in the array :\n",n);
13        for(i=0;i<n;i++)
14 ▾      {
15          Console.Write("element - {0}:",i);
16          arr1[i] = Convert.ToInt32(Console.ReadLine());
17        }
18        mx = arr1[0];
19        mn = arr1[0];
20        for(i=1; i<n; i++)
21 ▾      {
22          if(arr1[i]>mx)
23 ▾        {
24            mx = arr1[i];
25          }
26          if(arr1[i]<mn)
27 ▾        {
28            mn = arr1[i];
29          }
30        }
```

Output:
```
mono /tmp/Bi70zIbKm6.exe
Find maximum and minimum element in an array :
------------------------------------------------
Number of elements to be stored in the array:2
Input 2 elements in the array :
element - 0:25
element - 1:20
Maximum element is : 25
Minimum element is : 20
```

----

2. Find maximum occurring character in a string :

Input the string : Welcome to welcome
The Highest frequency of character 'e' is appearing for number of times
 : 2

Code:-----

```
using System;
public class HelloWorld
{
  public static void Main(string[] args)
  {

    string str;
    int[] ch = new int[255];
    int i = 0, max,l;
    int ascii;

      Console.Write("\n\nFind maximum occurring character in a string :\n");
      Console.Write("--------------------------------------------------\n");
      Console.Write("Input the string : ");
      str = Console.ReadLine();
      l=str.Length;
```

```
for(i=0; i<255; i++)     {
    ch[i] = 0;
}
  i=0;
while(i<l)
{
    ascii = (int)str[i];
    ch[ascii] += 1;

    i++;
}
max = 0;
for(i=0; i<255; i++)
{
  if(i!=32)
    {
    if(ch[i] > ch[max])
        max = i;
    }
}
Console.Write("The Highest frequency of character '{0}' is appearing for number of times : {1}
\n\n", (char)max, ch[max]);
  }
}
```



```
Main.cs                                                    Run    Output                                                        Clear
1  using System;                                                  mono /tmp/Bi70zIbKm6.exe
2  public class HelloWorld                                        Find maximum occurring character in a string :
3 ▾ {                                                             --------------------------------------------
4      public static void Main(string[] args)                     Input the string : Welcome
5 ▾    {                                                          The Highest frequency of character 'e' is appearing for number of times : 2
6
7      string str;
8      int[] ch_fre = new int[255];
9      int i = 0, max,l;
10     int ascii;
11
12       Console.Write("\n\nFind maximum occurring character in a string :\n");
13       Console.Write("--------------------------------------------------\n");

14       Console.Write("Input the string : ");
15       str = Console.ReadLine();
16       l=str.Length;
17
18       for(i=0; i<255; i++)  //Set frequency of all characters to 0
19 ▾     {
20          ch_fre[i] = 0;
21       }
22       /* Read for frequency of each characters */
23       i=0;
24       while(i<l)
```

----

3. find the position of a specified word in a given string.

Sample Example:
Text: The   quick brown fox   jumps over   the   lazy   dog.

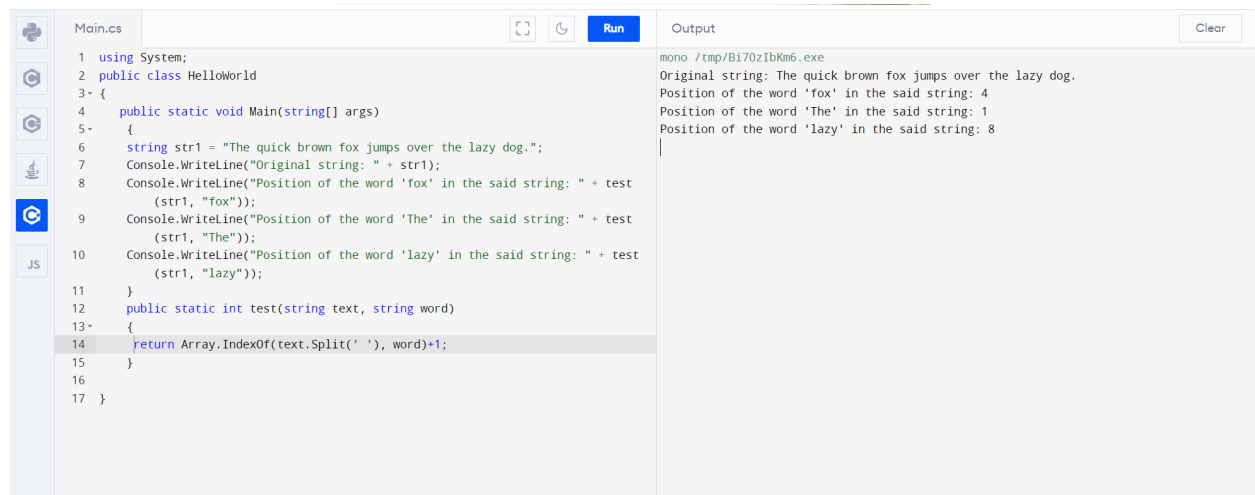| Position:	1	2	3	4	5	6	7	8	9

Sample Output:
input: fox
Position of the word 'fox' in the said string: 4

code:----

```csharp
using System;
public class HelloWorld
{
   public static void Main(string[] args)
   {
   string str1 = "The quick brown fox jumps over the lazy dog.";
   Console.WriteLine("Original string: " + str1);
   Console.WriteLine("Position of the word 'fox' in the said string: " + test(str1, "fox"));
   Console.WriteLine("Position of the word 'The' in the said string: " + test(str1, "The"));
   Console.WriteLine("Position of the word 'lazy' in the said string: " + test(str1, "lazy"));
   }
   public static int test(string text, string word)
   {
    return Array.IndexOf(text.Split(' '), word)+1;
   }

}
```

```
Main.cs                                    [ ]  G   Run        Output                                                              Clear
 1  using System;                                                 mono /tmp/Bi70zIbKm6.exe
 2  public class HelloWorld                                       Original string: The quick brown fox jumps over the lazy dog.
 3▾ {                                                             Position of the word 'fox' in the said string: 4
 4      public static void Main(string[] args)                    Position of the word 'The' in the said string: 1
 5▾     {                                                         Position of the word 'lazy' in the said string: 8
 6         string str1 = "The quick brown fox jumps over the lazy dog.";
 7         Console.WriteLine("Original string: " + str1);
 8         Console.WriteLine("Position of the word 'fox' in the said string: " + test
           (str1, "fox"));
 9         Console.WriteLine("Position of the word 'The' in the said string: " + test
           (str1, "The"));
10         Console.WriteLine("Position of the word 'lazy' in the said string: " + test
           (str1, "lazy"));
11      }
12      public static int test(string text, string word)
13▾     {
14         return Array.IndexOf(text.Split(' '), word)+1;
15      }
16
17  }
```