

//Lasantha Karunaratne

Exercise 02

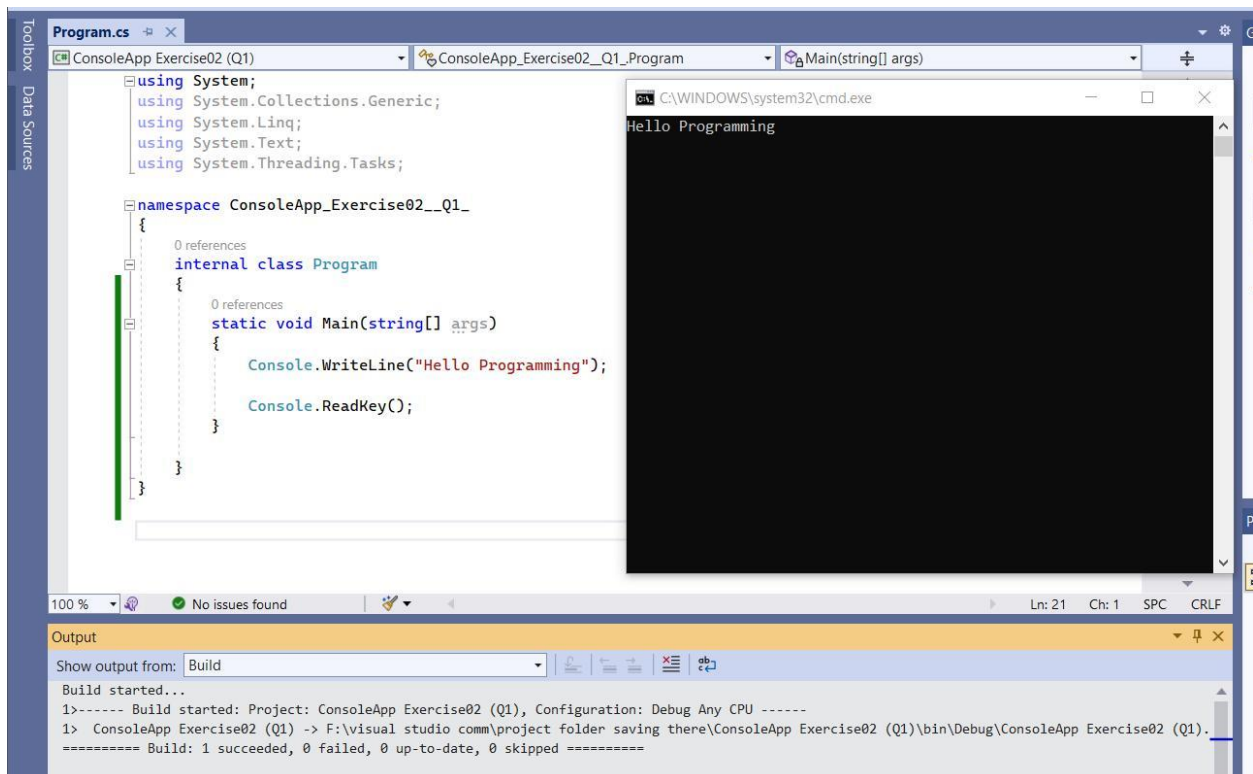
Q1

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q1_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Hello Programming");

            Console.ReadKey();
        }
    }
}
```

Output



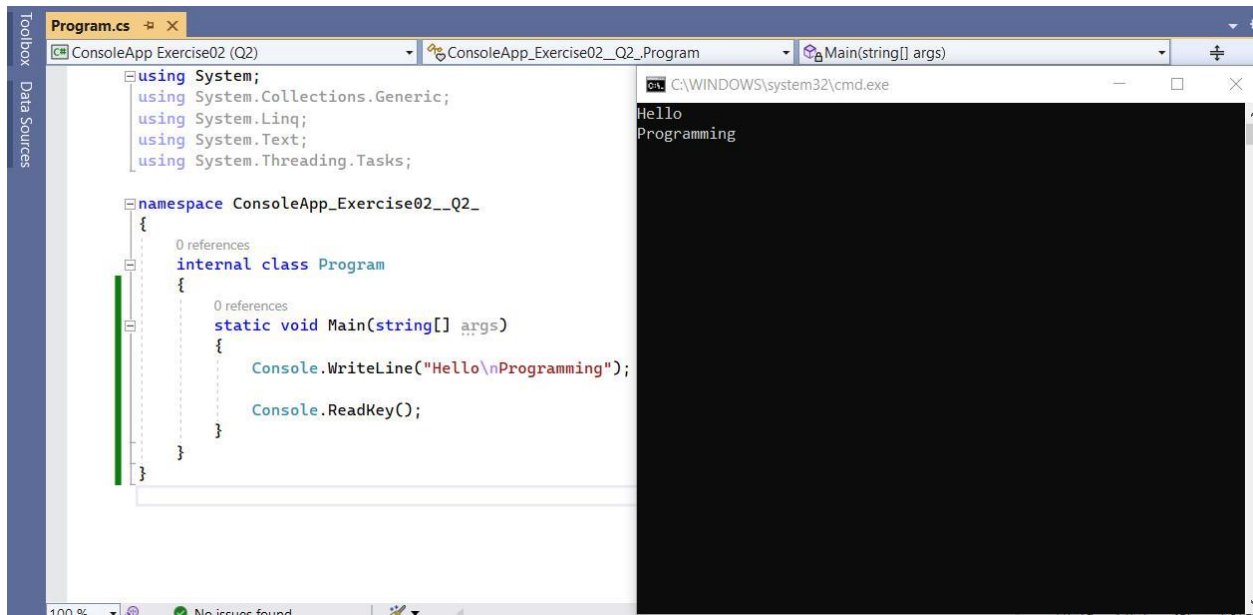
Q2

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q2_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Hello\nProgramming");

            Console.ReadKey();
        }
    }
}
```

Output



Q3

```
using System;
using System.Collections.Generic;
```

```

using System.Linq;
using System.Text;
using System.Threading.Tasks;

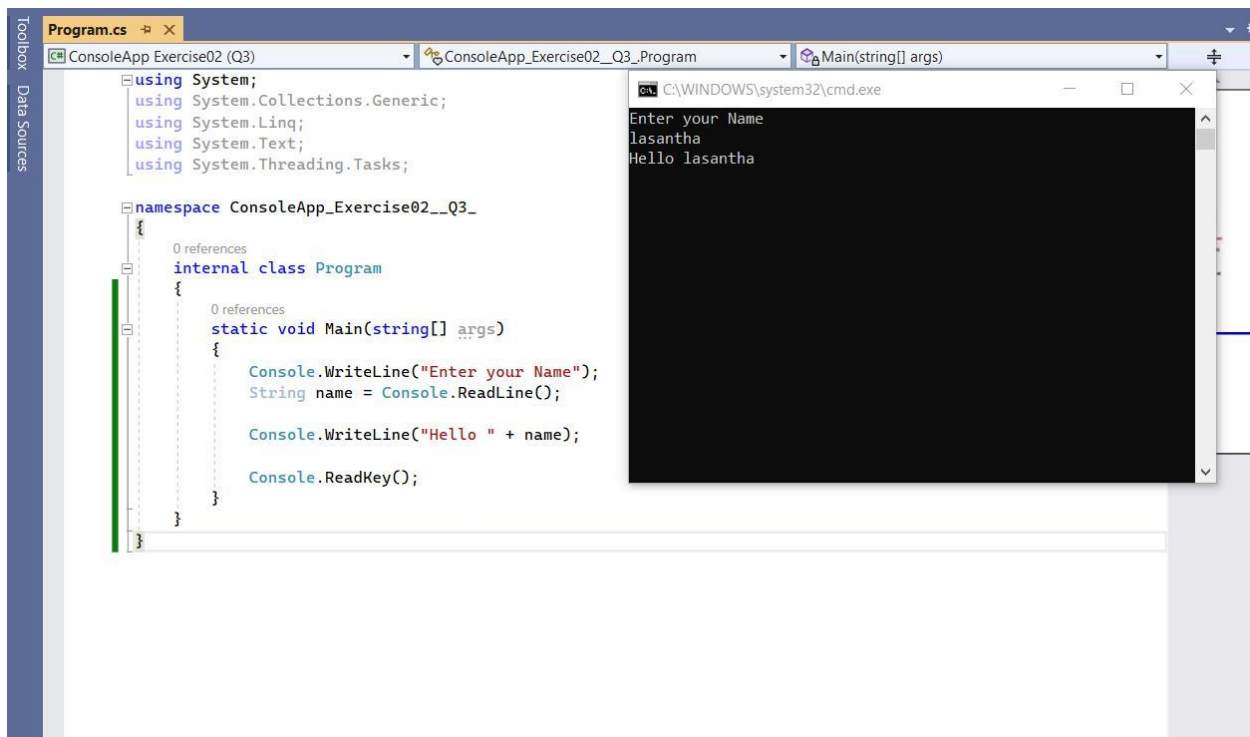
namespace ConsoleApp_Exercise02__Q3_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter your Name");
            String name = Console.ReadLine();

            Console.WriteLine("Hello " + name);

            Console.ReadKey();
        }
    }
}

```

Output



Q4

```

using System;
using System.Collections.Generic;
using System.Linq;

```

```

using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q4_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter First Number :");
            int firstNumber = Convert.ToInt32(Console.ReadLine());

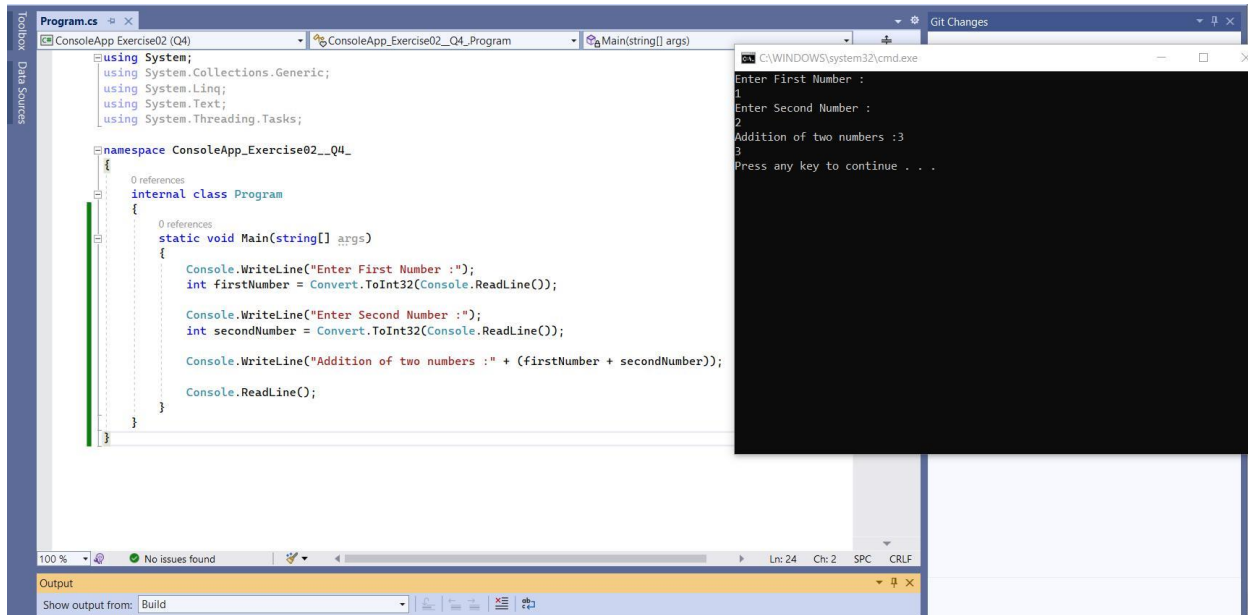
            Console.WriteLine("Enter Second Number :");
            int secondNumber = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Addition of two numbers :" + (firstNumber +
secondNumber));

            Console.ReadLine();
        }
    }
}

```

Output



Q5

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q5_
{

```

```

internal class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Enter Salesman Number");
        int number = Convert.ToInt32(Console.ReadLine());

        Console.WriteLine("Enter Salesman Name");
        string name = Console.ReadLine();

        Console.WriteLine("Enter Number of Units Sold");
        int numberOfUnits = Convert.ToInt32(Console.ReadLine());

        Console.WriteLine("Enter Unit Price");
        int unitPrice = Convert.ToInt32(Console.ReadLine());

        //Printing Salesman Report

        Console.WriteLine("Salesman Number : " + number);
        Console.WriteLine("Salesman Name : " + name);
        Console.WriteLine("Number of Units Sold : " + numberOfUnits);
        Console.WriteLine("Unit Price : " + unitPrice);
        Console.WriteLine("Sales Value : " + (numberOfUnits * unitPrice));

        Console.ReadLine();
    }
}

```

Output

The screenshot displays the Visual Studio IDE with the C# code from the previous block in the editor. The file explorer on the left shows the project structure. The output window on the right shows the execution results of the program. The status bar at the bottom indicates 'No issues found' and 'Ln: 37 Ch: 1 SPC CRLF'.

```

Program.cs
ConsoleApp Exercise02 (Q5)
namespace ConsoleApp_Exercise02__Q5_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter Salesman Number");
            int number = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter Salesman Name");
            string name = Console.ReadLine();

            Console.WriteLine("Enter Number of Units Sold");
            int numberOfUnits = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter Unit Price");
            int unitPrice = Convert.ToInt32(Console.ReadLine());

            //Printing Salesman Report

            Console.WriteLine("Salesman Number : " + number);
            Console.WriteLine("Salesman Name : " + name);
            Console.WriteLine("Number of Units Sold : " + numberOfUnits);
            Console.WriteLine("Unit Price : " + unitPrice);
            Console.WriteLine("Sales Value : " + (numberOfUnits * unitPrice));

            Console.ReadLine();
        }
    }
}

```

Output:

```

Enter Salesman Number
5
Enter Salesman Name
lasantha
Enter Number of Units Sold
5
Enter Unit Price
20
Salesman Number : 5
Salesman Name : lasantha
Number of Units Sold : 5
Unit Price : 20
Sales Value : 100

```

Q6= same Q to Q5

Q7

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q7_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            String studentName;
            int studentNo;
            Double marks1, marks2, marks3, totalMarks, averageMarks;

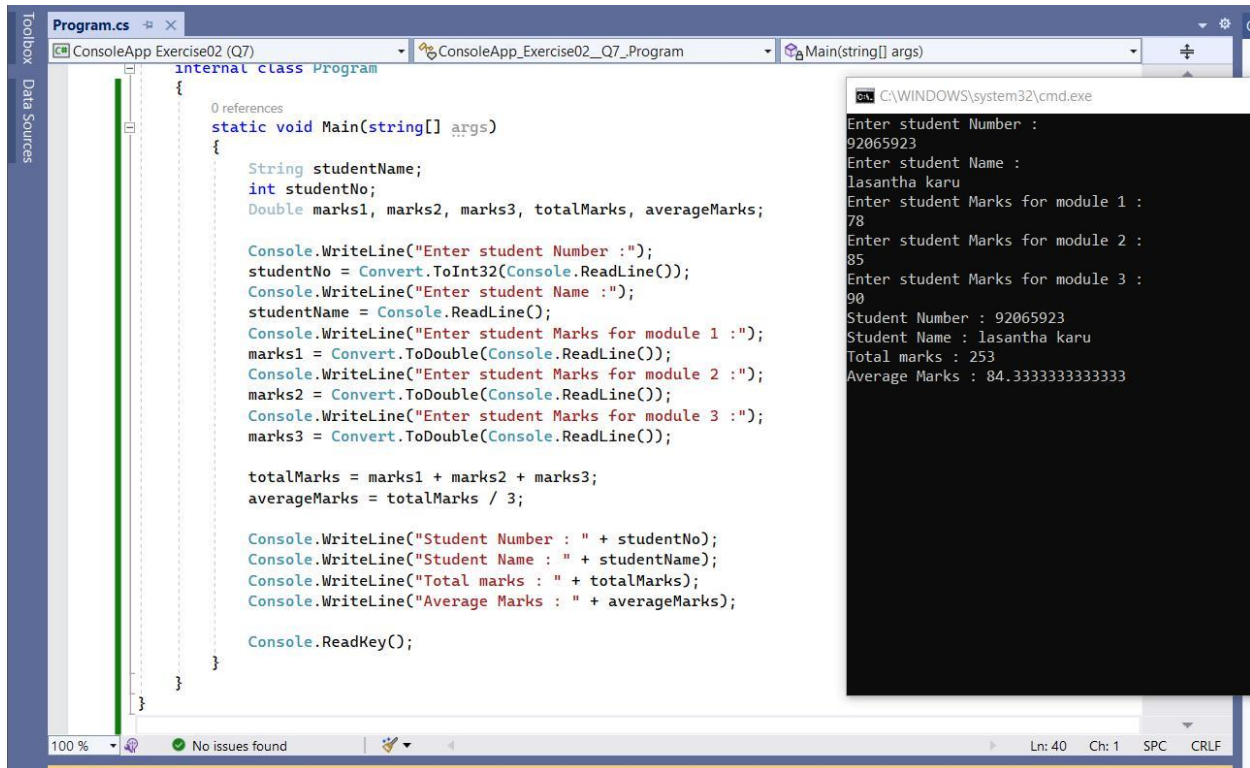
            Console.WriteLine("Enter student Number :");
            studentNo = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter student Name :");
            studentName = Console.ReadLine();
            Console.WriteLine("Enter student Marks for module 1 :");
            marks1 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 2 :");
            marks2 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 3 :");
            marks3 = Convert.ToDouble(Console.ReadLine());

            totalMarks = marks1 + marks2 + marks3;
            averageMarks = totalMarks / 3;

            Console.WriteLine("Student Number : " + studentNo);
            Console.WriteLine("Student Name : " + studentName);
            Console.WriteLine("Total marks : " + totalMarks);
            Console.WriteLine("Average Marks : " + averageMarks);

            Console.ReadKey();
        }
    }
}
```

Output



Q8

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q8_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            String studentName;
            int studentNo;
            Double marks1, marks2, marks3, totalMarks, averageMarks;

            Console.WriteLine("Enter student Number :");
            studentNo = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter student Name :");
            studentName = Console.ReadLine();
            Console.WriteLine("Enter student Marks for module 1 :");
            marks1 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 2 :");
            marks2 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 3 :");
  
```

```

marks3 = Convert.ToDouble(Console.ReadLine());

totalMarks = marks1 + marks2 + marks3;
averageMarks = totalMarks / 3;

Console.WriteLine("Student Number : " + studentNo);
Console.WriteLine("Student Name : " + studentName);
Console.WriteLine("Total marks : " + totalMarks);
Console.WriteLine("Average Marks : " + averageMarks);
if (averageMarks >= 50)
{
    Console.WriteLine("Grade is Pass");
}
else
{
    Console.WriteLine("Grade is Fail");
}

Console.ReadKey();
}
}
}

```

Output

The screenshot displays a Visual Studio IDE with a C# console application. The code in the editor calculates the average of three marks and determines if the student passes based on the average. The output window shows the program's execution with user input and the resulting calculations and grade.

```

Program.cs
ConsoleApp Exercise02 (Q8) ConsoleApp_Exercise02_Q8_Program Main(string[] args)
Console.WriteLine("Enter student Number :");
studentNo = Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter student Name :");
studentName = Console.ReadLine();
Console.WriteLine("Enter student Marks for module 1 :");
marks1 = Convert.ToDouble(Console.ReadLine());
Console.WriteLine("Enter student Marks for module 2 :");
marks2 = Convert.ToDouble(Console.ReadLine());
Console.WriteLine("Enter student Marks for module 3 :");
marks3 = Convert.ToDouble(Console.ReadLine());

totalMarks = marks1 + marks2 + marks3;
averageMarks = totalMarks / 3;

Console.WriteLine("Student Number : " + studentNo);
Console.WriteLine("Student Name : " + studentName);
Console.WriteLine("Total marks : " + totalMarks);
Console.WriteLine("Average Marks : " + averageMarks);
if (averageMarks >= 50)
{
    Console.WriteLine("Grade is Pass");
}
else
{
    Console.WriteLine("Grade is Fail");
}

Console.ReadKey();
}
}
}

C:\WINDOWS\system32\cmd.exe
Enter student Number :
92065923
Enter student Name :
lasantha karunaratne
Enter student Marks for module 1 :
100
Enter student Marks for module 2 :
95
Enter student Marks for module 3 :
90
Student Number : 92065923
Student Name : lasantha karunaratne
Total marks : 285
Average Marks : 95
Grade is Pass

```


Q9

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q9_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            String studentName;
            int studentNo;
            Double marks1, marks2, marks3, totalMarks, averageMarks;

            Console.WriteLine("Enter student Number :");
            studentNo = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter student Name :");
            studentName = Console.ReadLine();
            Console.WriteLine("Enter student Marks for module 1 :");
            marks1 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 2 :");
            marks2 = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter student Marks for module 3 :");
            marks3 = Convert.ToDouble(Console.ReadLine());

            totalMarks = marks1 + marks2 + marks3;
            averageMarks = totalMarks / 3;

            Console.WriteLine("Student Number : " + studentNo);
            Console.WriteLine("Student Name : " + studentName);
            Console.WriteLine("Total marks : " + totalMarks);
            Console.WriteLine("Average Marks : " + averageMarks);
            if (averageMarks <= 49)
            {
                Console.WriteLine("Grade is Fail");
            }
            else if (averageMarks <= 59)
            {
                Console.WriteLine("Grade is Pass");
            }
            else if (averageMarks <= 69)
            {
                Console.WriteLine("Grade is Credit");
            }
            else if (averageMarks <= 79)
            {
                Console.WriteLine("Grade is Very Good Pass");
            }
            else
            {
                Console.WriteLine("Grade is Distinction");
            }
        }
    }
}
```

```

        Console.ReadKey();
    }
}

```

Output

The screenshot shows a Visual Studio IDE with a C# program in the main editor and its output in the console window.

Program.cs:

```

Console.WriteLine("Student Number : " + studentNo);
Console.WriteLine("Student Name : " + studentName);
Console.WriteLine("Total marks : " + totalMarks);
Console.WriteLine("Average Marks : " + averageMarks);
if (averageMarks <= 49)
{
    Console.WriteLine("Grade is Fail");
}
else if (averageMarks <= 59)
{
    Console.WriteLine("Grade is Pass");
}
else if (averageMarks <= 69)
{
    Console.WriteLine("Grade is Credit");
}
else if (averageMarks <= 79)
{
    Console.WriteLine("Grade is Very Good Pass");
}
else
{
    Console.WriteLine("Grade is Distinction");
}

Console.ReadKey();

```

Console Output (C:\WINDOWS\system32\cmd.exe):

```

Enter student Number :
5246
Enter student Name :
lasantha
Enter student Marks for module 1 :
95
Enter student Marks for module 2 :
85
Enter student Marks for module 3 :
75
Student Number : 5246
Student Name : lasantha
Total marks : 255
Average Marks : 85
Grade is Distinction

```

Q10

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q10_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            String salesmanName;
            int salesmanNo, soldUnits;
            Double unitPrice, salesValue, finalSalary = 0, commision = 0;
            Double basicSalary = 25000;

```

```

        Console.WriteLine("Enter Salesman Number :");
        salesmanNo = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter Salesman Name :");
        salesmanName = Console.ReadLine();
        Console.WriteLine("Enter Number of Units Sold :");
        soldUnits = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter Unit Price :");
        unitPrice = Convert.ToDouble(Console.ReadLine());

        salesValue = unitPrice * soldUnits;
        if (salesValue > 50000)
        {
            commision = salesValue * 0.1;
            finalSalary = basicSalary + commision;
        }
        else
        {
            finalSalary = basicSalary;
        }

        Console.WriteLine("Salesman Number : " + salesmanNo);
        Console.WriteLine("Salesman Name : " + salesmanName);
        Console.WriteLine("Sales Value : " + salesValue);
        Console.WriteLine("Commision is : " + commision);
        Console.WriteLine("Final Salary is : " + finalSalary);

        Console.ReadKey();
    }
}

```

Output

```
Program.cs
ConsoleApp Exercise02 (Q10)
ConsoleApp_Exercise02_Q10_Program
Main(string[] args)

Console.WriteLine("Enter Salesman Number :");
salesmanNo = Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter Salesman Name :");
salesmanName = Console.ReadLine();
Console.WriteLine("Enter Number of Units Sold :");
soldUnits = Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter Unit Price :");
unitPrice = Convert.ToDouble(Console.ReadLine());

salesValue = unitPrice * soldUnits;
if (salesValue > 50000)
{
    commision = salesValue * 0.1;
    finalSalary = basicSalary + commision;
}
else
{
    finalSalary = basicSalary;
}

Console.WriteLine("Salesman Number : " + salesmanNo);
Console.WriteLine("Salesman Name : " + salesmanName);
Console.WriteLine("Sales Value : " + salesValue);
Console.WriteLine("Commision is : " + commision);
Console.WriteLine("Final Salary is : " + finalSalary);

Console.ReadKey();
```

```
C:\WINDOWS\system32\cmd.exe
Enter Salesman Number :
1524
Enter Salesman Name :
Iasantha karu
Enter Number of Units Sold :
500
Enter Unit Price :
100
Salesman Number : 1524
Salesman Name : Iasantha karu
Sales Value : 50000
Commision is : 0
Final Salary is :25000
```

Q11

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q11_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double radius, circumference, areaOfCircle;
            double PI = 3.14;

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

            circumference = 2 * PI * radius;
            areaOfCircle = PI * radius * radius;

            Console.WriteLine("circle circumference is : " + circumference);
            Console.WriteLine("Area of a Circle is : " + areaOfCircle);

            Console.ReadKey();
        }
    }
}
```

```

    }
}
}

```

Output

The screenshot shows the Visual Studio IDE with the 'Program.cs' file open. The code defines a namespace 'ConsoleApp_Exercise02__Q11_' and an internal class 'Program' with a static 'Main' method. The 'Main' method prompts the user for the radius of a circle, calculates its circumference and area, and displays the results. The output window on the right shows the execution results: 'Input the radius of the circle : 50', 'circle circumference is : 314', and 'Area of a Circle is : 7850'.

```

Program.cs
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q11_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double radius, circumference, areaOfCircle;
            double PI = 3.14;

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

            circumference = 2 * PI * radius;
            areaOfCircle = PI * radius * radius;

            Console.WriteLine("circle circumference is : " + circumference);
            Console.WriteLine("Area of a Circle is : " + areaOfCircle);

            Console.ReadKey();
        }
    }
}

```

Output:

```

C:\WINDOWS\system32\cmd.exe
Input the radius of the circle :
50
circle circumference is : 314
Area of a Circle is : 7850

```

Q12

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q12_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double width, height, areaOfCircle;
            double perimeter;

            Console.WriteLine("Input the Rectangle Height : ");
            height = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Input the Rectangle width : ");
            width = Convert.ToDouble(Console.ReadLine());

            perimeter = 2 * (height + width);

```

```

        areaOfCircle = height * width;

        Console.WriteLine("Rectangle Perimeter is : " + perimeter);
        Console.WriteLine("Area of a Rectangle is : " + areaOfCircle);

        Console.ReadKey();
    }
}

```

Output

The screenshot shows the Visual Studio IDE with a C# file named Program.cs. The code is for a console application that calculates the perimeter and area of a rectangle. The code is as follows:

```

using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q12_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double width, height, areaOfCircle;
            double perimeter;

            Console.WriteLine("Input the Rectangle Height : ");
            height = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Input the Rectangle width : ");
            width = Convert.ToDouble(Console.ReadLine());

            perimeter = 2 * (height + width);
            areaOfCircle = height * width;

            Console.WriteLine("Rectangle Perimeter is : " + perimeter);
            Console.WriteLine("Area of a Rectangle is : " + areaOfCircle);

            Console.ReadKey();
        }
    }
}

```

To the right of the code editor, a command prompt window is open, showing the output of the program:

```

C:\WINDOWS\system32\cmd.exe
Input the Rectangle Height :
45
Input the Rectangle width :
45
Rectangle Perimeter is : 180
Area of a Rectangle is : 2025

```

Q13

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp_Exercise02__Q13_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double height, surfaceArea, radius;
            double volume;
            double PI = 3.14;

```

```

        Console.WriteLine("Input the radius of the Cylinder : ");
        radius = Convert.ToDouble(Console.ReadLine());
        Console.WriteLine("Input the Cylinder Height : ");
        height = Convert.ToDouble(Console.ReadLine());

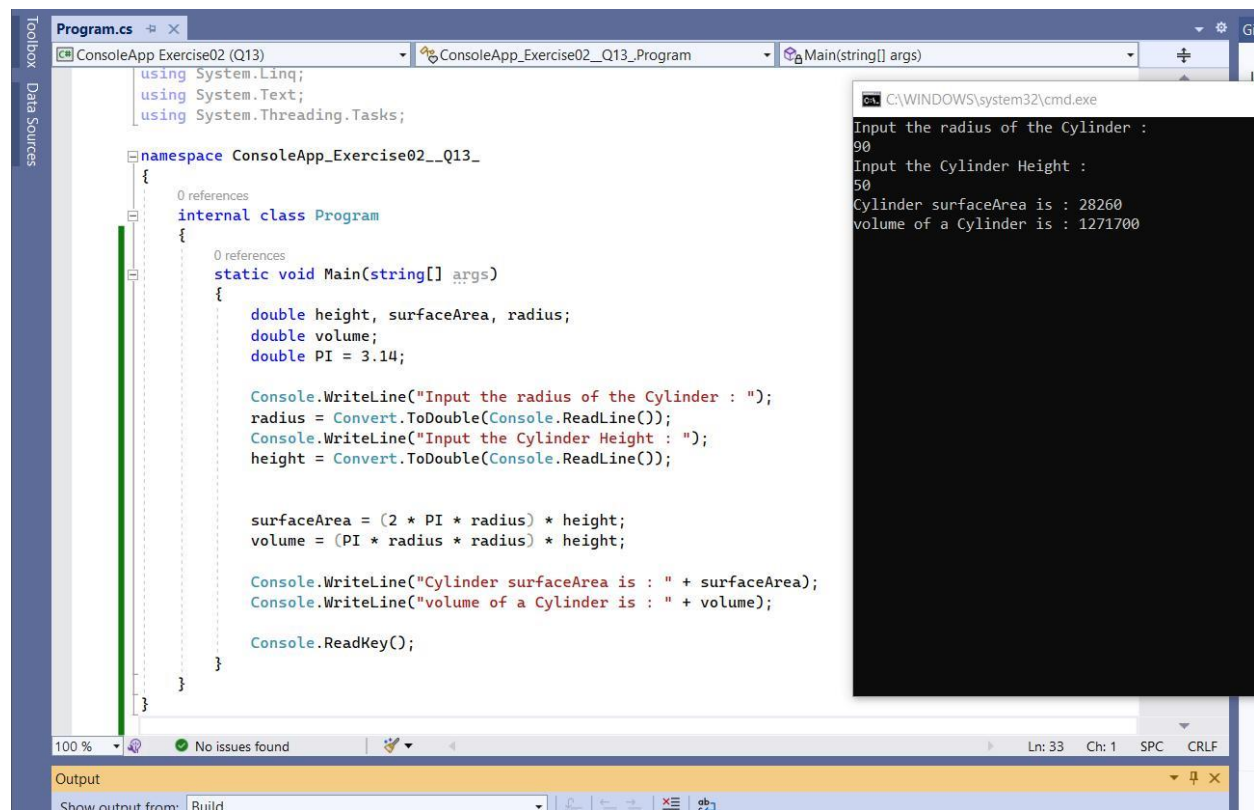
        surfaceArea = (2 * PI * radius) * height;
        volume = (PI * radius * radius) * height;

        Console.WriteLine("Cylinder surfaceArea is : " + surfaceArea);
        Console.WriteLine("volume of a Cylinder is : " + volume);

        Console.ReadKey();
    }
}

```

Output



Q14

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

```

```

namespace ConsoleApp_Exercise02__Q14_15_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            double width, height, areaOfCircle;
            double perimeter;
            double radius, circumference;
            double PI = 3.14;
            double surfaceArea;
            double volume;
            int userChoice;

            Console.WriteLine("----- Select the choice and Type the number
You want :-----");
            Console.WriteLine("1 - The area and the circumference of the circle");
            Console.WriteLine("2 - The perimeter and the area of the rectangle");
            Console.WriteLine("3 - The surface area and the volume of the
cylinder");
            Console.WriteLine("0 - If you want to exit type zero");
            Console.WriteLine("-----");
            Console.WriteLine("-----");
            Console.Write("Input the Number above list : ");
            userChoice = Convert.ToInt32(Console.ReadLine());

            while (userChoice != 0)
            {
                if (userChoice == 1)
                {
                    Console.WriteLine("Input the radius of the circle : ");
                    radius = Convert.ToDouble(Console.ReadLine());

                    circumference = 2 * PI * radius;
                    areaOfCircle = PI * radius * radius;

                    Console.WriteLine("circle circumference is : " + circumference);
                    Console.WriteLine("Area of a Circle is : " + areaOfCircle);
                }
                else if (userChoice == 2)
                {
                    Console.WriteLine("Input the Rectangle Height : ");
                    height = Convert.ToDouble(Console.ReadLine());
                    Console.WriteLine("Input the Rectangle width : ");
                    width = Convert.ToDouble(Console.ReadLine());

                    perimeter = 2 * (height + width);
                    areaOfCircle = height * width;

                    Console.WriteLine("Rectangle Perimeter is : " + perimeter);
                    Console.WriteLine("Area of a Rectangle is : " + areaOfCircle);
                }
                else if (userChoice == 3)
            }
        }
    }
}

```



```

    {
        Console.WriteLine("Input the radius of the Cylinder : ");
        radius = Convert.ToDouble(Console.ReadLine());
        Console.WriteLine("Input the Cylinder Height : ");
        height = Convert.ToDouble(Console.ReadLine());

        surfaceArea = (2 * PI * radius) * height;
        volume = (PI * radius * radius) * height;

        Console.WriteLine("Cylinder surfaceArea is : " + surfaceArea);
        Console.WriteLine("volume of a Cylinder is : " + volume);
    }
    else
    {
        Console.WriteLine("Input Number is wrong Try again");
    }

    Console.WriteLine("Input the Number above list : ");
    userChoice = Convert.ToInt32(Console.ReadLine());
}

Console.WriteLine("Thank you");
Console.ReadKey();
}
}
}
}
}

```

Output

The screenshot displays a Visual Studio IDE with a C# console application. The code in the background is identical to the one provided in the first block. The console window, titled 'C:\WINDOWS\system32\cmd.exe', shows the following output:

```

----- Select the choice and Type the number You want :-----
1 - The area and the circumference of the circle
2 - The perimeter and the area of the rectangle
3 - The surface area and the volume of the cylinder
0 - If you want to exit type zero
-----
Input the Number above list : 100
Input Number is wrong Try again
Input the Number above list : 1
Input the radius of the circle :
3
circle circumference is : 18.84
Area of a Circle is : 28.26
Input the Number above list :

```

The status bar at the bottom indicates '100 %', 'No issues found', and 'Ln: 90 Ch: 1 SPC CRLF'.