1. Create following types of arrays

   a) Integer

   b) String

   Use System.Array class to perform following operations on them

   Copy, Sort, Clear, Reverse

   Accept input from user through Console.

Solution:

```
using System;
class ArrayFun
{
   public static void Main(String[] args)
   {
      int[] arr1 = new int[5];
      int[] arr2 = new int[5];
      string[] str1 = new string[5];
      string[] str2 = new string[5];
      Console.WriteLine("Enter the integer array elements:");
      for(int i=0;i<5;i++)
      {
         arr1[i] = int.Parse(Console.ReadLine());
      }
      Array.Sort(arr1);
      Console.WriteLine("Sorted Array:");
      for(int j=0;j<5;j++)
      {
         Console.WriteLine(arr1[j]);
      }

      Array.Copy(arr1,arr2,arr1.Length);
```

```
Console.WriteLine("Copied array elements:");
for(int j=0;j<5;j++)
{
   Console.WriteLine(arr2[j]);
}
Array.Reverse(arr1);
Console.WriteLine("Reversed Array:");
for(int j=0;j<5;j++)
{
   Console.WriteLine(arr1[j]);
}
Array.Clear(arr1,1,2);
Console.WriteLine("Cleared Array:");
for(int j=0;j<5;j++)
{
   Console.WriteLine(arr1[j]);
}
Console.WriteLine("Enter the string array elements:");
for(int i=0;i<5;i++)
{
   str1[i] = Console.ReadLine();
}
Array.Sort(str1);
Console.WriteLine("Sorted Array:");
for(int j=0;j<5;j++)
{
   Console.WriteLine(str1[j]);
}

Array.Copy(str1,str2,str1.Length);
```

```
        Console.WriteLine("Copied array elements:");
        for(int j=0;j<5;j++)
        {
           Console.WriteLine(str2[j]);
        }
        Array.Reverse(str1);
        Console.WriteLine("Reversed Array:");
        for(int j=0;j<5;j++)
        {
           Console.WriteLine(str1[j]);
        }
        Array.Clear(str1,1,2);
        Console.WriteLine("Cleared Array:");
        for(int j=0;j<5;j++)
        {
           Console.WriteLine(str1[j]);
        }
    }
}
```

2. Use collection class such as ArrayList to hold more than one employee objects in Employee Management application. Display all Employee details which are stored in collection.

   Solution:

```
using System;
using System.Collections;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```
namespace day5
{
    class Employee
   {
      public int EmpId { get; set; }
      public string Name { get; set; }
      public int Salary { get; set; }

   }
   internal class ArrayListEmp
   {
      static void Main(string[] args)
      {

         ArrayList e = new ArrayList()
         {
               new Employee{EmpId=1,Name="Anu",Salary=25000},
               new Employee{EmpId=2,Name="pooja",Salary=15000},
               new Employee{EmpId=3,Name="kavya",Salary=12000},
               new Employee{EmpId=3,Name="ram",Salary=30000}
         };
         foreach (Employee i in e)
         {
            Console.WriteLine(i.EmpId + " " + i.Name + " " + i.Salary + " " +
i.EmpLoc);
```

```
            }
            Console.ReadKey();
        }
    }
}
```

3. Write a console based program to create a linked list of Employee objects using the generic class List<Employee>.Perform following operations on the list:

    a. Add a new employee

    b. Display the list of employees.

    c. Total number of employees in the list

Solution:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace day5
{
    internal class Genaric_List
    {
        static void Main()
        {
            List<string> list = new List<string>();
            list.Add("Kavya");
            list.Add("Pooja");
```

```
            list.Add("Pinky");
            list.Add("Anmol");
            for (int i = 0; i < list.Count; i++)
            {
                Console.WriteLine("List of employees" + ':' + list[i]);
            }
            Console.WriteLine("total number of employess" + ':' + list.Count);
            Console.ReadLine();
        }
    }
}
```

4. Write Custom Generic class MyStack based on assignment of previous session, with Push() and Pop() methods to store any kind of .NET Type.

   Solution:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Collections;
namespace day5
{
    internal class MyStack
    {
        static void Main()
        {
```

```
            Stack stack1 = new Stack();
            stack1.Push(1);
            stack1.Push("Kavya");
            stack1.Push(57.8);
            stack1.Push("Pooja");
            foreach (Object o in stack1)
            {
               Console.WriteLine("different types of data" + ":" + o);
            }
            stack1.Pop();
            foreach (Object o in stack1)
            {
               Console.WriteLine("after pop operation" + ":" + o);
            }

            Console.ReadLine();
        }
    }
}
```