

## LAB 05

### LAB 5.1:

```
class Program
{
    static void Main(string[] args)
    {
        CalculateValues calculator = new
CalculateValues();

        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.Write("Enter your choice: ");
        int choice = int.Parse(Console.ReadLine());

        Console.Write("Enter number 1: ");
        double num1 = double.Parse(Console.ReadLine());

        Console.Write("Enter number 2: ");
        double num2 = double.Parse(Console.ReadLine());

        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}");
    }
}
```

### LAB 5.2:

```
using System;

namespace MyNamespace
{
    public class HelloWorld
    {
        private void SayHello()
        {
            Console.WriteLine("Hello, World!");
        }
    }
}
```

```
using System;

namespace MyNamespace
{
    class Program
    {
        static void Main(string[] args)
        {
            HelloWorld helloObj = new HelloWorld();
        }
    }
}
```

### LAB5.3:

```
using System;

namespace ArithmeticOperationsCalculator
{
    class CalculateValues
    {
        public double Addition(double num1, double num2)
        {
            return num1 + num2;
        }

        public double Subtraction(double num1, double
num2)
        {
            return num1 - num2;
        }
    }
}
```

```

num2)    public double Multiplication(double num1, double
        {
            return num1 * num2;
        }

        public double Division(double num1, double num2)
        {
            if (num2 == 0)
            {
                Console.WriteLine("Cannot divide by
zero.");
                return double.NaN;
            }
            return num1 / num2;
        }
    }

```

```

namespace ArrayOperationsNamespace
{
    public class ArrayOperations
    {
        public int FindMinimum(int[] array)
        {
            int min = array[0];
            for (int i = 1; i < array.Length; i++)
            {
                if (array[i] < min)
                {
                    min = array[i];
                }
            }
            return min;
        }

        public int FindMaximum(int[] array)
        {
            int max = array[0];
            for (int i = 1; i < array.Length; i++)
            {
                if (array[i] > max)
                {
                    max = array[i];
                }
            }
            return max;
        }
    }
}

```

```

        public double FindAverage(int[] array)
        {
            double sum = 0;
            for (int i = 0; i < array.Length; i++)
            {
                sum += array[i];
            }
            return sum / array.Length;
        }

        public int[] ReverseArray(int[] array)
        {
            int[] reversedArray = new
int[array.Length];
            int j = array.Length - 1;
            for (int i = 0; i < array.Length; i++)
            {
                reversedArray[i] = array[j];
                j--;
            }
            return reversedArray;
        }
    }
}

```

```

using System;

namespace ArrayOperationsNamespace
{
    class Program
    {
        static void Main(string[] args)
        {
            int[] myArray = new int[10];

            Console.WriteLine("Enter 10 elements
for the array:");
            for (int i = 0; i < myArray.Length;
i++)
            {
                Console.Write($"Element {i + 1}:
");
                myArray[i] =
int.Parse(Console.ReadLine());
            }
        }
    }
}

```

```

        ArrayOperations arrayOps = new
ArrayOperations();

        int minValue =
arrayOps.FindMinimum(myArray);
        int maxValue =
arrayOps.FindMaximum(myArray);
        double averageValue =
arrayOps.FindAverage(myArray);
        int[] reversedArray =
arrayOps.ReverseArray(myArray);

        Console.WriteLine($"Minimum value:
{minValue}");
        Console.WriteLine($"Maximum value:
{maxValue}");
        Console.WriteLine($"Average value:
{averageValue}");
        Console.WriteLine("Reversed order of
values:");
        foreach (int element in reversedArray)
        {
            Console.Write($"{element} ");
        }
        Console.WriteLine();
    }
}

```