Datetime Methods

```
using System;

namespace ConsoleApp17
{
    class Program
    {
        static void Main(string[] args)
        {
            DateTime sampledatetime = new DateTime(2020, 9, 25, 7, 10, 26);

            Console.WriteLine("Day:{0}", sampledatetime.Day);
            Console.WriteLine("Day:{0}", sampledatetime.Month);
            Console.WriteLine("Day:{0}", sampledatetime.Year);
            Console.WriteLine("Day:{0}", sampledatetime.Hour);
            Console.WriteLine("Day:{0}", sampledatetime.Minute);
            Console.WriteLine("Day:{0}", sampledatetime.Second);
            Console.WriteLine("Day:{0}", sampledatetime.DayOfWeek);
            Console.WriteLine("Day:{0}", sampledatetime.Ticks);
            Console.WriteLine("Day:{0}", sampledatetime.Kind);
            Console.WriteLine("Day:{0}", sampledatetime.TimeOfDay);

            DateTime day = DateTime.Now;
            Console.WriteLine("Day:{0}", day.Day);
            Console.WriteLine("Day:{0}", day.Month);
            Console.WriteLine("Day:{0}", day.Year);
            Console.WriteLine("Day:{0}", day.AddYears(2));
            Console.WriteLine("Day:{0}", day.AddMonths(2));

            Console.WriteLine();

           int result =  DateTime.Compare(sampledatetime, day);
            if(result == 0)
            {
                Console.WriteLine("Both dates are equal");

            }
            else if(result <0)
            {
                Console.WriteLine("first date is earlier");
            }
            else
            {
                Console.WriteLine("first date is later");
            }

            // Console.WriteLine("Day:{0}", day.Add(10,0,0,0));

        }
    }
}
```

String Methods

```
static void Main(string[] args)
        {
            string s1 = "hello how are you";
            // string s2 = (string)s1.Clone();

            string s2 = s1.Substring(6);
            Console.WriteLine(s2);
            string s3 = "        training         ";
            Console.WriteLine(s3.Trim());
            string s4 = "cake";

            Console.WriteLine(s4.Replace('c', 't'));

            Console.WriteLine(s1.Split('#'));

            string[] s5 = s1.Split(' ');
            foreach(string s in s5)
            {
                Console.WriteLine(s);
            }

             char[] ch = new char[10];
            s4.CopyTo(1,ch,0,2);

            Console.WriteLine(ch);

            Console.WriteLine(string.Compare(s1,s2));//s1==s2 - 0
            Console.WriteLine(string.Compare(s3, s4));//s3>s4 - 1
            Console.WriteLine(string.Compare(s2, s3));//s2<s3 - -1

            Console.WriteLine(string.Concat(s2, s3));

            Console.WriteLine(s1.ToUpper());

            Console.WriteLine(s1.Contains(s2));
            Console.WriteLine(s2.Contains(s3));


        }
```

Params

```
        public void show(params object[] val)//takes variable number of arguments
        {
            for (int i = 0; i < val.Length; i++)
            {
                Console.WriteLine(val[i]);
            }
        }
        static void Main(string[] args)
        {
            Program p1 = new Program();

            p1.show("john","ram",101,11,"abc");
        }
```

Jagged Array

```
static void Main(string[] args)
      {
         int[][] arr = new int[2][];
         arr[0] = new int[] { 11, 12, 12, 13 };
         arr[1] = new int[] { 20, 20, 30 };

         int[][] arr1 = new int[2][]
         {
            new int[] { 11, 12,  13 },
            new int[] { 20,  30 }
         };


         for (int i=0;i<arr1.Length;i++)
         {
            for(int j=0;j<arr1[i].Length;j++)
            {
               Console.Write(arr1[i][j] + " ");
            }
            Console.WriteLine();
         }

      }
```

Two Dimensional Array

```
static void Main(string[] args)
      {
         int[,] arr = new int[3, 3];
         arr[0, 1] = 10;
         arr[0, 2] = 11;
         arr[1, 1] = 12;
         arr[2, 1] = 13;


         int[,] arr1 =  { { 1,2,1},{ 2,2,2},{ 2,3,4} };//initializing at the time of declaring array

         for (int i=0;i<3;i++)
         {
            for(int j=0;j<3;j++)
            {
               Console.Write(arr1[i, j]+" ");
            }
            Console.WriteLine();
         }
      }
```