Lab 07

27003

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Question 07

using System;

namespace ArrayOperations

{

class Program

{

static void Main(string[] args)

{

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

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

int[] array1 = new int[size];

int[] array2 = new int[size];

Console.WriteLine($"Enter {size} elements for Array 1:");

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

{

array1[i] = Convert.ToInt32(Console.ReadLine());

}

Console.WriteLine($"Enter {size} elements for Array 2:");

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

{

array2[i] = Convert.ToInt32(Console.ReadLine());

}

// Scalar Sum

int scalarSum = 0;

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

{

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

}

Console.WriteLine("Scalar Sum: " + scalarSum);

// Vector Sum

int[] vectorSumArray = new int[size];

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

{

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

}

Console.WriteLine("Vector Sum:");

DisplayArray(vectorSumArray);

// Vector Product

int[] vectorProductArray = new int[size];

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

{

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

}

Console.WriteLine("Vector Product:");

DisplayArray(vectorProductArray);

// Scalar Product

int scalarProductSum = 0;

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

{

scalarProductSum += array1[i] \* array2[i];

}

Console.WriteLine("Scalar Product Sum: " + scalarProductSum);

}

static void DisplayArray(int[] arr)

{

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

{

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

}

Console.WriteLine();

}

}

}

Question 08

using System;

namespace AnimalApp

{

public class Animal

{

public virtual void Display()

{

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

}

}

public class Dog : Animal

{

public override void Display()

{

base.Display();

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

}

}

class Program

{

static void Main(string[] args)

{

Animal animal = new Dog();

animal.Display();

}

}

}