Lab 06

27003

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Question 03

using System;

namespace CalculatorApp

{

class CalculateValues

{

public double Addition(double num1, double num2)

{

return num1 + num2;

}

public double Subtraction(double num1, double num2)

{

return num1 - num2;

}

public double Multiplication(double num1, double num2)

{

return num1 \* num2;

}

public double Division(double num1, double num2)

{

if (num2 == 0)

{

throw new DivideByZeroException("Cannot divide by zero.");

}

return num1 / num2;

}

}

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter 1 for Addition");

Console.WriteLine("Enter 2 for Subtraction");

Console.WriteLine("Enter 3 for Multiplication");

Console.WriteLine("Enter 4 for Division");

Console.WriteLine("\nEnter Your Choice: ");

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

Console.WriteLine("Enter Number 1: ");

double num1 = Convert.ToDouble(Console.ReadLine());

Console.WriteLine("Enter Number 2: ");

double num2 = Convert.ToDouble(Console.ReadLine());

CalculateValues calculator = new CalculateValues();

double result = 0;

switch (choice)

{

case 1:

result = calculator.Addition(num1, num2);

break;

case 2:

result = calculator.Subtraction(num1, num2);

break;

case 3:

result = calculator.Multiplication(num1, num2);

break;

case 4:

result = calculator.Division(num1, num2);

break;

default:

Console.WriteLine("Invalid choice.");

return;

}

Console.WriteLine($"Your Answer is: {result}");

}

}

}

Question 04

// File: Greeting.cs

using System;

namespace ConsoleApplication

{

public class Greeting

{

private void SayHello()

{

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

}

}

}

// File: Program.cs

using System;

namespace ConsoleApplication

{

class Program

{

static void Main(string[] args)

{

Greeting greetingObj = new Greeting();

greetingObj.SayHello(); // This will result in a compilation error.

}

}

}

// File: Greeting.cs

using System;

namespace ConsoleApplication

{

public class Greeting

{

public void SayHello()

{

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

}

}

}

// File: Program.cs

using System;

namespace ConsoleApplication

{

class Program

{

static void Main(string[] args)

{

Greeting greetingObj = new Greeting();

greetingObj.SayHello(); // This will now work without any error.

}

}

}

Question 05

using System;

namespace ArrayOperations

{

public class ArrayCalculator

{

public void FindArrayStats(int[] arr)

{

int min = arr[0];

int max = arr[0];

int sum = 0;

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

{

if (arr[i] < min)

min = arr[i];

if (arr[i] > max)

max = arr[i];

sum += arr[i];

}

double average = (double)sum / arr.Length;

Console.WriteLine("Minimum value: " + min);

Console.WriteLine("Maximum value: " + max);

Console.WriteLine("Average value: " + average);

// Reverse order of values

Console.WriteLine("Reverse order of values:");

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

{

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

}

Console.WriteLine();

}

}

}

using System;

namespace ArrayOperations

{

class Program

{

static void Main(string[] args)

{

int[] myArray = new int[10];

Console.WriteLine("Enter 10 elements:");

for (int i = 0; i < 10; i++)

{

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

}

ArrayCalculator calculator = new ArrayCalculator();

calculator.FindArrayStats(myArray);

}

}

}