

C programs to C# programs

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NB Technologies

Program 1:

Write a C# program for Multiplication of a Number

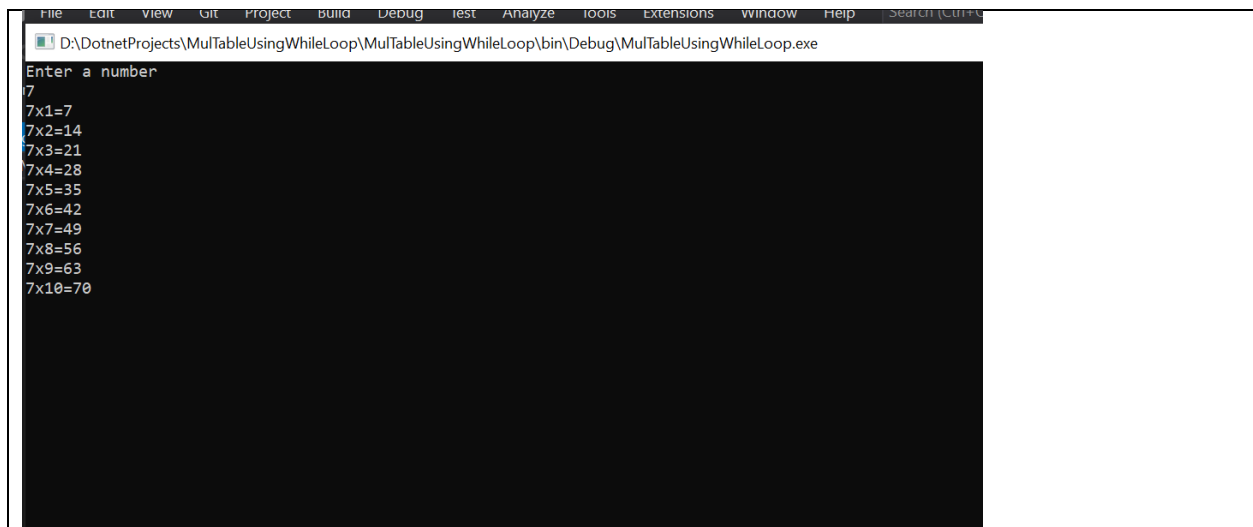
Code:

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

namespace MulTableUsinWhileLoop
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //variable declaration
            int input, i;
            Console.WriteLine("enter number");
            input = Convert.ToInt32(Console.ReadLine());

            //logic
            for (i = 1; i <= 10; i++)
            {
                Console.WriteLine(input + "x" + i + "x" + input * i);
            }
            for (i = 1; i <= 10; i++)
            {
                Console.WriteLine("{0}x{1}={2}", input, i, input * i);
            }
            Console.ReadLine();
        }
    }
}
```

Result:



```
File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search (Ctrl+F)
D:\DotnetProjects\MulTableUsingWhileLoop\MulTableUsingWhileLoop\bin\Debug\MulTableUsingWhileLoop.exe
Enter a number
7
7x1=7
7x2=14
7x3=21
7x4=28
7x5=35
7x6=42
7x7=49
7x8=56
7x9=63
7x10=70
```

Program 2:

Write a C# program to print factorial of a given number

Code:

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

namespace c2
{
    internal class Program
    {
        static void Main(string[] args)
        {
            //variable declaration
            int input, product = 1, i;
            //user input
            Console.WriteLine("Enter any number");
            input = Convert.ToInt32(Console.ReadLine());
```

```

//logic
for(i=1;i<=input;i++)
{
    product = product * i;

}

//output
Console.WriteLine(product);
Console.ReadLine();

}
}

```

Result :

 C:\Users\admin\source\repos\c2\c2\bin\Debug\c2.exe

Enter any number

3

6

Program 3:

Write a c program to print sum of N natural numbers

Code:

```

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

namespace SumOfnNaturalNumbers
{
    class Program

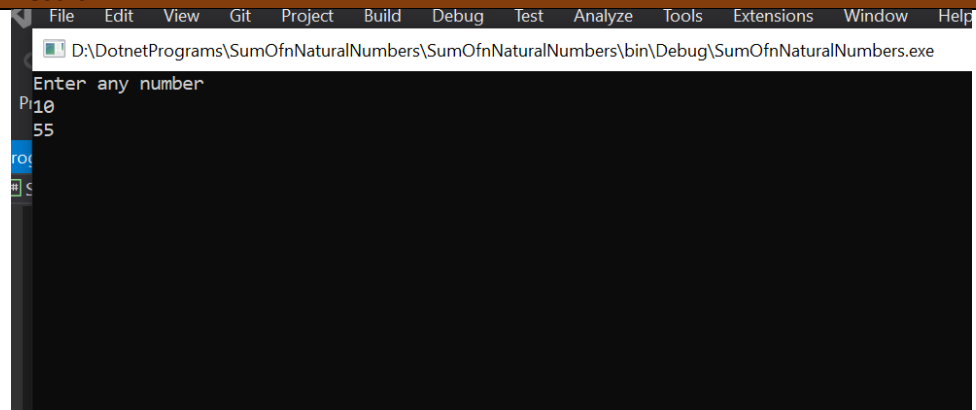
```

```

{
    static void Main(string[] args)
    {
        int i, n, sum = 0;
        Console.WriteLine("Enter any number ");
        n = Convert.ToInt32(Console.ReadLine());
        for (i = 1; i <= n; i++)
            sum += i;
        Console.WriteLine(sum);
        Console.ReadLine();
    }
}

```

Result:



Program 4:

Write a C# program to print factors of a number

Code:

```

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

namespace FactorsOfNumber
{
    class Program
    {

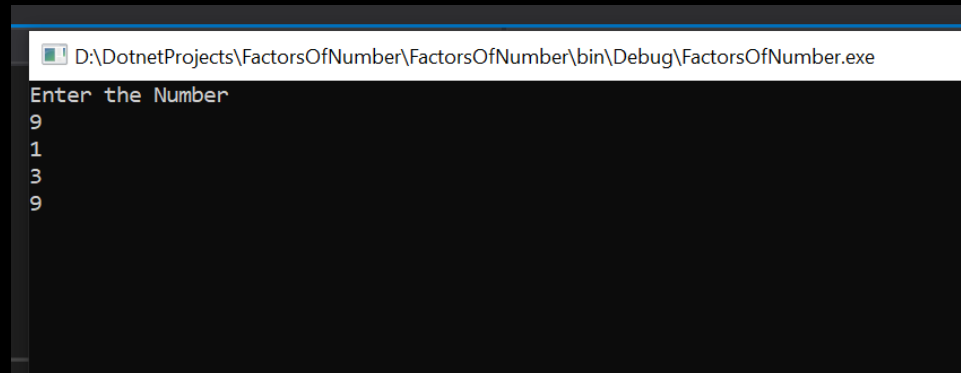
```

```

static void Main(string[] args)
{
    int n, i;
    Console.WriteLine("Enter the Number");
    n = Convert.ToInt32(Console.ReadLine());
    for(i=1;i<=n;i++)
    {
        if (n % i == 0)
        {
            Console.WriteLine(i);
        }
    }
    Console.ReadLine();
}
}

```

Result:



The screenshot shows a console window titled "D:\DotnetProjects\FactorsOfNumber\FactorsOfNumber\bin\Debug\FactorsOfNumber.exe". The prompt "Enter the Number" is displayed, followed by the input "9". The program outputs the factors of 9: "1", "3", and "9", each on a new line.

Program 5:

Write a C# program to print power of a given number

Code:

```

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

namespace PowerOfaNumber
{
    class Program

```

```

{
    static void Main(string[] args)
    {
        int x, n, p=1 ;
        Console.WriteLine("Enter first number:");
        x = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter second number:");
        n = Convert.ToInt32(Console.ReadLine());
        for (int i = 1; i <= n; i++)
            p = p * x;
        Console.WriteLine("power is " + p);
        Console.ReadLine();
    }
}

```

Result:

C:\Users\admin\source\repos\PowerOfaNumber\PowerOfaNumber\bin\Debug\PowerOfaNumber.exe

```

Enter first number:
3
Enter second number:
4
power is 81

```

Program 6:

Write a C# program to print factorial using function

Code:

```

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

namespace FactorialUsingFunction
{
    internal class Program
    {


```

```

public static int Factorial(int n)
{
    int fact = 1;
    for (int i = 1; i <=n; i++)
        fact *= i;
    return fact;
}
public static void print(int n)
{
    Console.WriteLine("Facorial of {0} = {1}", n, Factorial(n));
}
static void Main(string[] args)
{
    int n = 10;
    print(n);
    Console.ReadLine();
}
}

```

Result:



C:\Users\admin\source\repos\FactorialUsingFunction\FactorialUsingFunction\bin\Debug\FactorialUsingFunction.exe
 Facorial of 10 = 3628800

Program 7:

Write a C# program for Factorial using recursion

Code:

```

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

namespace FactorialUsingFunction
{

```

```

internal class Program
{
    public static int Factorial(int n)
    {
        if (n == 0)
            return 1;
        else
            return n * Factorial(n - 1);
    }

    public static void Print(int n)
    {
        Console.WriteLine("Factorial of {0}={1}", n, Factorial(n));
    }

    static void Main(string[] args)
    {
        int n = 10;
        Print(n);
        Console.ReadLine();
    }
}

```

Result:

Factorial of 10 =3628800

Program 8:

Write a C# program to check whether a given number is prime or not

Code:

```

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

namespace ConsoleApp1
{

```



```

class Program
{
    static void Main(string[] args)
    {
        //variable declaration
        int input, i, count = 0;
        //input
        Console.WriteLine("Enter Input");
        input = Convert.ToInt32(Console.ReadLine());
        for (i = 2; i <= input; i++)
        {
            if (input % i == 0)
                break;

        }
        if (i == input)
            Console.WriteLine("{0} is a Prime number", input);
        else
            Console.WriteLine("{0} is not a prime number", input);

        Console.ReadLine();
    }
}

```

Result:

```

Enter Input
8
8 is not a prime number

```

Program 9:

Write a C# program to print prime number using function

Code:

```

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

```

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

namespace prime_number_using_functions
{
    internal class Program
    {
        public static void Prime(int input)
        {
            int i;
            for (i = 2; i < input; i++)
            {
                if (input % i == 0)
                    break;
            }
            if (i == input)
                Console.WriteLine("{0} is prime", input);
            else
                Console.WriteLine("{0} is not a prime", input);
        }
        static void Main(string[] args)
        {
            Console.WriteLine("enter input");
            Prime(Convert.ToInt32(Console.ReadLine()));
            Console.ReadLine();
        }
    }
}
```

Result:

```
enter input
76
76 is not a prime
```

Program 10:

Write a C# program of prime in range

Code:

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


namespace PrimeInRange
{
    class Program
    {
        static bool Prime(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)
        {
            int i, a, b;
            Console.WriteLine("Enter a:");
            a = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter b:");
            b = Convert.ToInt32(Console.ReadLine());
            for (i = a; i <= b; i++)
            {
                if (Prime(i))
                    Console.WriteLine(i);
            }

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

Result:

 D:\DotnetProjects\PrimeInRange\PrimeInRange\bin\Debug\PrimeInRange.exe

Enter a:

1

Enter b:

20

2

3

5

7

11

13

17

19

Program 11:

Write a C# program to print Fibonacci series

Code:

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

namespace Fibonacci
{
    class Program
    {
        static void Main(string[] args)
        {

            int input;
            Console.WriteLine("Enter input");
            input = Convert.ToInt32(Console.ReadLine());
```

```

int next = 0;
int prev = 0;
for (int i = 0; i <= input; i++)
{
    if (next == 0)
    {
        next = 1;
    }
    else
    {
        int temp = next;
        next = next + prev;
        prev = temp;
    }
    Console.WriteLine( next);

}
Console.ReadLine();

}
}
}

```

Result:

```

Enter input
7
1
1
2
3
5
8
13
21

```

Program 12:

Write a C# program to print Armstrong number

Code:

```

using System;
using System.Collections.Generic;

```

```

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

namespace Armstrong_number
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int number, rem, sum = 0, temp;
            Console.WriteLine("enter number");
            number = Convert.ToInt32(Console.ReadLine());
            temp = number;
            while (number > 0)
            {
                rem = number % 10;
                sum = sum + (rem * rem * rem);
                number = number / 10;
            }
            if (temp == sum)
            {
                Console.WriteLine("{0} is an Armstrong number", temp);
            }
            else
            {
                Console.WriteLine("{0} is not an Armsrong number", temp);
            }
            Console.ReadLine();
        }
    }
}

```

Result:

```

enter number
153
153 is an Armstrong number

```

Program 13:

Write a C# program to print Armstrong number using function

Code:

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

namespace Armstrong_Function
{
    internal class Program
    {
        public static bool Arm(int number)
        {
            int temp, sum = 0, rem;
            temp = number;
            while (number > 0)
            {
                rem = number % 10;
                sum = sum + (rem * rem * rem);
                number = number / 10;
            }
            if (temp == sum)
            {
                return true;
            }
            else
            {
                return false;
            }
        }
        static void Main(string[] args)
        {
            int number;
            Console.WriteLine("enter number:");
            number = Convert.ToInt32(Console.ReadLine());
            if (Arm(number) == true)
                Console.WriteLine("{0} is Armstrong number", number);
            else
                Console.WriteLine("{0} is not Armstrong number", number);
            Console.ReadLine();
        }
    }
}
```

```
}  
}
```

Result:

```
enter number:  
542516  
542516 is not Armstrong number
```

Program 14:

Write a C# program to print Armstrong Number in the given range

Code:

```
using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;  
  
namespace Armstrong_range_program  
{  
    internal class Program  
    {  
        public static bool Arm(int number)  
        {  
            int temp, sum = 0, rem;  
            temp = number;  
            while (number > 0)  
            {  
                rem = number % 10;  
                sum = sum + (rem * rem * rem);  
                number = number / 10;  
            }  
            if (temp == sum)  
            {  
                return true;  
            }  
            else
```



```

    {
        return false;
    }
}
public static void Main(string[] args)
{
    int a, b;
    Console.WriteLine("enter a:");
    a = Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("enter b:");
    b = Convert.ToInt32(Console.ReadLine());
    for (int i = a; i <= b; i++)
    {
        if (Arm(i))
            Console.WriteLine(i);
    }
    Console.ReadLine();
}
}
}

```

Result:

```

enter a:
12
enter b:
14523
153
370
371
407

```

Program 15:

Write a C# program to print sum of digits in a number

Code:

```

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

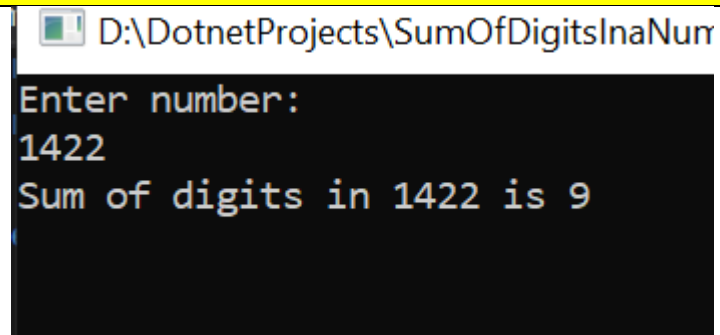
namespace Digitsum_program
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int rem, sum = 0, number;
            Console.WriteLine("Enter number:");
            number = Convert.ToInt32(Console.ReadLine());
            int temp = number;
            while (number > 0)
            {
                rem = number % 10;
                sum = sum + rem;
                number = number / 10;
            }
            Console.WriteLine("Sum of digits in {0} is {1}", temp, sum);

            Console.ReadLine();

        }
    }
}

```

Result:



```

D:\DotnetProjects\SumOfDigitsInaNur
Enter number:
1422
Sum of digits in 1422 is 9

```

Program 16:

Write a C# program to reverse a number

Code:

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

namespace ReverseOfaNumber
{
    class Program
    {
        static void Main(string[] args)
        {
            int n, temp, rem, rev = 0;
            Console.WriteLine("Enter number");
            n = Convert.ToInt32(Console.ReadLine());
            temp = n;
            while (n > 0)
            {
                rem = n % 10;
                rev = (rev * 10) + rem;
                n = n / 10;
            }

            Console.WriteLine("The reverse of {0} is {1}", temp, rev);

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

Result:

```
Enter number
563454
The reverse of 563454 is 454365
```

Program 17:

Write a C# program to check whether given number is palindrome or not

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace Palindrome
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int n, temp, rem, rev = 0;
            Console.WriteLine("Enter number");
            n = Convert.ToInt32(Console.ReadLine());
            temp = n;
            while (n > 0)
            {
                rem = n % 10;
                rev = (rev * 10) + rem;
                n = n / 10;
            }
            if (temp == rev)
                Console.WriteLine("The given number {0} is palindrome", temp);
            else
                Console.WriteLine("The given number {0} is not a palindrome", temp);
            Console.ReadLine();
        }
    }
}
```

Result:

```
Enter number
16361
The given number 16361 is palindrome
```

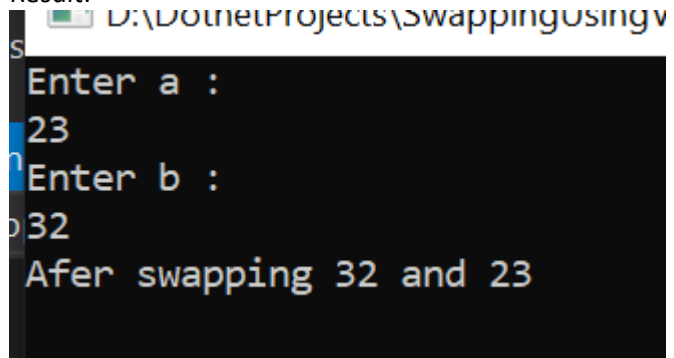
Program 18:

Write a c# program for swapping using variable

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace SwappingUsingVariable
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int temp, a, b;
            Console.WriteLine("Enter a :");
            a = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter b :");
            b = Convert.ToInt32(Console.ReadLine());
            temp = a;
            a = b;
            b = temp;
            Console.WriteLine("Afer swapping {0} and {1}", a, b);
            Console.ReadLine();
        }
    }
}
```

Result:



```
D:\DotnetProjects\SwappingUsingVariable
Enter a :
23
Enter b :
32
Afer swapping 32 and 23
```

Program 19:

Write a C# program to swap numbers without using variable

Code:

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

```

using System.Text;
using System.Threading.Tasks;
namespace swap_without_variable
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int a, b;
            Console.WriteLine("Enter a:");
            a = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter b:");
            b = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Before swapping {0} {1}", a, b);
            a = a + b;
            b = a - b;
            a = a - b;
            Console.WriteLine("After swapping {0} {1}", a, b);
            Console.ReadLine();
        }
    }
}

```

Result:

```

Enter a:
23
Enter b:
54
Before swapping 23 54
After swapping 54 23

```

Program 20:

Write a C# program to print star pattern

Code:

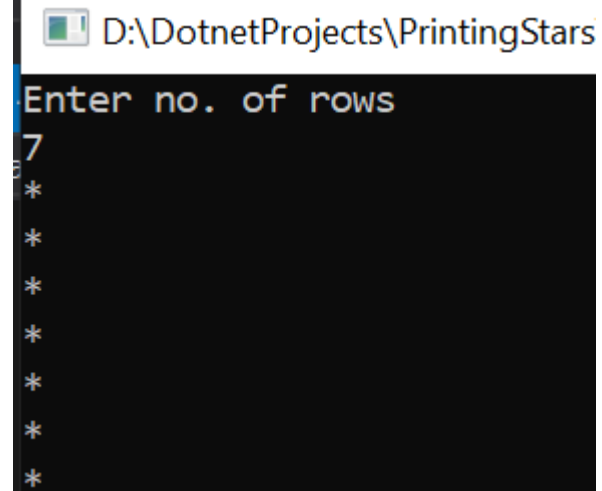
```

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

```

```
namespace PrintingStars
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int n, i, j;
            Console.WriteLine("Enter no. of rows");
            n = Convert.ToInt16(Console.ReadLine());
            for (i = 1; i <= n; i++)
            {
                Console.WriteLine("*");
            }
            Console.ReadLine();
        }
    }
}
```

Result:



The screenshot shows a console window titled "D:\DotnetProjects\PrintingStars". The prompt "Enter no. of rows" is displayed, followed by the user input "7". Below the input, seven asterisks are printed, one per line, representing the output of the program.