

1.

```
static void Main(string[] args)
{

    Console.WriteLine("Enter name:");
    string nm = Console.ReadLine();

    Console.WriteLine ("Enter your batch:");
    string batch = Console.ReadLine();

    Console.WriteLine ("\nYour name: " + nm);
    Console.WriteLine ("Your batch: " + batch);

    Console.ReadLine();

}
```
2.

```
static void Main(string[] args)
{

    Console.WriteLine ("Enter the radius of the circle:");
    double r = Convert.ToDouble( Console.ReadLine());

    double area= Math.PI * Math.Pow(r,2);

    Console.WriteLine ("your answer is " + area);

    Console.ReadLine();

}
```
3.

```
static void Main(string[] args)
{

    Console.WriteLine("Enter first number:");
    int number1=Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("Enter  second number:");
    int number2=Convert.ToInt32(Console.ReadLine());

    int sum = (number1+number2);

    Console.WriteLine("Your answer is " + sum);

    Console.ReadLine();

}
```

```

4. static void Main(string[] args)
{

    Console.WriteLine("Enter your salary amount");
    int salary= Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("Enter your tax rate");
    double tax= Convert.ToDouble(Console.ReadLine());

    double taxam = (salary / tax);
    double newsalary = (salary - taxam);

    Console.WriteLine("Your new salary " + newsalary);

    Console.ReadLine();
}

```

- **C# LAB 02**

```

1. static void Main(string[] args)
{

    Console.WriteLine("Enter the first number:");
    int number1=Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("Enter the second number:");
    int number2=Convert.ToInt32(Console.ReadLine());

    int sum = (number1+number2);

    Console.WriteLine("Your answer is " + sum);

    Console.ReadLine();
}

```

```

2. static void Main(string[] args)
{

    Console.WriteLine("Enter your first number");
    double number1= Convert.ToDouble(Console.ReadLine());
    Console.WriteLine("Enter your second number");
    double number2= Convert.ToDouble(Console.ReadLine());

    // Calculate the sum
    double addition = number1 + number2;

```

```

Console.WriteLine("Sum: " + sum);

// Calculate the subtraction
double subtraction = number1 - number2;
Console.WriteLine("Subtraction: " + subtraction);

// Calculate the multiplication
double multiplication = number1 * number2;
Console.WriteLine("Multiplication: " + multiplication);

// Check for division by zero
if (number2 != 0)
{
    // Calculate the division
    double division = number1 / number2 ;
    Console.WriteLine("Division: " + division);
}
else
{
    Console.WriteLine("Division by zero is not allowed.");
}

```

```

Console.ReadLine();
}

```

```

3. static void Main(string[] args)
{

```

```

    Console.WriteLine("Please enter the radius of the circle:");
    double r = Convert.ToDouble(Console.ReadLine());

    double area = Math.PI * Math.Pow(r, 2);

    double circumference = 2 * Math.PI * r;

    Console.WriteLine("Your circle area is " + area);
    Console.WriteLine("Your circle circumference is " + circumference);

    Console.ReadLine();
}

```

```

4. static void Main(string[] args)
{

```

```

    Console.WriteLine("Enter your number");
    int number=Convert.ToInt32(Console.ReadLine());

    if ( IsEven(number))
    {
        Console.WriteLine(number + " is an even number");
    }
}

```

```

    else
    {
        Console.WriteLine(number + " is an odd number");
    }
    Console.ReadLine();
}

```

```

static bool IsEven(int number)
{
    return number % 2 == 0;
}

```

```

5. static void Main(string[] args)
{
    const int totalInputs = 10;

    Console.WriteLine("Enter " + totalInputs + " numbers:");

    for (int i = 1; i <= totalInputs; i++)
    {
        Console.Write("Number " + i + ": ");
        string input = Console.ReadLine();

        if (int.TryParse(input, out int number))
        {
            if (IsEven(number))
            {
                Console.WriteLine(number + " is an even number.");
            }
            else
            {
                Console.WriteLine(number + " is an odd number.");
            }
        }
        else
        {
            Console.WriteLine("Invalid input. Please enter a valid integer number.");
        }
    }
    Console.ReadLine();
}

static bool IsEven(int number)
{
    return number % 2 == 0;
}

```

- C# LAB 03

```

1. static void Main(string[] args)
{
    Console.WriteLine("Enter an integer");
    int number=Convert.ToInt32(Console.ReadLine());

    if (IsEven(number))
    {
        Console.WriteLine(number + " is an even number");
    }
    else
    {
        Console.WriteLine(number + " is an odd number");
    }
    Console.ReadLine();

}
static bool IsEven(int number)
{
    return number % 2 == 0;
}
2. static void Main(string[] args)
{
    Console.WriteLine("Enter a string:");
    string input = Console.ReadLine();

    int vowelCount = CountVowels(input);

    Console.WriteLine($"Number of vowels: {vowelCount}");
}

static int CountVowels(string input)
{
    int count = 0;
    string vowels = "AEIOUaeiou";

    foreach (char c in input)
    {
        if (vowels.Contains(c))
        {
            count++;
        }
    }

    return count;
}
3. static void Main(string[] args)
{
    Console.WriteLine("Enter a number:");
    int number = int.Parse(Console.ReadLine());

    int sum = CalculateSumOfDigits(number);

    Console.WriteLine($"Sum of digits: {sum}");
}

```

```

        Console.ReadLine();
    }

    static int CalculateSumOfDigits(int number)
    {
        int sum = 0;

        for (; number != 0; number /= 10)
        {
            int digit = number % 10;
            sum += digit;
        }

        return sum;
    }

```

4. static void Main(string[] args)

```

    {
        Console.WriteLine("Enter a positive integer:");
        int number = int.Parse(Console.ReadLine());

        int sum = CalculateSumOfOddNumbers(n);

        Console.WriteLine($"Sum of odd numbers from 1 to {n}: {sum}");
        Console.ReadLine();
    }

    static int CalculateSumOfOddNumbers(int number)
    {
        int sum = 0;

        for (int i = 1; i <= n; i += 2)
        {
            sum += i;
        }

        return sum;
    }

```

- **C# LAB 04**

Question 01

1. internal class convertvalues

```

{
    public void kilometerTOMeter()
    {

        Console.WriteLine("Enter the distance in kilometer:");
    }
}

```

```

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

        double meters = km * 1000;

        Console.WriteLine("The distance in meter is " + meters);
        Console.ReadLine();
    }

}

    internal class Program
{
    static void Main(string[] args)
    {
        convertvalues convert = new convertvalues();
        convert.kmTOmeter();

    }

}

```

2. internal class convertvalues

```

{
    public void kilometerTOmeter(double kilometers)
    {
        double meters = kilometers * 1000;

        Console.WriteLine("The distance in meter is " + meters);
        Console.ReadLine();
    }

}

    internal class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Enter the distance in kilometer:");
        double kilometers = Convert.ToDouble(Console.ReadLine());

        convertvalues convert = new convertvalues();
        convert.kilometerTOmeter(kilometers);

    }

}

```

3. internal class convertvalues

```

{
    public double kilometerTOmeter(double kilometers)
    {
        double meters = kilometers * 1000;

        return meters;
    }
}

```

```

    }

}

    internal class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Enter the distance in kilometer:");
        double kilometers = Convert.ToDouble(Console.ReadLine());

        convertvalues convert = new convertvalues();
        double meters = convert.kilometerTOmeter(kilometers);
        Console.WriteLine("The distance in meter is " + meters);
        Console.ReadLine();

    }

}

```

Question 02

1. internal class FindValues

```

{
    public double FindArea(double radius)
    {
        double aria = Math.PI * Math.Pow(radius, 2);
        return aria;
    }

    public double FindCircumference(double radius)
    {
        double circumference = 2 * Math.PI * radius;
        return circumference;
    }
}

    static void Main(string[] args)
    {
        Console.WriteLine("Enter the radius of the circle:");
        double radius = double.Parse(Console.ReadLine());

        FindValues calculator = new FindValues();

        double aria = calculator.FindAria(radius);
        double circumference = calculator.FindCircumference(radius);

        Console.WriteLine($"Area of the circle: {aria}");
        Console.WriteLine($"Circumference of the circle: {circumference}");
    }
}

```



```
Console.ReadLine();  
}
```

- C# LAB 05

Question 03

```
class Calculator  
{  
    public double add(double num1, double num2)  
    {  
        return num1 + num2;  
    }  
  
    public double subtract(double num1, double num2)  
    {  
        return num1 - num2;  
    }  
    public double multiply(double num1, double num2)  
    {  
        return num1 * num2;  
    }  
    public double divide(double num1, double num2)  
    {  
        return num1 / num2;  
    }  
}
```

```

static void Main(string[] args)
{
    {
        Console.WriteLine("Select an operation:");
        Console.WriteLine("1. Addition");
        Console.WriteLine("2. Subtraction");
        Console.WriteLine("3. Multiplication");
        Console.WriteLine("4. Division");

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

        if (choice == 1 || choice == 2 || choice == 3 || choice == 4)
        {
            Console.WriteLine("Enter the first number:");
            double num1 = double.Parse(Console.ReadLine());

            Console.WriteLine("Enter the second number:");
            double num2 = double.Parse(Console.ReadLine());

            Calculator calculator = new Calculator();

            switch (choice)
            {
                case 1:
                    double sum = calculator.add(num1, num2);
                    Console.WriteLine($"The result of addition is: {sum}");
                    break;
                case 2:
                    double difference = calculator.subtract(num1, num2);
                    Console.WriteLine($"The result of subtraction is: {difference}");
                    break;
                case 3:
                    double multiplication = calculator.multiply(num1, num2);
                    Console.WriteLine($"The result of multiplication is: {multiplication}");
                    break;
                case 4:
                    double division = calculator.divide(num1, num2);
                    Console.WriteLine($"The result of division is: {division}");
                    break;

                default:
                    Console.WriteLine("Invalid choice. Please select 1,2,3 or 4.");
                    break;
            }
        }
        else
        {
            Console.WriteLine("Invalid choice. Please select 1,2,3 or 4.");
        }
        Console.ReadLine();
    }
}

```

Question 05

```
class ArrayProcessor
{
    private int[] array;

    public ArrayProcessor(int[] array)
    {
        this.array = array;
    }

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

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

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

    public int[] ReverseArray()
    {
        int[] reversedArray = new int[array.Length];
        for (int i = 0; i < array.Length; i++)
        {
```

```

        reversedArray[i] = array[array.Length - 1 - i];
    }
    return reversedArray;
}
}
static void Main()
{
    int[] array = new int[10];

    Console.WriteLine("Enter 10 elements for the array:");
    for (int i = 0; i < 10; i++)
    {
        array[i] = Convert.ToInt32(Console.ReadLine());
    }

    ArrayProcessor arrayProcessor = new ArrayProcessor(array);

    int minValue = arrayProcessor.GetMinValue();
    int maxValue = arrayProcessor.GetMaxValue();
    double averageValue = arrayProcessor.GetAverageValue();
    int[] reversedArray = arrayProcessor.ReverseArray();

    Console.WriteLine("Minimum value: " + minValue);
    Console.WriteLine("Maximum value: " + maxValue);
    Console.WriteLine("Average value: " + averageValue);
    Console.WriteLine("Reverse order of values:");
    foreach (int num in reversedArray)
    {
        Console.Write(num + " ");
    }
    Console.ReadLine();
}

```