

20 C# - Programmed Codes  
By [Vihar Dasari](#) - NB Technologies

**Project 1**

Write a C# Code to Print Multiplication Table for a given number

**Code**

```
using System;

// Multiplication Table

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input, i;
            Console.WriteLine("\nCode Dev by Vihar Dasari\n\n\t\t\t ----- Multiplication Table By Vihar©----- \n\n
            Which Multiplication Table You Want me To Print : ");

            //Reading Inputs Section
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section
            Console.WriteLine("\n Displaying Using String Concatenation Method by Vihar © \n");
            for (i = 1; i <= 10; i++)
            {
                //Printing Output using String Concatenation
                Console.WriteLine(input + "x" + i + "=" + input * i);
            }

            Console.WriteLine("\n Displaying Using String Formatting Method by Vihar © \n");
            for (i = 1; i <= 10; i++)
            {
                //Printing OutPut using String Formatting
                Console.WriteLine("{0} x {1} = {2}", input, i, input * i);
            }

            Console.WriteLine("\nMultiplication Table By Vihar D©");

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

## Output

```
C:\WINDOWS\system32\cmd.exe

Code Dev by Vihar Dasari

----- Multiplication Table By Viharc-----

Which Multiplication Table You Want me To Print :
5

Displaying Using String Concatenation Method by Vihar c
5x1=5
5x2=10
5x3=15
5x4=20
5x5=25
5x6=30
5x7=35
5x8=40
5x9=45
5x10=50

Displaying Using String Formatting Method by Vihar c
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
```

## Project 2

Write a C# Code to Print Factorial of a given number

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and print its factorial

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input, i, fact = 1;

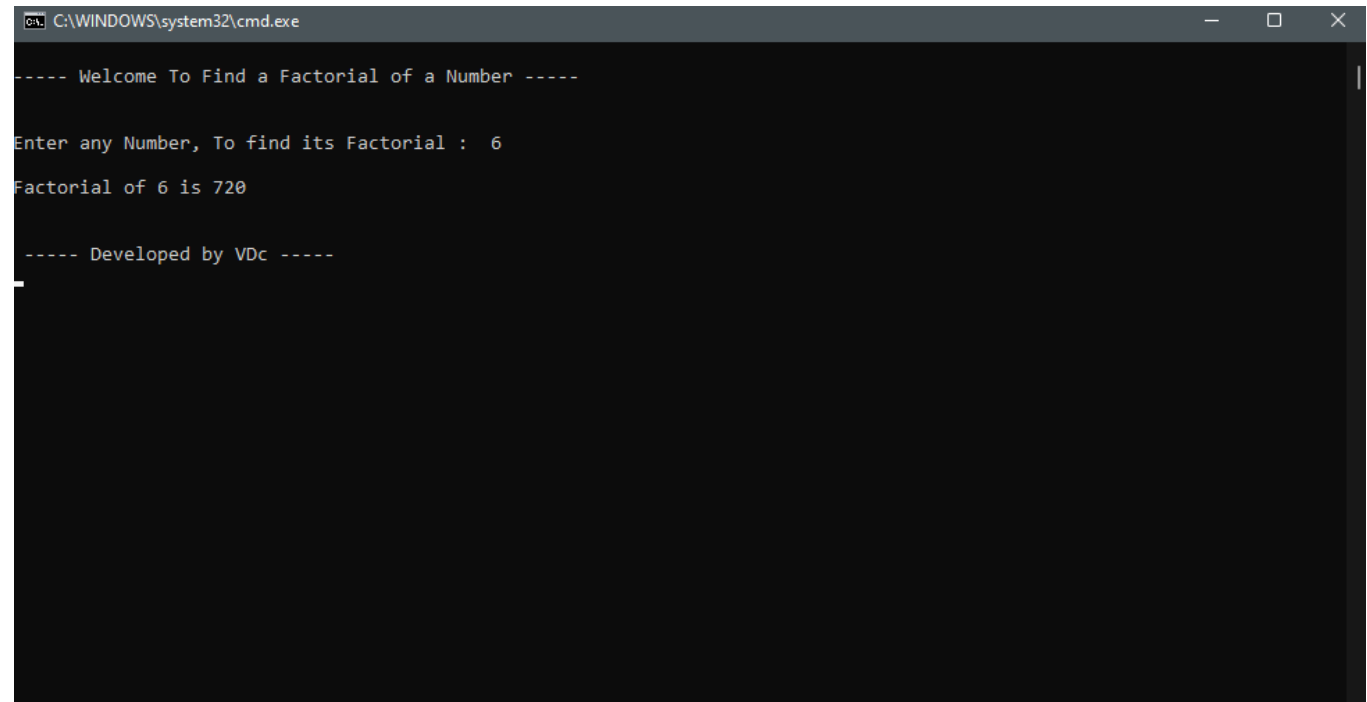
            Console.WriteLine("\n---- Welcome To Find a Factorial of a Number ----");
            //Reading Inputs Section
            Console.Write("\n\nEnter any Number, To find its Factorial : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section
            for (i = 1; i <= input; i++)
                fact = fact * i;

            Console.WriteLine("\nFactorial of {0} is {1}",input, fact);

            Console.WriteLine("\n\n ---- Developed by VD© ----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find a Factorial of a Number -----

Enter any Number, To find its Factorial : 6
Factorial of 6 is 720

----- Developed by VDC -----
```

The image shows a screenshot of a Windows command prompt window. The title bar at the top indicates the file path 'C:\WINDOWS\system32\cmd.exe'. The window contains the following text: a dashed line separator, a welcome message, a prompt to enter a number, the user input '6', the calculated factorial '720', and a closing dashed line separator with the developer's name 'VDC'.

### Project 3

Write a C# Code to Print Sum of N Natural Numbers

#### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and print sum of n natural numbers upto n.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input, i, sum = 0;

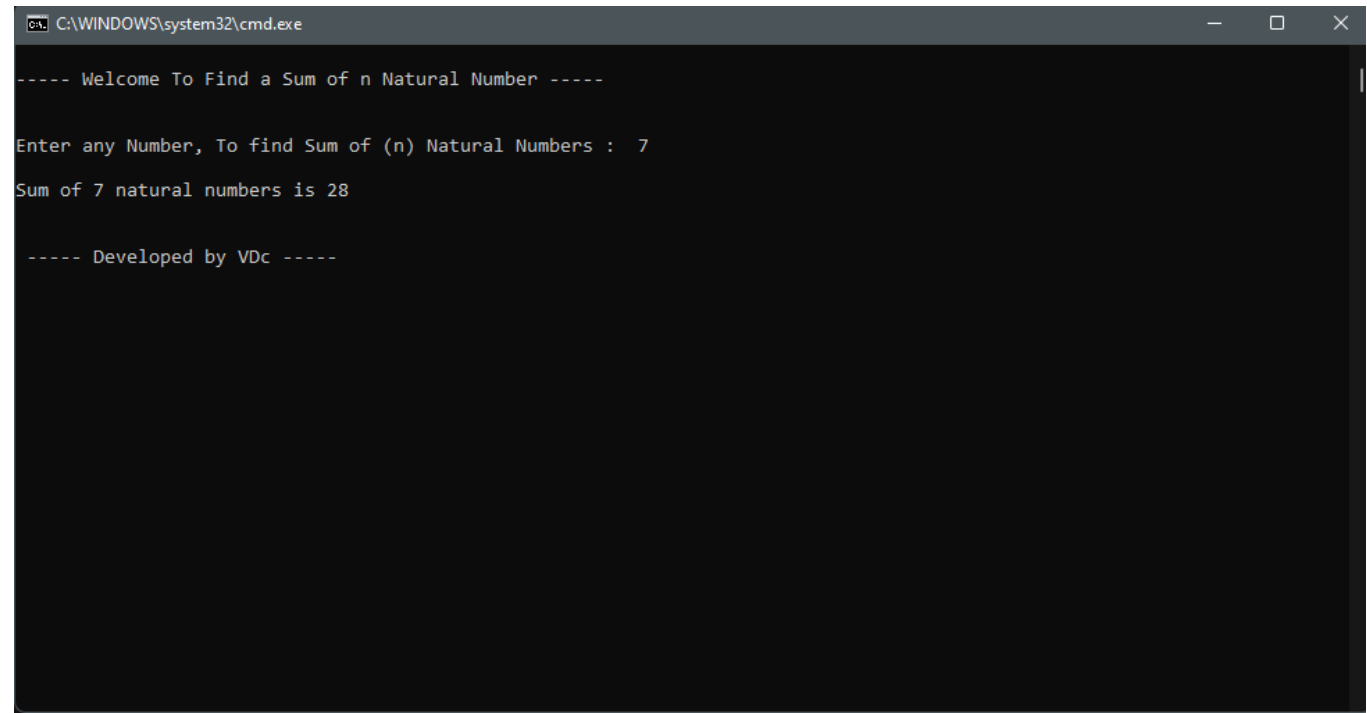
            Console.WriteLine("\n----- Welcome To Find a Sum of n Natural Number -----");
            //Reading Inputs Section
            Console.Write("\n\nEnter any Number, To find Sum of (n) Natural Numbers : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section
            for (i = 1; i <= input; i++)
                sum = sum + i;

            Console.WriteLine("\nSum of {0} natural numbers is {1}",input, sum);

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find a Sum of n Natural Number -----

Enter any Number, To find Sum of (n) Natural Numbers : 7
Sum of 7 natural numbers is 28

----- Developed by VDC -----
```

## Project 4

Write a C# Code to Print Factorial using Functions

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and print its Factorial Using Functions.

namespace ctocsprgms
{
    internal class Program
    {
        public static void PrintOutput(int n)
        {
            Console.WriteLine("\nFactorial of {0} is {1}", n, Factorial(n));
        }
        public static int Factorial(int input)
        {
            int fact = 1, i;
            for (i = 1; i <= input; i++)
                fact = fact * i;
            return fact;
        }
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input;

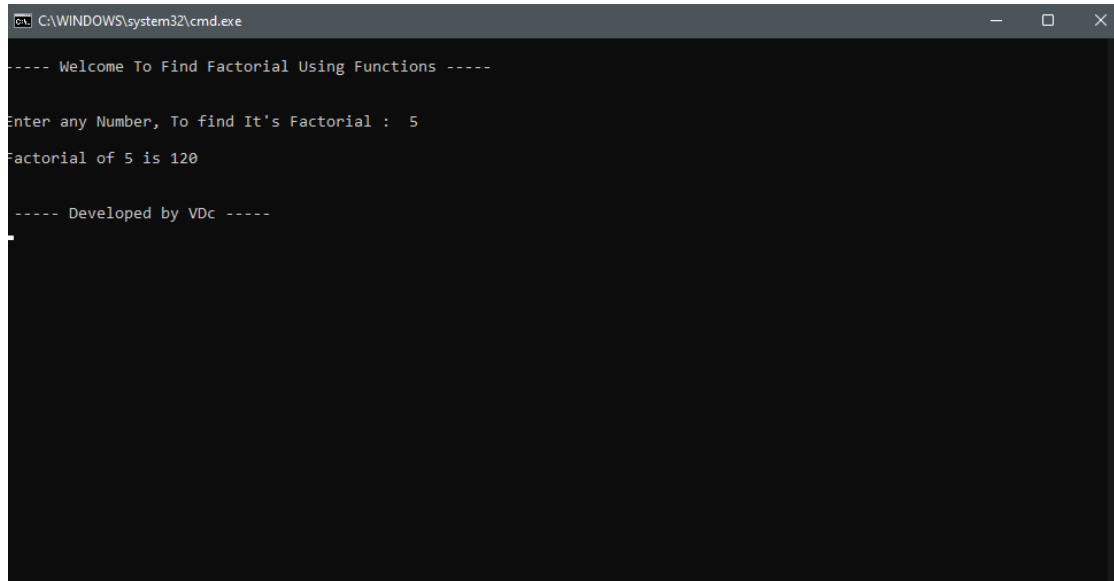
            Console.WriteLine("\n---- Welcome To Find Factorial Using Functions ----");
            //Reading Inputs Section
            Console.WriteLine("\nEnter any Number, To find It's Factorial : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section

            PrintOutput(input);

            Console.WriteLine("\n\n ---- Developed by VD© ----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find Factorial Using Functions -----

Enter any Number, To find It's Factorial : 5
Factorial of 5 is 120

----- Developed by VDC -----
```



## Project 5

Write a C# Code to Print Factorial using Recursion

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and print its Factorial Using Recursion.

namespace ctocsprgms
{
    internal class Program
    {
        public static void PrintOutput(int n)
        {
            Console.WriteLine("\nFactorial of {0} is {1}", n, Factorial(n));
        }
        public static int Factorial(int input)
        {
            if (input == 0)
                return 1;
            else
                return input * Factorial(input - 1);
        }
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input;

            Console.WriteLine("\n----- Welcome To Find Factorial Using Recursion -----");
            //Reading Inputs Section
            Console.Write("\n\nEnter any Number, To find It's Factorial : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section

            PrintOutput(input);

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

C:\WINDOWS\system32\cmd.exe

----- Welcome To Find Factorial Using Recursion -----

Enter any Number, To find It's Factorial : 5

Factorial of 5 is 120

----- Developed by VDC -----

## Project 6

Write a C# Code to Print Factors of a given number

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number from the user and print factors of a given number.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input, i;

            Console.WriteLine("\n----- Welcome To Find Factors of the Given Number -----");
            //Reading Inputs Section
            Console.Write("\n\nEnter any Number, To find It's Factor : ");
            input = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("\nThe Factors of the Given Number are :\n");
            //Program Logic Section
            for (i = 1; i <= input; i++)
            {
                if (input % i == 0)
                    Console.WriteLine(i);
            }

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find Factors of the Given Number -----

Enter any Number, To find It's Factor : 56

The Factors of the Given Number are :

1
2
4
7
8
14
28
56

----- Developed by VDC -----

Press any key to continue . . .
```

## Project 7

Write a C# Code to Print POWER of a given number [a power b]

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a , b values and print [a power b] value.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int a, b, result = 1, i;

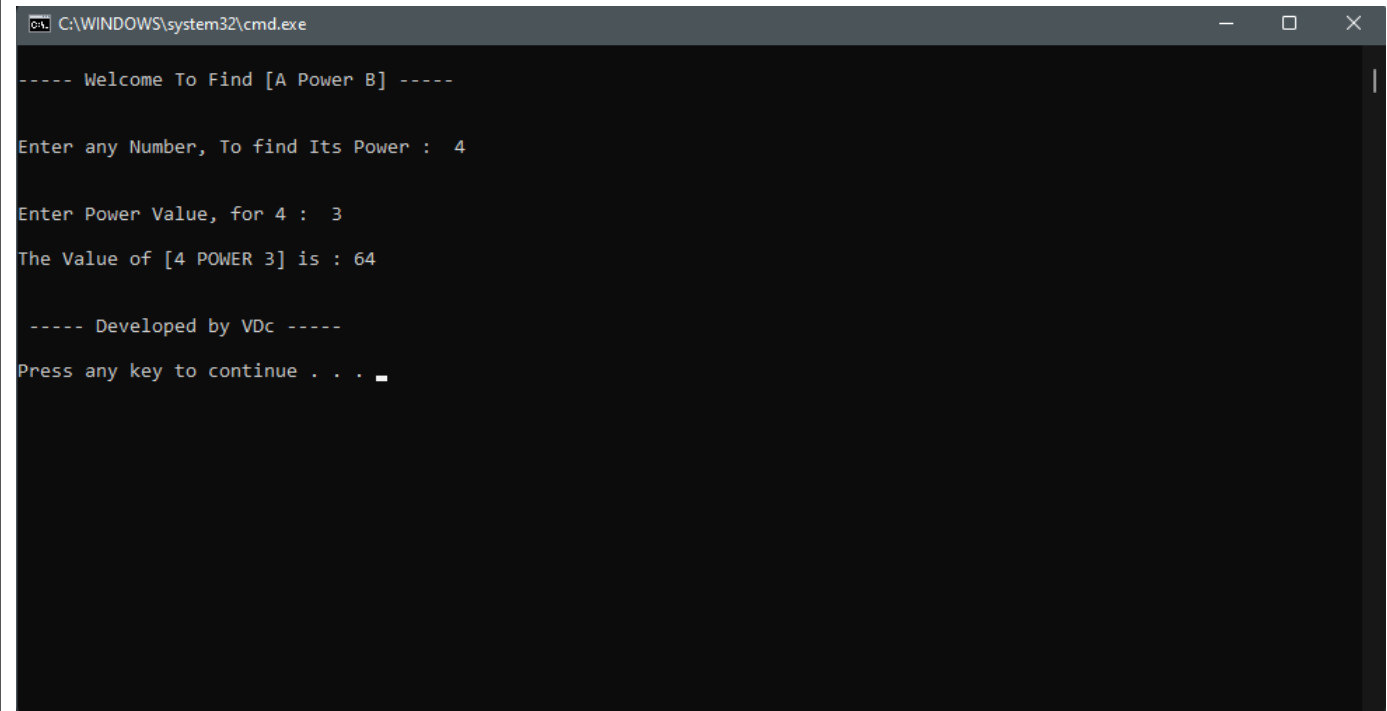
            Console.WriteLine("\n----- Welcome To Find [A Power B] -----");
            //Reading Inputs Section
            Console.Write("\nEnter any Number, To find Its Power : ");
            a = Convert.ToInt32(Console.ReadLine());
            Console.Write("\nEnter Power Value, for {0} : ", a);
            b = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section
            for (i = 1; i <= b; i++)
                result = result * a;

            Console.WriteLine("\nThe Value of [{0} POWER {1}] is : {2}", a, b, result);

            Console.WriteLine("\n----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find [A Power B] -----

Enter any Number, To find Its Power : 4

Enter Power Value, for 4 : 3

The Value of [4 POWER 3] is : 64

----- Developed by VDC -----

Press any key to continue . . .
```

## Project 8

Write a C# Code to Print Given number is Prime Number or Not

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and check, if it is a Prime Number or Not

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input, i;

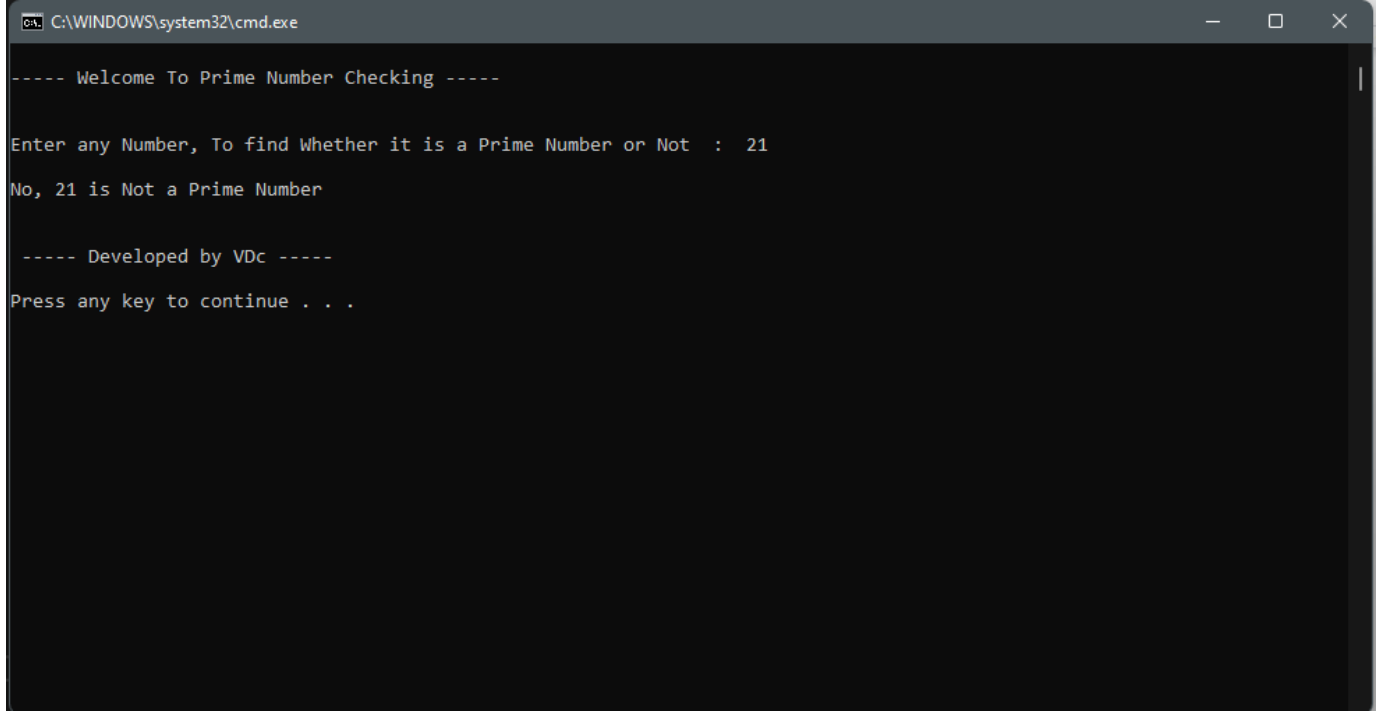
            Console.WriteLine("\n----- Welcome To Prime Number Checking -----");
            //Reading Inputs Section
            Console.Write("\nEnter any Number, To find Whether it is a Prime Number or Not : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Program Logic Section
            for (i = 2; i < input; i++)
            {
                if (input % i == 0)
                    break;
            }

            //Printing Output Section
            if (i == input)
                Console.WriteLine("\nYes, {0} is a Prime Number", input);
            else
                Console.WriteLine("\nNo, {0} is Not a Prime Number", input);

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Prime Number Checking -----

Enter any Number, To find Whether it is a Prime Number or Not : 21
No, 21 is Not a Prime Number

----- Developed by VDC -----
Press any key to continue . . .
```

The image shows a Windows command prompt window with a dark background. The title bar at the top reads "C:\WINDOWS\system32\cmd.exe". The window contains the following text: a dashed line separator, a welcome message, a prompt for a number followed by the input "21", the output "No, 21 is Not a Prime Number", another dashed line separator, the developer's name "VDC", and a prompt to press any key to continue. A vertical scrollbar is visible on the right side of the window.



## Project 9

Write a C# Code to Check given Number is Prime Number Using Functions

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number and check, if it is a Prime Number or Not using Functions

namespace ctocsprgms
{
    internal class Program
    {
        public static bool IsPrimeNumber(int input)
        {
            int i;
            for (i = 2; i < input; i++)
            {
                if (input % i == 0)
                    break;
            }

            if (i == input)
                return true;
            else
                return false;
        }

        static void Main(string[] args)
        {
            //Variable Declaration Section
            int input;

            Console.WriteLine("\n----- Welcome To Prime Number Checking -----");
            //Reading Inputs Section
            Console.Write("\nEnter any Number, To find Whether it is a Prime Number or Not : ");
            input = Convert.ToInt32(Console.ReadLine());

            //Calling Function & Printing Output Section
            if (IsPrimeNumber(input))
                Console.WriteLine("\nYes, {0} is a Prime Number", input);
            else
                Console.WriteLine("\nNo, {0} is Not a Prime Number", input);

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Find [A Power B] -----

Enter any Number, To find Its Power : 4

Enter Power Value, for 4 : 3

The Value of [4 POWER 3] is : 64

----- Developed by VDC -----

Press any key to continue . . .
```

## Project 10

Write a C# Code to Print Prime Numbers in Given Range

### Code

```
using System;
// DEV-Admin: Vihar D© (VD)
// Program: Prime Numbers in a given range.
namespace ctocsprgms
{
    internal class Program
    {
        public static bool IsPrimeNumber(int input)
        {
            int i;
            for (i = 2; i < input; i++)
            {
                if (input % i == 0)
                    break;
            }
            if (i == input)
                return true;
            else
                return false;
        }
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int a, b, i;
            Console.WriteLine("\n----- Welcome To Prime Number In A Given Range -----");
            //Reading Inputs Section
            Console.Write("\nEnter Starting Range, To find Prime Numbers : ");
            a = Convert.ToInt32(Console.ReadLine());
            Console.Write("\nEnter Ending Range, To find Prime Numbers : ");
            b = Convert.ToInt32(Console.ReadLine());

            for (i = a; i <= b; i++)
            {
                if (IsPrimeNumber(i))
                    Console.WriteLine(i);
            }
            Console.WriteLine("\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Prime Number In A Given Range -----

Enter Starting Range, To find Prime Numbers : 7

Enter Ending Range, To find Prime Numbers : 100
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97

----- Developed by VDC -----
```

## Project 11

### Write a C# Code to Print Fibonacci Series

#### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a Number (n) & Print n Fibonacci Sequence.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, i, a = 0, b = 1, c;

            Console.WriteLine("\n----- Welcome To Find Fibonacci Series -----");

            //Reading Inputs Section
            Console.Write("\nEnter Number of Terms to be Printed(n>2) : ");
            n = Convert.ToInt32(Console.ReadLine());

            Console.Write("\nFibonacci Series: 0 1");
            for (i = 1; i <= n-2; i++)
            {
                c = a + b;
                a = b;
                b = c;
                Console.Write(" {0}", c);
            }

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

C:\WINDOWS\system32\cmd.exe

----- Welcome To Find Fibonacci Series -----

Enter Number of Terms to be Printed(n>2) : 8

Fibonacci Series: 0 1 1 2 3 5 8 13

----- Developed by VDC -----

## Project 12

Write a C# Code to Check given number is Armstrong Number

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a Number and Check if it is an ARMSTRONG Number or Not.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, rem, m, result = 0;

            Console.WriteLine("\n----- Welcome To ARMSTRONG Number Identifier -----");

            //Reading Inputs Section
            Console.Write("\nEnter any Number To Check, Armstrong Number or Not : ");
            n = Convert.ToInt32(Console.ReadLine());

            //Logic Section
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                result = result + rem * rem * rem;
            }

            //Printing Output Section
            if (result == n)
                Console.WriteLine("\nYes, {0} is an ARMSTRONG Number", n);
            else
                Console.WriteLine("\nNo, {0} is Not an ARMSTRONG Number", n);

            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To ARMSTRONG Number Identifier -----

Enter any Number To Check, Armstrong Number or Not : 123

No, 123 is Not an ARMSTRONG Number

----- Developed by VDC -----
```



## Project 13

Write a C# Code to Check given number is Armstrong Number Using Functions

### Code

```
using System;
// DEV-Admin: Vihar D© (VD)
// Program: To Read a Number and Check if it is an ARMSTRONG Number or Not Using Function.
namespace ctocsprgms
{
    internal class Program
    {
        public static bool IsArmstrong(int n)
        {
            int m, result = 0, rem;
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                result = result + rem * rem * rem;
            }
            //Printing Output Section
            if (result == n)
                return true;
            else
                return false;
        }
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n;
            Console.WriteLine("\n----- Welcome To ARMSTRONG Number Identifier -----");

            //Reading Inputs Section
            Console.Write("\nEnter any Number To Check, Armstrong Number or Not : ");
            n = Convert.ToInt32(Console.ReadLine());
            //Function Calling Section
            if (IsArmstrong(n))
                Console.WriteLine("\nYes, {0} is an ARMSTRONG Number", n);
            else
                Console.WriteLine("\nNo, {0} is Not an ARMSTRONG Number", n);
            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

C:\WINDOWS\system32\cmd.exe

----- Welcome To ARMSTRONG Number Identifier -----

Enter any Number To Check, Armstrong Number or Not : 153

Yes, 153 is an ARMSTRONG Number

----- Developed by VDC -----

## Project 14

Write a C# Code to Print Armstrong Numbers in given range

### Code

```
using System;
// DEV-Admin: Vihar D© (VD)
// Program: ARMSTRONG Numbers in a given Range.
namespace ctocsprgms
{
    internal class Program
    {
        public static bool IsArmstrong(int n)
        {
            int m, result = 0, rem;
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                result = result + rem * rem * rem;
            }
            //Printing Output Section
            if (result == n)
                return true;
            else
                return false;
        }
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int a, b, i;
            Console.WriteLine("\n----- Welcome To ARMSTRONG Number Identifier -----");

            //Reading Inputs Section
            Console.Write("\nEnter Starting Range of Numbers To Check, Armstrong Number : ");
            a = Convert.ToInt32(Console.ReadLine());
            Console.Write("\nEnter Ending Range of Numbers To Check, Armstrong Number : ");
            b = Convert.ToInt32(Console.ReadLine());

            Console.Write("\n The ArmStrong Numbers in the Given Range {0} to {1} are :", a, b);
            for (i = a; i <= b; i++)
            {
                if (IsArmstrong(i))
                    Console.Write(" {0}", i);
            }
            Console.WriteLine("\n\n ----- Developed by VD© -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To ARMSTRONG Number Identifier -----

Enter Starting Range of Numbers To Check, Armstrong Number : 100

Enter Ending Range of Numbers To Check, Armstrong Number : 600

The ArmStrong Numbers in the Given Range 100 to 600 are : 153 370 371 407

----- Developed by VDC -----
```

## Project 15

Write a C# Code to Print Sum of Digits in a given number

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number from the user and Print Sum of Digits.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, m, rem, result = 0;

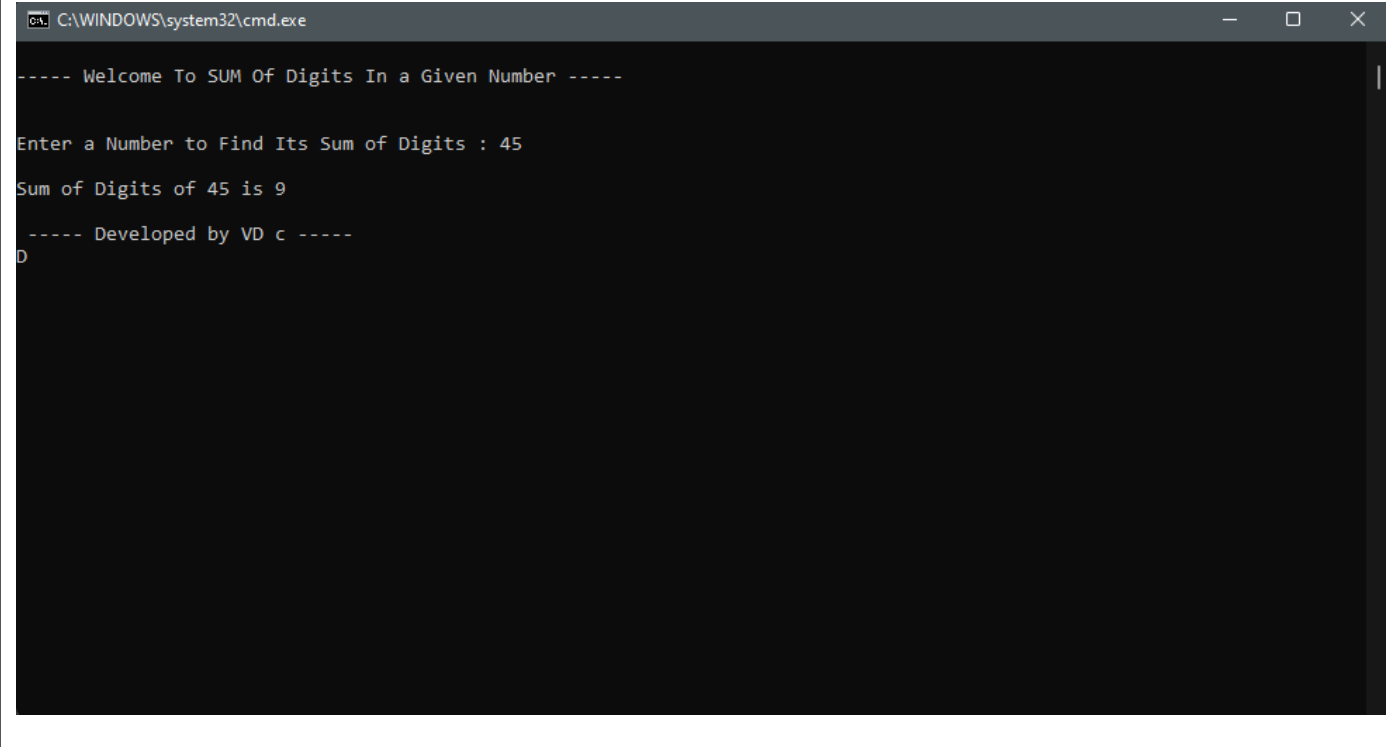
            Console.WriteLine("\n----- Welcome To SUM Of Digits In a Given Number -----");

            //Reading Inputs Section
            Console.Write("\nEnter a Number to Find Its Sum of Digits : ");
            n = Convert.ToInt32(Console.ReadLine());
            //Logic Section
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                result = result + rem;
            }

            Console.WriteLine("\nSum of Digits of {0} is {1}", n, result);

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output



```
C:\WINDOWS\system32\cmd.exe

----- Welcome To SUM Of Digits In a Given Number -----

Enter a Number to Find Its Sum of Digits : 45
Sum of Digits of 45 is 9
----- Developed by VD c -----
0
```

## Project 16

Write a C# Code to Print Reverse of a Given Number

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read a number from the user and Print Reversed format of it.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, rev = 0, rem, m;

            Console.WriteLine("\n----- Welcome To Reversing of a Given Number -----");

            //Reading Inputs Section
            Console.Write("\n\nEnter any Number to Reverse It : ");
            n = Convert.ToInt32(Console.ReadLine());
            //Logic Section
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                rev = rev * 10 + rem;
            }

            Console.WriteLine("\nReversing of {0} is {1}", n, rev);

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Reversing of a Given Number -----

Enter any Number to Reverse It : 6241

Reversing of 6241 is 1426

----- Developed by VD c -----

Press any key to continue . . .
```



## Project 17

Write a C# Code to Print given number is Palindrome Number or Not

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Read and Check If it is Palindrome Number or Not.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, rev = 0, rem, m;

            Console.WriteLine("\n----- Welcome To Palindrome Numbers -----");

            //Reading Inputs Section
            Console.Write("\nEnter any Number to Check, If It is a Palindrome ? : ");
            n = Convert.ToInt32(Console.ReadLine());
            //Logic Section
            m = n;
            while (m > 0)
            {
                rem = m % 10;
                m = m / 10;
                rev = rev * 10 + rem;
            }

            if (n == rev)
                Console.WriteLine("Yes, {0} Is a Palindrome Number", n);
            else
                Console.WriteLine("No, {0} is Not a Palindrome Number", n);

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output

C:\WINDOWS\system32\cmd.exe

----- Welcome To Palindrome Numbers -----

Enter any Number to Check, If It is a Palindrome ? : 5412145

Yes, 5412145 Is a Palindrome Number

----- Developed by VD c -----

## Project 18

Write a C# Code to Swap Numbers using Third Variable

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Swap data of Two Variables By Using Third Variable.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int a = 10, b = 20, temp;

            Console.WriteLine("\n----- Welcome To Swapping Of Two Variables Using Third Variable -----");

            Console.WriteLine("\nBefore Swap : ");
            Console.WriteLine("\t a = {0} , b = {1}",a ,b);

            //Logic Section
            temp = a;
            a = b;
            b = temp;

            //Printing Output Section
            Console.WriteLine("\nAfter Swap : ");
            Console.WriteLine("\t a = {0} , b = {1}", a, b);

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Swapping Of Two Variables Using Third Variable -----

Before Swap :
    a = 10 , b = 20

After Swap :
    a = 20 , b = 10

----- Developed by VD c -----

Press any key to continue . . .
```

## Project 19

Write a C# Code to Swap Numbers without using Third Variable

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Swap data of Two Variables Without Using Third Variable.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int a = 20, b = 10;

            Console.WriteLine("\n----- Welcome To Swapping Of Two Variables Without Third Variable -----");

            Console.WriteLine("\nBefore Swap : ");
            Console.WriteLine("\t a = {0} , b = {1}", a, b);

            //Logic Section
            a = a + b;
            b = a - b;
            a = a - b;

            //Printing Output Section
            Console.WriteLine("\nAfter Swap : ");
            Console.WriteLine("\t a = {0} , b = {1}", a, b);

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output

```
C:\WINDOWS\system32\cmd.exe

----- Welcome To Swapping Of Two Variables Without Third Variable -----

Before Swap :
    a = 20 , b = 10

After Swap :
    a = 10 , b = 20

----- Developed by VD c -----

Press any key to continue . . .
```

## Project 20

Write a C# Code to Print Stars(\*) in a - Right Angled Triangle Pattern

### Code

```
using System;

// DEV-Admin: Vihar D© (VD)
// Program: To Print Stars (*) in a Right Angled Triangle.

namespace ctocsprgms
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //Variable Declaration Section
            int n, i, j;

            Console.WriteLine("\n----- Welcome To Printing Right Angle Triangle Using Stars -----");

            Console.Write("\n Enter no. of rows to be Printed : ");
            n = Convert.ToInt32(Console.ReadLine());

            //Logic Section
            for (i = 1; i <= n; i++)
            {
                for (j = 1; j <= i; j++)
                {
                    Console.Write("* ");
                }
                Console.WriteLine("\n");
            }

            Console.WriteLine("\n\n ----- Developed by VD © -----");
            Console.ReadLine();
        }
    }
}
```

## Output

C:\Assignments\_NH\_Vihar\Day 3\ctocsprgms\ctocsprgms\bin\Debug\ctocsprgms.exe

----- Welcome To Printing Right Angle Triangle Using Stars -----

Enter no. of rows to be Printed : 7

```
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * * * *
```

----- Developed by VD c -----