Practical 2

Console Based Applications using C#

1) W.A.P to get n number of strings from the user. Find out total no. of duplicate strings and display duplicate strings along with duplicate occurrence using 1D array.

Code:-

```
using System;

namespace C1
{
  class Program
  {
    static void Main(string[] args)
   {
       Console.WriteLine("Enter the total number
      value");
      int n =
      Convert.ToInt32(Console.ReadLine());
      String[] ar = new String[n];
      for (int i = 0; i < n; i++)
      {
       Console.WriteLine("Enter the the " + i +
      "th string");
          ar[i] = Console.ReadLine();
      }
      int c = 0;
      for (int i = 0; i < n; i++)
      {
         for (int j = i+1; j < n; j++)
         {
             if (ar[i] == ar[j])
```

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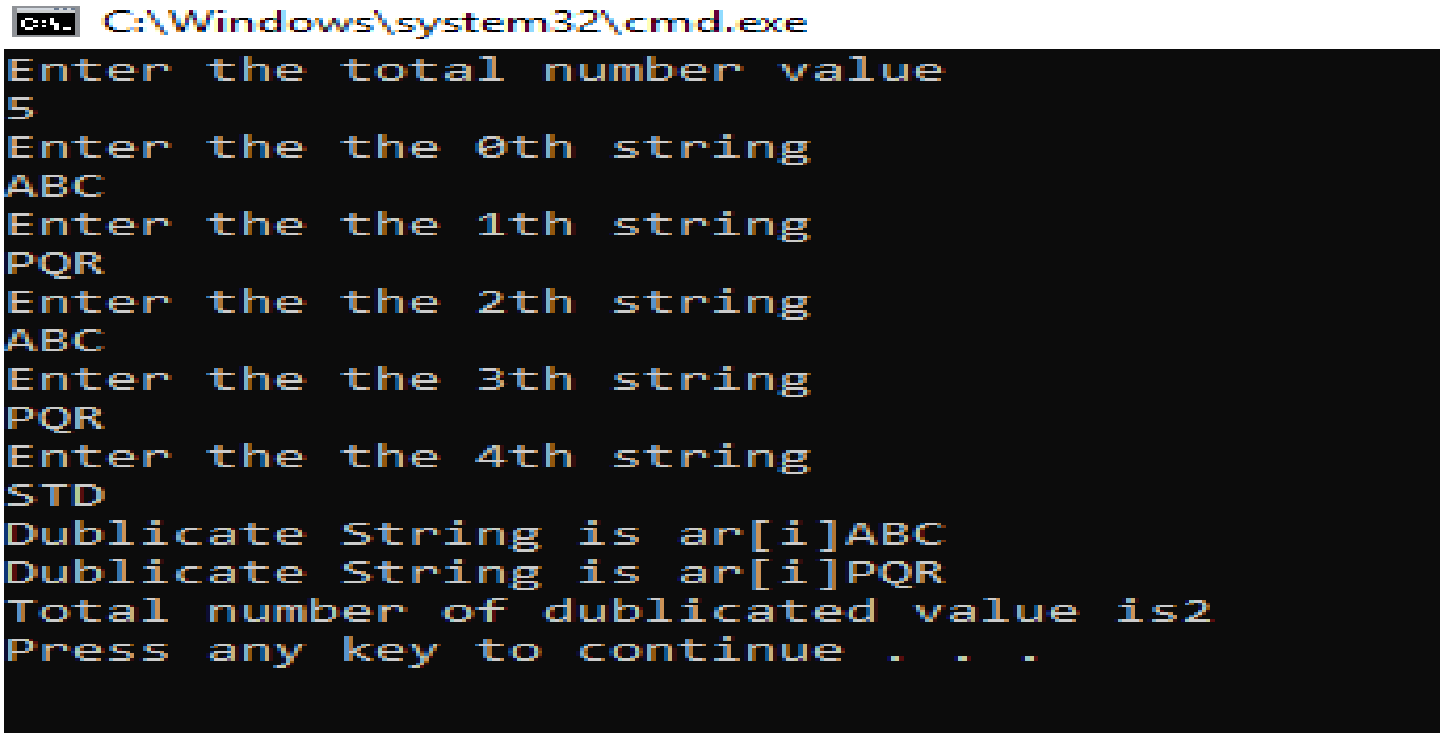
```
                {

                Console.WriteLine("Dublicate String
                is"+ar[i]);
                        c = c + 1;
                }
            }
        }
         Console.WriteLine("Total number of
         duplicated value is" + c);

    }
  }
}
```

O/P:-



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2) W.A.P to calculate area of Circle, Ractangle, Square and Tringle. Which contain two classes in which 1st class contains main method & 2nd class which contains methods to find area for diff. shapes using method overloading?

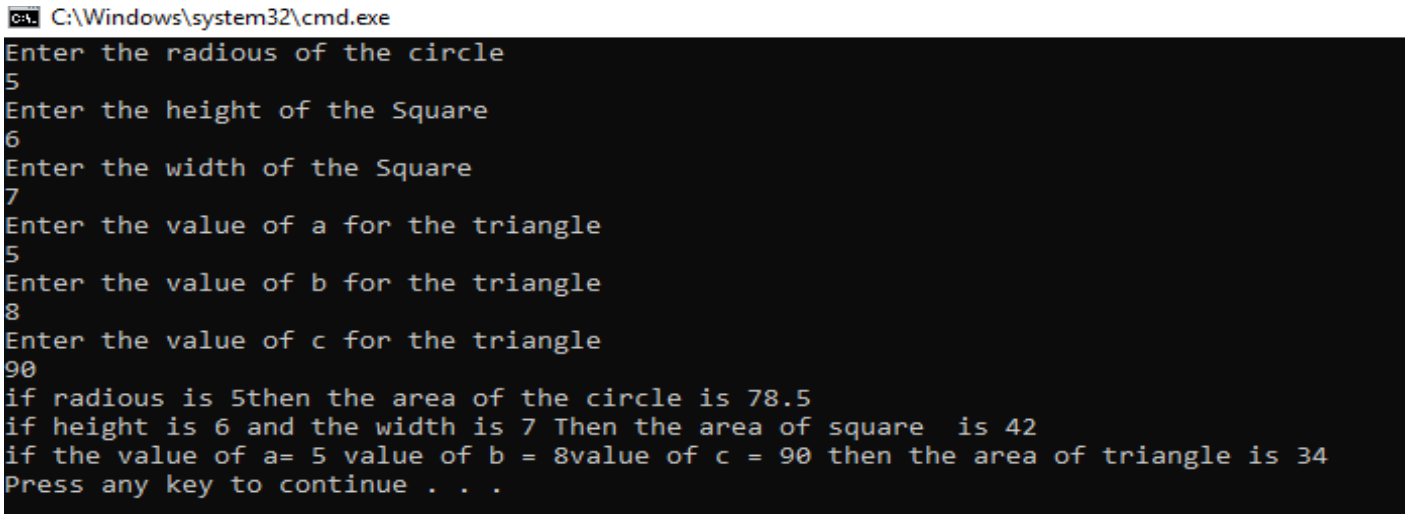
Code:-

```
using System;

namespace C2

{
    class Calculator
    {
        static double pi = 3.14;
        public double Area(int n)
        {
            return pi * n * n;
        }
        public double Area(int h,int w)
        {
            return h * w;
        }
        public double Area(int a, int b, int c)
        {
            return (a + b + c) / 3;
        }


    }
    class Program
    {
        static void Main(string[] args)
```

```
{
    Calculator c1 = new Calculator();
     Console.WriteLine("Enter the radious of the
     circle");
    int r = Convert.ToInt32(Console.ReadLine());
    double ans = c1.Area(r);
     Console.WriteLine("Enter the height of the
     Square");
    int h = Convert.ToInt32(Console.ReadLine());
     Console.WriteLine("Enter the width of the
     Square");
    int w = Convert.ToInt32(Console.ReadLine());
    double ans1 = c1.Area(h, w);
     Console.WriteLine("Enter the value of a for
     the triangle");
    int a = Convert.ToInt32(Console.ReadLine());
     Console.WriteLine("Enter the value of b for
     the triangle");
    int b =Convert.ToInt32(Console.ReadLine());
     Console.WriteLine("Enter the value of c for
     the  triangle");
    int c = Convert.ToInt32(Console.ReadLine());
    double ans2 = c1.Area(a, b, c);
     Console.WriteLine("if radious is " + r +
     "then the area of   the circle is " + ans);
     Console.WriteLine("if height is " + h + "
     and the width is" + w + " Then the area of
     square  is " + ans1);
     Console.WriteLine("if the value of a= "+a+"
     value of b = "+b+"value of c = "+c+" then
     the area of triangle is "+ans2);
}
```

```
    }
}
```

O/P:-



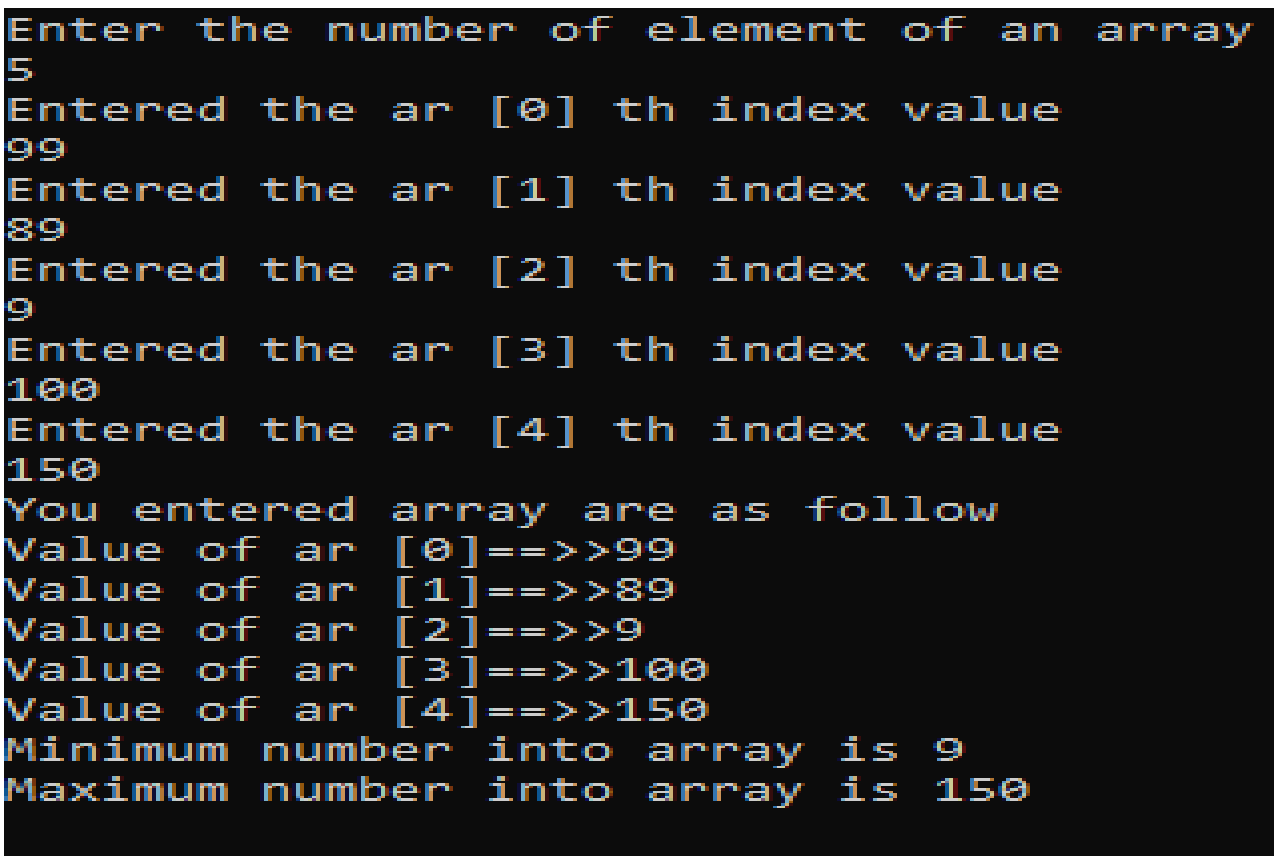
3) W.A.P. to find max and min number from an integer array. Create a method getMinMax() by passing out parameter.

```
using System;
namespace C3
{
    class Program
    {
        public static void getMinMax (int[] a, int b)
        {
            int min, max;
            min = a[0];
            max = a[0];
            for (int i = 1; i < b; i++)
            {
                if (min >= a[i])
                {
```

```
                min=a[i];
            }
            if(max<= a[i])
            {
                max = a[i];
            }
        }
         Console.WriteLine   ("Minimum   number   into
         array is "+min);
         Console.WriteLine   ("Maximum   number   into
         array is" + max);


}
static void Main(string[] args)
{
 Console.WriteLine ("Enter the number of element
 of an array");
    int n = Convert.ToInt32(Console.ReadLine());
    int[] ar = new int[n];
    for (int i = 0; i < n; i++)
    {
      Console.WriteLine ("Entered the ar [" + i
      + "] th index value");
     ar[i]= Convert.ToInt32(Console.ReadLine());

    }

     Console.WriteLine("You entered array are as
     follow");
    for (int i = 0; i < n; i++)
    {
```

```
                Console.WriteLine    ("Value    of    ar
                ["+i+"]==>>"+ar[i]);
            }
            getMinMax(ar, n);
            Console.ReadKey();


        }
    }
}
```

O/P:-



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4) Write a Program to create an int Jagged Array which consists at least 5 array in it. Sort every array of Jagged array and display all jagged array after sorting.

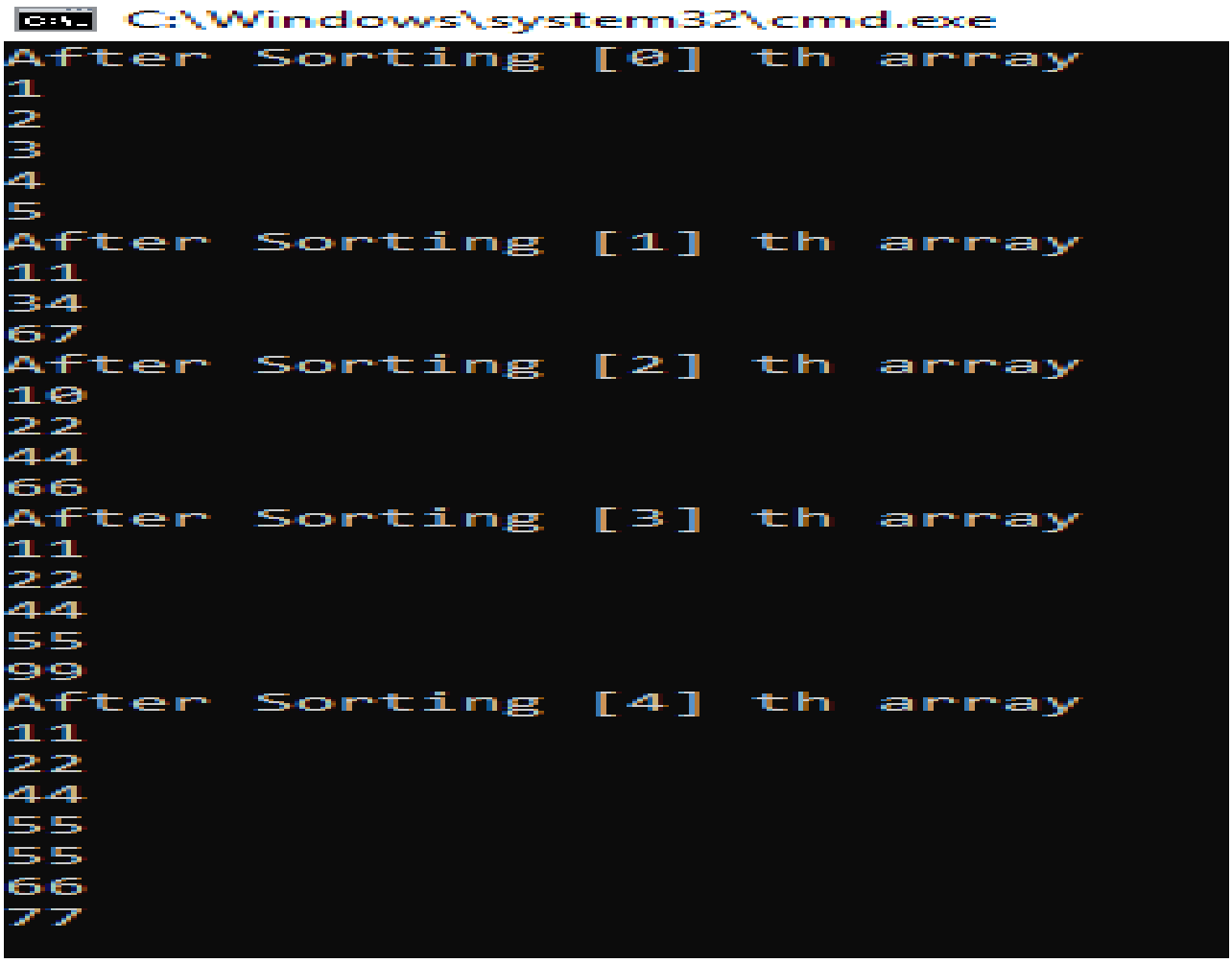
Code:-

```
using System;
namespace C4
{
    class Program
    {
        static void Main(string[] args)
        {
            int[][] jagged_array = new int[5][];
          jagged_array[0] = new int[] { 1, 5, 4, 3, 2 };
          jagged_array[1] = new int[] { 67, 34, 11 };
         jagged_array[2] = new int[] { 44, 22, 66, 10 };
        jagged_array[3] = new int[] { 99, 22, 44, 11, 55
};
jagged_array[4] = new int[] { 55, 22, 77, 44, 11, 55, 66
};
         for (int i = 0; i < 5; i++)
            {
                    Array.Sort(jagged_array[i]);
                Console.WriteLine("After Sorting [" + i
                + "] th array");
          for (int j = 0; j <jagged_array[i].Length; j++)
                    {

                          Console.WriteLine(jagged_array
                          [i][j]);
                    }
            }
        }
```

```
    }
}
```

O/P:-


C:\Windows\system32\cmd.exe
After Sorting [0] th array
1
2
3
4
5
After Sorting [1] th array
11
34
67
After Sorting [2] th array
10
22
44
66
After Sorting [3] th array
11
22
44
55
99
After Sorting [4] th array
11
22
44
55
55
66
77

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