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**C# LAB 05**

Q.03

1.

using System;

public class CalculateValues

{

public int Addition(int number1, int number2)

{

return number1 + number2;

}

public int Subtraction(int number1, int number2)

{

return number1 - number2;

}

public int Multiplication(int number1, int number2)

{

return number1 \* number2;

}

public int Division(int number1, int number2)

{

return number1 / number2;

}

}

public class Program

{

public static void Main(string[] args)

{

int number1, number2, choice, result;

Console.WriteLine("Enter the first number: ");

number1 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Enter the second number: ");

number2 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Select the arithmetic operation:");

Console.WriteLine("1. Addition");

Console.WriteLine("2. Subtraction");

Console.WriteLine("3. Multiplication");

Console.WriteLine("4. Division");

choice = Convert.ToInt32(Console.ReadLine());

var calculateValues = new CalculateValues();

switch (choice)

{

case 1:

result = calculateValues.Addition(number1, number2);

break;

case 2:

result = calculateValues.Subtraction(number1, number2);

break;

case 3:

result = calculateValues.Multiplication(number1, number2);

break;

case 4:

result = calculateValues.Division(number1, number2);

break;

default:

result = 0;

break;

}

Console.WriteLine("The result is {0}.", result);

}

}

Question 04

1.

public class MyClass

{

private void sayHello()

{

Console.WriteLine("Hello, world!");

}

}

public class Program

{

public static void Main(string[] args)

{

var myClass = new MyClass();

}

}

public class MyClass

{

public void sayHello()

{

Console.WriteLine("Hello, world!");

}

}

public class Program

{

public static void Main(string[] args)

{

var myClass = new MyClass();

myClass.sayHello();

}

}

Question 05

1.

using System;

public class ArrayOperations

{

public int[] CreateArray(int size)

{

int[] array = new int[size];

// Prompt the user to enter values for the array.

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

{

Console.WriteLine("Enter a value for the array at index {0}: ", i);

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

}

return array;

}

public int FindMinimumValue(int[] array)

{

int minValue = array[0];

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

{

if (array[i] < minValue)

{

minValue = array[i];

}

}

return minValue;

}

public int FindMaximumValue(int[] array)

{

int maxValue = array[0];

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

{

if (array[i] > maxValue)

{

maxValue = array[i];

}

}

return maxValue;

}

public double CalculateAverageValue(int[] array)

{

int sum = 0;

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

{

sum += array[i];

}

return sum / array.Length;

}

public void ReverseArray(int[] array)

{

int[] reversedArray = new int[array.Length];

for (int i = array.Length - 1; i >= 0; i--)

{

reversedArray[array.Length - 1 - i] = array[i];

}

array = reversedArray;

}

}

public class Program

{

public static void Main(string[] args)

{

// Declare variables to store the array and the results of the operations.

int[] array;

int minValue, maxValue;

double averageValue;

// Create an array of size 10.

array = ArrayOperations.CreateArray(10);

// Find the minimum, maximum, and average values of the array.

minValue = ArrayOperations.FindMinimumValue(array);

maxValue = ArrayOperations.FindMaximumValue(array);

averageValue = ArrayOperations.CalculateAverageValue(array);

// Reverse the order of the array.

ArrayOperations.ReverseArray(array);

// Display the results of the operations.

Console.WriteLine("The minimum value is {0}.", minValue);

Console.WriteLine("The maximum value is {0}.", maxValue);

Console.WriteLine("The average value is {0}.", averageValue);

Console.WriteLine("The reversed array is: ");

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

{

Console.WriteLine("{0}", array[i]);

}

}

}