Lab 06

Q1.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q1

{

internal class Program

{

static void Main(string[] args)

{

Console.Write("Enter Number1: ");

string numb1 = Console.ReadLine();

Console.Write("Enter Number2: ");

string numb2 = Console.ReadLine();

if(double.TryParse(numb1, out double number1) && double.TryParse(numb2, out double number2))

{

Console.WriteLine("1.Addition");

Console.WriteLine("2.Subtraction");

Console.WriteLine("3.Multiplication");

Console.WriteLine("4.Division");

Console.Write("Enter Your Choice: ");

if (int.TryParse(Console.ReadLine(), out int choice) && choice >= 1 && choice <= 4 )

{

double result = 0;

switch(choice)

{

case 1:

result = number1 + number2;

break;

case 2:

result = number1 - number2;

break;

case 3:

result = number1 / number2;

break;

case 4:

if (number2 != 0)

result = number1 / number2;

else

{

Console.WriteLine("Error");

break;

}

break;

}

if (choice >= 1 && choice <= 4 && choice != 4)

Console.WriteLine($"Result: {result}");

}

else

{

Console.WriteLine("Invalid choice! Please enter a number between 1 and 4.");

}

}

else

{

Console.WriteLine("Invalid input! Please enter valid numeric values for the two numbers.");

}

Console.ReadKey();

}

}

}

Q2.

using Q2;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q2

{

namespace Q2

{

class HelloWorld

{

private void sayHello()

{

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

Console.ReadKey();

}

}

class Program

{

static void Main(string[] args)

{

HelloWorld helloWorld = new HelloWorld();

Console.ReadKey();

}

}

}

}

Q3.

using Q3;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Q3

{

static class ArrayHelper

{

public static int FindMinimum(int[] arr)

{

int min = arr[0];

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

{

if (arr[i] < min)

{

min = arr[i];

}

}

return min;

}

public static int FindMaximum(int[] arr)

{

int max = arr[0];

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

{

if (arr[i] > max)

{

max = arr[i];

}

}

return max;

}

public static double FindAverage(int[] arr)

{

int sum = 0;

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

{

sum += arr[i];

}

return (double)sum / arr.Length;

}

public static int[] ReverseArray(int[] arr)

{

int[] reversedArr = new int[arr.Length];

int j = arr.Length - 1;

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

{

reversedArr[j] = arr[i];

j--;

}

return reversedArr;

}

}

class Program

{

static void Main(string[] args)

{

int[] arr = new int[10];

Console.WriteLine("Enter 10 integer values for the array:");

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

{

if (int.TryParse(Console.ReadLine(), out int value))

{

arr[i] = value;

}

else

{

Console.WriteLine("Invalid input! Please enter a valid integer value.");

return;

}

}

int min = ArrayHelper.FindMinimum(arr);

Console.WriteLine($"Minimum value: {min}");

int max = ArrayHelper.FindMaximum(arr);

Console.WriteLine($"Maximum value: {max}");

double average = ArrayHelper.FindAverage(arr);

Console.WriteLine($"Average value: {average}");

int[] reversedArr = ArrayHelper.ReverseArray(arr);

Console.WriteLine("Reversed array:");

foreach (int value in reversedArr)

{

Console.Write($"{value} ");

}

Console.ReadKey();

}

}

}