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**Lab Sheet 07.**

**Question 01.**

internal class Program

{

static void Main(string[] args)

{

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

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

int[] array1 = new int[size];

int[] array2 = new int[size];

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

{

Console.WriteLine("Enter element {0} of array1: ", i + 1);

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

Console.WriteLine("Enter element {0} of array2: ", i + 1);

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

}

int scalar\_sum = 0;

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

{

scalar\_sum += array1[i] + array2[i];

}

int[] vector\_sum = new int[size];

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

{

vector\_sum[i] = array1[i] + array2[i];

}

int[] vector\_product = new int[size];

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

{

vector\_product[i] = array1[i] \* array2[i];

}

int scalar\_product = 0;

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

{

scalar\_product += vector\_product[i];

}

Console.WriteLine("Scalar sum: {0}\n", scalar\_sum);

Console.WriteLine("Vector sum: ");

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

{

Console.Write("{0} ", vector\_sum[i]);

}

Console.WriteLine("\nVector product: ");

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

{

Console.Write("{0} ", vector\_product[i]);

}

Console.WriteLine("\nScalar product: {0}\n", scalar\_product);

}

}

**Question 02.**

public class Animal

{

public void IAmAnimal()

{

Console.WriteLine("I am Animal");

}

}

public class Dog : Animal

{

public void IHaveFourLegs()

{

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

}

}

internal class Program

{

static void Main(string[] args)

{

Dog dog = new Dog();

dog.IAmAnimal();

dog.IHaveFourLegs();

Console.ReadKey();

}

}