**Object**: . Using Class created in Q1create an array of length 10 of integers and values ranging from 1 to 50 may be placed in that array. Perform the following tasks

1. Find all pair of elements whose sum is 25.
2. Find the number of elements of A which are even, and the number of elements of A which are odd.
3. Write a procedure which finds the average of the value of A.
4. Write a procedure which inserts an element in an array at a given index. Take the value to insert and also the index from the user
5. Write a procedure which looks for 2 numbers 45 and 14 in an array and delete them if they are present in the array.

***Solution***

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace lab\_1\_task\_2

{

class Array

{

int[] a = new int[10];

int[] schk = new int[10];

public void Ask()

{

Console.WriteLine("Fill number data!");

for (int i = 0; i < a.Length; i++)

{

a[i] = Convert.ToInt32(Console.ReadLine());

}

}

public void sumchk()

{

for (int i = 0; i < a.Length; i++)

{

if

(a[i] <= 25)

{

schk[i] = a[i];

}

}

//for (int i = 0; i < schk.Length; i++)

//{

// Console.WriteLine(schk[i]);

//}

//Console.ReadLine();

for (int i = 0; i < schk.Length; i++)

{

for (int j = i + 1; j < schk.Length; j++)

{

if

(schk[i] + schk[j] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3}", i, schk[i], j, schk[j]);

}

else

{

for (int k = i + 2; k < schk.Length; k++)

{

if

(schk[i] + schk[j] + schk[k] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

}

else

{

for (int l = i + 3; l < schk.Length; l++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

}

else

{

for (int z = i + 4; z < schk.Length; z++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

}

else

{

for (int x = i + 5; x < schk.Length; x++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] + schk[x] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

Console.WriteLine("6:{0} , {1}", x, schk[x]);

}

else

{

for (int c = i + 6; c < schk.Length; c++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] + schk[x] + schk[c] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

Console.WriteLine("6:{0} , {1}", x, schk[x]);

Console.WriteLine("7:{0} , {1}", c, schk[c]);

}

else

{

for (int v = i + 7; v < schk.Length; v++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] + schk[x] + schk[c] + schk[v] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

Console.WriteLine("6:{0} , {1}", x, schk[x]);

Console.WriteLine("7:{0} , {1}", c, schk[c]);

Console.WriteLine("8:{0} , {1}", v, schk[v]);

}

else

{

for (int b = i + 8; b < schk.Length; b++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] + schk[x] + schk[c] + schk[v] + schk[b] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

Console.WriteLine("6:{0} , {1}", x, schk[x]);

Console.WriteLine("7:{0} , {1}", c, schk[c]);

Console.WriteLine("8:{0} , {1}", v, schk[v]);

Console.WriteLine("9:{0} , {1}", b, schk[b]);

}

else

{

for (int n = i + 9; n < schk.Length; n++)

{

if

(schk[i] + schk[j] + schk[k] + schk[l] + schk[z] + schk[x] + schk[c] + schk[v] + schk[b] + schk[n] == 25)

{

Console.WriteLine("Index number & Element\n1:{0} , {1}\n2:{2} , {3},\n3:{4} , {5}", i, schk[i], j, schk[j], k, schk[k]);

Console.WriteLine("4:{0} , {1}", l, schk[l]);

Console.WriteLine("5:{0} , {1}", z, schk[z]);

Console.WriteLine("6:{0} , {1}", x, schk[x]);

Console.WriteLine("7:{0} , {1}", c, schk[c]);

Console.WriteLine("8:{0} , {1}", v, schk[v]);

Console.WriteLine("9:{0} , {1}", b, schk[b]);

Console.WriteLine("10:{0} , {1}", n, schk[n]);

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

}

public void ShowElements()

{

Console.WriteLine("List of filled data!");

for (int i = 0; i < a.Length; i++)

{

Console.WriteLine(a[i]);

}

}

public void showEven()

{

for (int i = 0; i < a.Length; i++)

{

if

(a[i] % 2 == 0)

{

Console.WriteLine(a[i]);

}

}

}

public void ShowODD()

{

for (int i = 0; i < a.Length; i++)

{

if

(a[i] % 2 != 0)

{

Console.WriteLine(a[i]);

}

}

}

public void Average()

{

double q = 0;

for (int i = 0; i < a.Length; i++)

{

q = q + a[i];

}

Console.WriteLine("Average:");

Console.WriteLine(q / a.Length);

}

public void Insert(int index, int value)

{

if

(index>a.Length)

{

Console.WriteLine("Index out of bound");

}

else

{

for (int i = index; i < a.Length - 1; i++)

{

if

(i+1<a.Length)

{

a[i + 1] = a[i];

}

}

a[index] = value;

}

for (int i = 0; i < a.Length; i++)

{

Console.WriteLine(a[i]);

}

}

public void SearchDelete(int n1, int n2)

{

for (int i = 0; i < a.Length; i++)

{

if

(a[i]==n1)

{

for (int j = i; j < a.Length; j++)

{

if (j + 1 < a.Length)

{

a[j] = a[j + 1];

}

else

a[j] = 0;

}

}

}

for (int i = 0; i < a.Length; i++)

{

if

(a[i] == n2)

{

for (int j = i; j < a.Length; j++)

{

if (j + 1 < a.Length)

{

a[j] = a[j + 1];

}

else

a[j] = 0;

}

}

}

for (int i = 0; i < a.Length; i++)

{

Console.WriteLine(a[i]);

}

}

}

class Program

{

static void Main(string[] args)

{

Array A = new Array();

A.Ask();

Console.WriteLine("Select Correct number according to correct choice");

Console.WriteLine("1:Sum Check to 25?");

Console.WriteLine("2:Even & Odd Check?");

Console.WriteLine("3:Average Check?");

Console.WriteLine("4:value Insert?");

Console.WriteLine("5:Value Delete?");

char choice = Convert.ToChar(Console.ReadLine());

switch (choice)

{

case'1':

A.sumchk();

break;

case'2':

Console.WriteLine("Even numbers are:");

A.showEven();

Console.WriteLine("Odd Numbers are:");

A.ShowODD();

break;

case'3':

A.Average();

break;

case'4':

Console.Clear();

Console.WriteLine("index value ?");

int i = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Value ?");

int v = Convert.ToInt32(Console.ReadLine());

A.Insert(i, v);

break;

case'5':

Console.WriteLine("give 2 value?");

int n1 = Convert.ToInt32(Console.ReadLine());

int n2 = Convert.ToInt32(Console.ReadLine());

A.SearchDelete(n1, n2);

break;

default:

Console.WriteLine("Invalid Selection!");

break;

}

}

}

}

**OUTPUT:**

