(Q7)Answer;

using System;

class Program

{

static void Main()

{

Console.Write("Enter the size of the arrays: ");

int size = int.Parse(Console.ReadLine());

int[] array1 = new int[size];

int[] array2 = new int[size];

// array 1

Console.WriteLine("Enter values for Array 1 >");

for (int i = 0; i < size; i++)

{

Console.Write($"Enter value for index {i}: ");

array1[i] = int.Parse(Console.ReadLine());

}

// array2

Console.WriteLine("\nEnter values for Array 2 >");

for (int i = 0; i < size; i++)

{

Console.Write($"Enter value for index {i}: ");

array2[i] = int.Parse(Console.ReadLine());

}

// ScSum

int scalarSum = 0;

for (int i = 0; i < size; i++)

{

scalarSum += array1[i];

}

Console.WriteLine($"Scalar Sum: {scalarSum}");

// VecSum

int[] vectorSum = new int[size];

for (int i = 0; i < size; i++)

{

vectorSum[i] = array1[i] + array2[i];

}

Console.WriteLine("Vector Sum:");

DisplayArray(vectorSum);

// VecPrd

int[] vectorProduct = new int[size];

for (int i = 0; i < size; i++)

{

vectorProduct[i] = array1[i] \* array2[i];

}

Console.WriteLine("Vector Product:");

DisplayArray(vectorProduct);

// ScPrd

int scalarProduct = 1;

for (int i = 0; i < size; i++)

{

scalarProduct \*= array1[i] \* array2[i];

}

Console.WriteLine($"Scalar Product: {scalarProduct}");

}

static void DisplayArray(int[] arr)

{

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

{

Console.Write(arr[i] + " ");

}

Console.WriteLine();

}

}

**LAB 07**

(Q8)Answer;

namespace AnimalApp

{

public class Animal

{

public void DisplayInfo()

{

Console.WriteLine("I am an animal");

}

}

}

using System;

namespace AnimalApp

{

public class Dog : Animal

{

public void DisplayLegs()

{

Console.WriteLine("I have four legs");

}

}

}

using System;

namespace AnimalApp

{

class Program

{

static void Main(string[] args)

{

Animal animal = new Animal();

Dog dog = new Dog();

animal.DisplayInfo(); // Output: I am an animal

dog.DisplayInfo(); // Output: I am an animal

dog.DisplayLegs(); // Output: I have four legs

Console.ReadLine(); // To prevent the console from closing immediately

}

}

}