Assignment 5

1. Create following types ofarrays
   1. Integer
   2. String

Use System.Arrayclass to perform following operations on them

Copy, Sort, Clear, Reverse

Program

using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

namespaceSystemArray\_Program

{

internalclassProgram

{

staticvoid Main(string[] args)

{

Console.WriteLine("Enter size of an array");

intsize\_of\_arr = int.Parse(Console.ReadLine());

int[] array = newint[size\_of\_arr];

string[] string\_array = newstring[size\_of\_arr];

Console.WriteLine("Enter int type element in array\n");

for (int i = 0; i <size\_of\_arr; i++)

{

array[i] = int.Parse(Console.ReadLine());

}

Console.WriteLine("\nOutput before applying any method \n");

foreach (intvalin array)

{

Console.Write(val + " ");

}

Console.WriteLine("\n");

int[] array2 = newint[size\_of\_arr];

Array.Copy(array, array2, size\_of\_arr);//Copy() Method

Console.WriteLine("After copying one array in array2\n");

foreach (intvalin array2)

{

Console.Write(val + " ");

}

Console.WriteLine("\nafter clearing array2\n");

Array.Clear(array2, 0, size\_of\_arr);//clear method to clear array2

foreach(intvalin array2)

{

Console.Write(val + " ");

}

Console.WriteLine();

Array.Reverse(array);//After reversing array

foreach (intvalin array)

{

Console.Write(val + " ");

}

Console.WriteLine("\n");

Array.Sort(array);//sorting array

Console.WriteLine("\nAfter Sorting array\n");

foreach (intvalin array)

{

Console.Write(val + " ");

}

Console.WriteLine("\nInsert string in string array\n");

for (int i = 0; i <size\_of\_arr; i++)

{

string\_array[i] = Console.ReadLine();

}

Console.WriteLine("Output of String\_array before appplying any method\n");

foreach (stringeleinstring\_array)

{

Console.Write(ele + " ");

}

Console.WriteLine("\n");

Array.Reverse(string\_array);

Console.WriteLine("After Reversing string array\n");

foreach (stringeleinstring\_array)

{

Console.Write(ele + " ");

}

Console.WriteLine("\n");

Array.Sort(string\_array);

Console.WriteLine("\nAfter sorting string\_array\n");

foreach (stringeleinstring\_array)

{

Console.Write(ele + " ");

}

Console.WriteLine("\n");

string[] array\_string2 = newstring[size\_of\_arr];

Array.Copy(string\_array, array\_string2, size\_of\_arr);

Console.WriteLine("\nAfter copying array\_string into array\_string2\n");

foreach(stringelein array\_string2)

{

Console.Write(ele + " ");

}

Console.WriteLine("\nafter clearing\n");

Array.Clear(string\_array, 0, size\_of\_arr);

foreach (stringeleinstring\_array)

{

Console.Write(ele + " ");

}

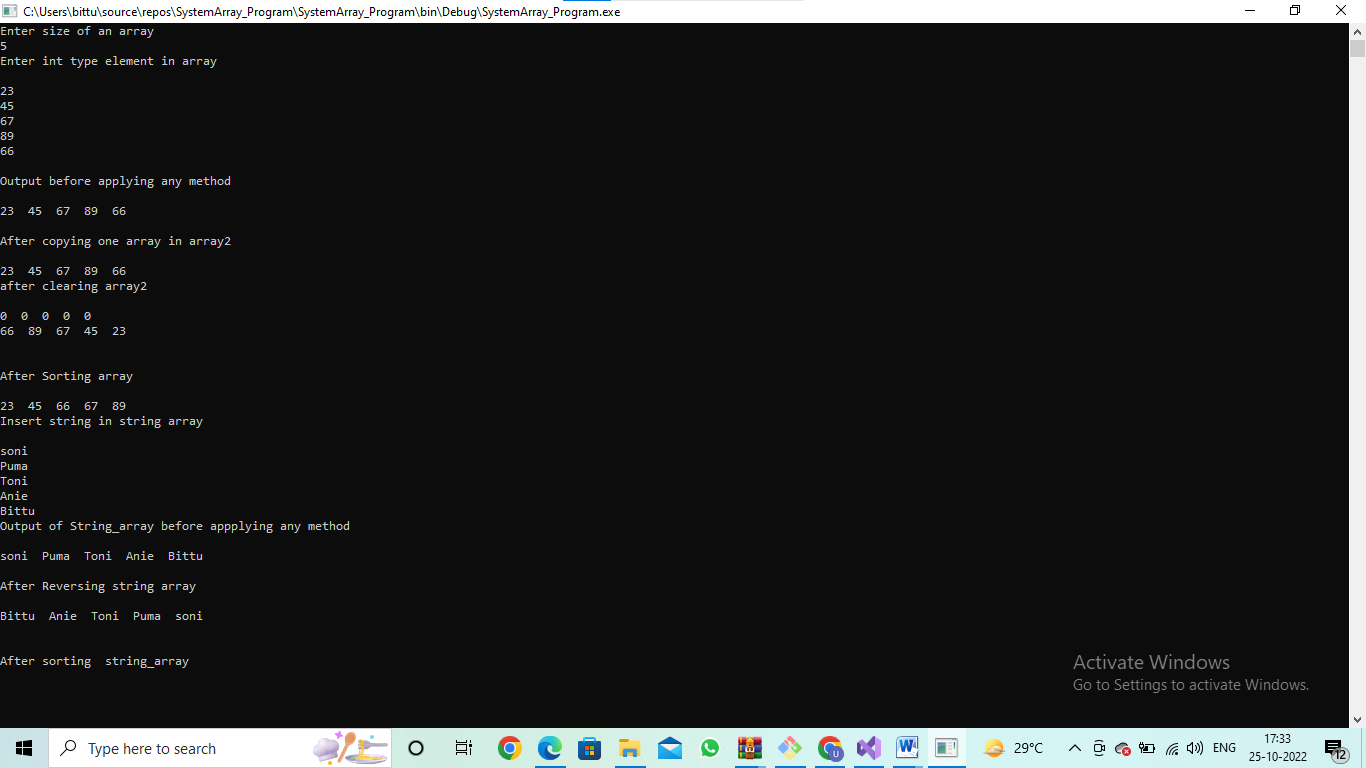
Console.ReadLine();

}

}

}

OUTPUT



Accept input from user through Console.

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

Program

using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Collections;

namespace ArrayList1

{

publicclassEmployee

{

string name;

intemp\_id;

double salary;

publicEmployee(string name, intemp\_id, double salary)

{

this.name = name;

this.emp\_id = emp\_id;

this.salary = salary;

}

publicoverridestringToString()

{

return

String.Format("{0,-10} emp\_id : {1,6} salary : {2}",name,emp\_id,salary);

}

}

internalclassProgram

{

staticvoid Main(string[] args)

{

ArrayListemp = newArrayList();

Console.WriteLine("Add element to the list");

emp.Add(new Employee("Dipanshu", 012, 23450.89));

emp.Add(new Employee("Vidya", 034, 4500.78));

emp.Add(new Employee("Sonakshi", 098, 34560.89));

emp.Add(new Employee("Samiksha", 078, 34000.89));

Console.WriteLine("Employee Details\n");

foreach(Employee emplinemp)

{

Console.WriteLine(" " + empl);

}

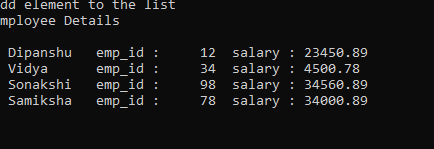
Console.ReadLine();

}

}

}

Output



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

1. Add a newemployee
2. Display the list ofemployees.
3. Total number of employees in thelist

Program

using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

namespace Assignment5quet3LinkedList

{

internalclassProgram

{

staticvoid Main(string[] args)

{

LinkedList<string> employee = newLinkedList<string>();

//Adding a new employee

employee.AddFirst("Sandhya");

employee.AddFirst("Anjali");

employee.AddFirst("Radha");

Console.WriteLine("Display the list of an employee\n");

foreach(stringempin employee)

{

Console.WriteLine(emp+ "\n");

}

Console.WriteLine("Total number of employee in the list : " + employee.Count());

Console.WriteLine("\n");

Console.WriteLine("\n");

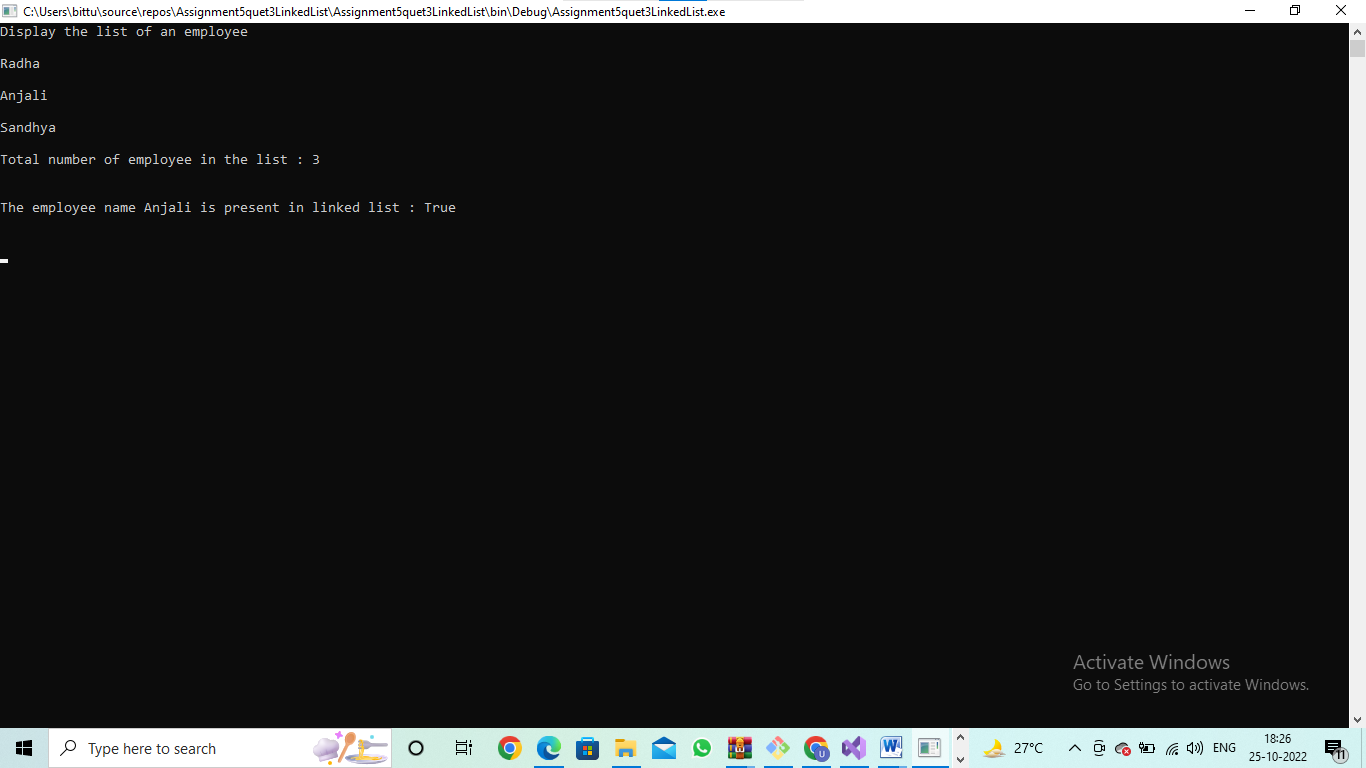
Console.ReadLine();

}

}

}

OUTPUT



1. Write Custom Generic class MyStackbased on assignment of previous session,with

Push()and Pop()methods to store any kind of .NET Type.

using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Collections;

usingstaticSystem.Console;

namespaceMyStackStoreAnyType

{

internalclassProgram

{

staticvoid Main(string[] args)

{

Stack st = newStack();

st.Push("Shubham");

st.Push("banana");

st.Push(980.89);

st.Push(45);

st.Push('a');

st.Push(345.67f);

st.Push(234578.90D);

foreach(objectobjinst)

{

WriteLine(obj);

}

WriteLine("\n");

WriteLine("Popping the element from stack {0}",st.Pop());

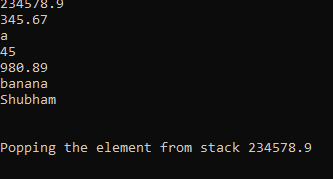
ReadLine();

}

}

}

Output



## Now try these to get a completegrip…

1. In the assignment 3 above, add a functionality to search an employee on name in theList<>.

Program

using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

namespace Assignment5quet3LinkedList

{

internalclassProgram

{

staticvoid Main(string[] args)

{

LinkedList<string> employee = newLinkedList<string>();

//Adding a new employee

employee.AddFirst("Sandhya");

employee.AddFirst("Anjali");

employee.AddFirst("Radha");

Console.WriteLine("Display the list of an employee\n");

foreach(stringempin employee)

{

Console.WriteLine(emp+ "\n");

}

Console.WriteLine("Total number of employee in the list : " + employee.Count());

Console.WriteLine("\n");

//Searching employee name is it present or not Assignment 5 quetion 5

Console.WriteLine("The employee name Anjali is present in linked list : " +

employee.Contains("Anjali"));

Console.WriteLine("\n");

Console.ReadLine();

}

}

}

//question 6 or 7

//using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Collections;

namespace Assignment5quest6

{

publicclassPlayer

{

publicstringplayer\_name="Mohit Kumar";

public Stringrun\_score="40 run";

}

publicclassTeam

{

publicstring[] players = newstring[20];

}

internalclassProgram

{

staticvoid Main(string[] args)

{

Player India = newPlayer();

Team team = newTeam();

team.players[0] = India.player\_name;

team.players[1] = India.run\_score;

foreach(string player inteam.players)

{

Console.WriteLine(player);

}

Console.ReadLine();

}

}

}