

BRANCHING - 1:

1. C# Sharp program to accept two integers and check whether they are equal or not:

```
D:\.NET Framework\ConsoleApp\Branching_1\Equalornot\Equalornot\bin\Debug\Equalornot.exe

Check whether two integers are equal or not :
-----

Input 1st number: 2
Input 2nd number: 2
2 and 2 are equal.
```

2. C# program to check whether a given number is even or odd:

```
D:\.NET Framework\ConsoleApp\Branching_1\evenorodd\evenorodd\bin\Debug\evenorodd.exe

Check whether a numberr is even orodd :
-----

Input an integer: 14
14 is an even integer.
```

3. C# Sharp program to check whether a given number is positive or negative:

```
D:\.NET Framework\ConsoleApp\Branching_1\positiveornegative\positiveornegative\bin\Debug\positiveornegative.exe

Check whether a numberr is positive or negative :
-----

Input an integer: 4
4 is a positive number.
```

4. C# Sharp program to find whether a given year is a leap year or not:

```
D:\.NET Framework\ConsoleApp\Branching_1\findleapyear\findleapyear\bin\Debug\findleapyear.exe

Check whether a given year is a leap year or not :
-----

Input an year: 2000
2000 is a leap year.
```

5. C# Sharp program to read age of a candidate and determine whether it is eligible for casting his/her own vote:

```
D:\.NET Framework\ConsoleApp\Branching_1\castingtovote\castingtovote\bin\Debug\castingtovote.exe

Determine a specific age is eligible for casting the vote:
-----

Input the age of the candidate: 19
Congratulational ! You are eligible for casting your vote.
```

6. C# Sharp program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0:

```
D:\.NET Framework\ConsoleApp\Branching_1\readanddisplay\readanddisplay\bin\Debug\readanddisplay.exe

Display the value of n is 1,0,and -1 for the value of m:
-----

Input the value of m: 4
The value of m = 4
The value of n = 1
```

7. C# Sharp program to accept the height of a person in centimeter and categorize the person according to their height:

```
D:\.NET Framework\ConsoleApp\Branching_1\heightandcategorizeofperson\heightandcategorizeofperson\bin\Debug\heightandcategorizeofperson.exe

Accept the height of aperson in centimeter and categorize them:
-----

Input the height of the person(in centimeter): 160
The person is average heighted
```

8.C# program to find the largest of three numbers:

```
D:\.NET Framework\ConsoleApp\Branching_1\largestofthreeno\largestofthreeno\bin\Debug\largestofthreeno.exe

Find the largest of three numbers:
-----

Input the 1st number: 3
Input the 2nd number: 4
Input the 3rd number: 5
The 3rd Number is the greatest among three.
```

9.C# program to accept a coordinate point in an XY coordinate system and determine in which quadrant the coordinate point lies:

```
D:\.NET Framework\ConsoleApp\Branching_1\findthequadrant\findthequadrant\bin\Debug\findthequadrant.exe

Find the quadrant in which the coordinate point lies:
-----

Input the value of X coordinate: 5
Input the value of Y coordinate: 5
The coordinate point (5,5) lies in the First quadrant.
```

10.C# program to find the eligibility of admission for a professional course based on the following criteria:

```
D:\.NET Framework\ConsoleApp\Branching_1\findeligibilityforadmission\findeligibilityforadmission\bin\Debug\findeligibilityforadmission.exe

Find eligibility for admission:
-----

Eligibility Criteria:
Marks in Maths >= 65
Marks in Phy >= 55
Marks in Chem >= 50
and Total in all three subject >=180
or Total in Maths and Physics >=140
-----

Input the marks obtained in Physics: 60
Input the marks obtained in Chemistry: 60
Input the marks obtained in Mathematics: 60
Total marks of Maths,Physics and Chemistry : 180
Total marks of Maths and Physics: 120
The candidate is not eligible.
```

BRANCHING - 2:

1. C# Sharp which is a Menu-Driven Program to perform a simple calculation.-Switch Case:

```
D:\.NET Framework\ConsoleApp\Branching_2\simplecalculation\simplecalculation\bin\Debug\simplecalculation.exe

A menu driven program for a simple calculator:
-----

Enter the first Integer :2
Enter the second Integer :4

Here are the options :
1-Addition.
2-Substraction.
3-Multiplication.
4-Division.
5-Exit.

Input your choice :1
The Addition of  2 and 4 is: 6
```

2. C# Sharp which is a Menu-Driven Program to compute the area of the various geometrical shape:

```
D:\.NET Framework\ConsoleApp\Branching_2\areaofgeometrical\areaofgeometrical\bin\Debug\areaofgeometrical.exe

A menu driven program to compute the area of various geometrical shape:
-----

Input 1 for area of circle
Input 2 for area of rectangle
Input 3 for area of triangle
Input your choice : 2
Input length  of the rectangle : 5
Input  width of the rectangle : 4
The area is : 20
```

3. C# Sharp to read any Month Number in integer and display the number of days for this month:

```
D:\.NET Framework\ConsoleApp\Branching_2\nooftdaysinmonth\nooftdaysinmonth\bin\Debug\nooftdaysinmonth.exe

Read month number and display number of days for that month:
-----

Input Month No : 5
Month  have 31 days.
```

4.C# Sharp to read any Month Number in integer and display Month name in the word:

```
D:\.NET Framework\ConsoleApp\Branching_2\displaymonthname\displaymonthname\bin\Debug\displaymonthname.exe

Read month number and display month name:
-----

Input Month No : 5
May
```

5.C# Sharp to read any digit, display in the word:

```
D:\.NET Framework\ConsoleApp\Branching_2\readanddisplaydigit\readanddisplaydigit\bin\Debug\readanddisplaydigit.exe

Readt digit and display in word:
-----

Input Digit(0-9) : 7
Seven
```

6.C# Sharp to read any day number in integer and display day name in the word:

```
D:\.NET Framework\ConsoleApp\Branching_2\readanddisplayname\readanddisplayname\bin\Debug\readanddisplayname.exe

Accept day number and display its equivalent day name in word:
-----

Input Day No : 5
Friday
```

7.C# Sharp to accept a grade and display the equivalent description:

```
D:\.NET Framework\ConsoleApp\Branching_2\acceptanddisplaygrade\acceptanddisplaygrade\bin\Debug\acceptanddisplaygrade.exe

Accept a grade and display equivalent description:
-----

Input the grade :a
You have chosen : Average
```

8.C# Sharp to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer. The charge are as follow:

```
D:\.NET Framework\ConsoleApp\Branching_2\calculateandprintbill\calculateandprintbill\bin\Debug\calculateandprintbill.exe

Calculate Electricity Bill:
-----

Input Customer ID :1
Input the name of the customer :jaga
Input the unit consumed by the customer : 300

Electricity Bill
Customer IDNO           :1
Customer Name           :jaga
Unit Consumed           :300
Amount Charges @Rs. 1.5 per unit :450
Surcharge Amount        :67.5
Net Amount Paid By the Customer :517.5
```

9.C# Sharp program to calculate profit and loss on a transaction:

```
D:\.NET Framework\ConsoleApp\Branching_2\profitandloss\profitandloss\bin\Debug\profitandloss.exe

Calculate profit and loss:
-----

Input Cost Price: 40
Input Selling Price: 60

You can booked your profit amount : 20
```


LOOPING - 1:

1. C# Sharp to display the first 10 natural numbers:

```
D:\.NET Framework\ConsoleApp\Looping_1\displaynaturalno\displaynaturalno\bin\Debug\displaynaturalno.exe

Display the first 10 natural numbers:
-----

The first 10 natural number is:
1 2 3 4 5 6 7 8 9 10
```

2.C# Sharp program to find the sum of first 10 natural numbers:

```
D:\.NET Framework\ConsoleApp\Looping_1\sumofnaturalno\sumofnaturalno\bin\Debug\sumofnaturalno.exe

Find the sum of first 10 natural numbers:
-----

The first 10 natural number is:
1 2 3 4 5 6 7 8 9 10
The sum is 55
```

3.C# Sharp to display n terms of natural number and their sum:

```
D:\.NET Framework\ConsoleApp\Looping_1\displaytermssum\displaytermssum\bin\Debug\displaytermssum.exe

Display n terms of natural number and their sum:
-----

Input Value of terms:
5

The first 5 natural number is :
1 2 3 4 5
The sum of Natural Number upto 5 terms : 15
```

4. C# Sharp to read 10 numbers from keyboard and find their sum and average:

```
D:\.NET Framework\ConsoleApp\Looping_1\sumandaverage\sumandaverage\bin\Debug\sumandaverage.exe

Find Sum and Average of Numbers:
-----

Input the 10 numbers:
Number-1 :2
Number-2 :4
Number-3 :6
Number-4 :8
Number-5 :10
Number-6 :12
Number-7 :14
Number-8 :16
Number-9 :18
Number-10 :20
The sum of 10 no is : 110
The Average is : 11
```

5. C# Sharp to display the cube of the number upto given an integer:

```
D:\.NET Framework\ConsoleApp\Looping_1\cubeofnumber\cubeofnumber\bin\Debug\cubeofnumber.exe

Display the Cube of Number upto given integer:
-----

Input number of terms: 3
Number is : 1 and cube of the 1 is : 1
Number is : 2 and cube of the 1 is : 8
Number is : 3 and cube of the 1 is : 27
_
```

6. C# Sharp to display the multiplication table of a given integer:

```
D:\.NET Framework\ConsoleApp\Looping_1\displaymultiplestable\displaymultiplestable\bin\Debug\displaymultiplestable.exe

Display the Multiplication table of a given integer:
-----

Input the number (Table to be calculated) : 2
2 X 1 = 2
2 X 2 = 4
2 X 3 = 6
2 X 4 = 8
2 X 5 = 10
2 X 6 = 12
2 X 7 = 14
2 X 8 = 16
2 X 9 = 18
2 X 10 = 20
```


7. C# Sharp to display the multiplication table vertically from 1 to n:

```
D:\NET Framework\ConsoleApp\Looping_1\displaymultiplesvertical\displaymultiplesvertical\bin\Debug\displaymultiplesvertical.exe

Display the Multiplication table vertically from 1 to n:
-----
Input upto the number starting from 1 : 5
Multiplication table from 1 to 5
1 X 1 = 1, 2 X 1 = 2, 3 X 1 = 3, 4 X 1 = 4, 5 X 1 = 5,
1 X 2 = 2, 2 X 2 = 4, 3 X 2 = 6, 4 X 2 = 8, 5 X 2 = 10,
1 X 3 = 3, 2 X 3 = 6, 3 X 3 = 9, 4 X 3 = 12, 5 X 3 = 15,
1 X 4 = 4, 2 X 4 = 8, 3 X 4 = 12, 4 X 4 = 16, 5 X 4 = 20,
1 X 5 = 5, 2 X 5 = 10, 3 X 5 = 15, 4 X 5 = 20, 5 X 5 = 25,
1 X 6 = 6, 2 X 6 = 12, 3 X 6 = 18, 4 X 6 = 24, 5 X 6 = 30,
1 X 7 = 7, 2 X 7 = 14, 3 X 7 = 21, 4 X 7 = 28, 5 X 7 = 35,
1 X 8 = 8, 2 X 8 = 16, 3 X 8 = 24, 4 X 8 = 32, 5 X 8 = 40,
1 X 9 = 9, 2 X 9 = 18, 3 X 9 = 27, 4 X 9 = 36, 5 X 9 = 45,
1 X 10 = 10, 2 X 10 = 20, 3 X 10 = 30, 4 X 10 = 40, 5 X 10 = 50,
```

8. C# Sharp to display the n terms of odd natural number and their sum:

```
D:\NET Framework\ConsoleApp\Looping_1\oddnumbersum\oddnumbersum\bin\Debug\oddnumbersum.exe

Display the n terms of odd natural number and their sum
-----
Input number of terms: 5
The odd numbers are :1 3 5 7 9
The Sum of odd Natural Number upto 5 terms : 25
```

9.C# Sharp to display the pattern like right angle triangle using an asterisk:

```
D:\NET Framework\ConsoleApp\Looping_1\displaypatternasterisk\displaypatternasterisk\bin\Debug\displaypatternasterisk.exe

Display the pattern like right angle using asterisk:
-----
Input number of rows: 5
*
**
***
****
*****
```

10. C# Sharp to display the pattern like right angle triangle with a number:

```
D:\NET Framework\ConsoleApp\Looping_1\displaypatternno\displaypatternno\bin\Debug\displaypatternno.exe

Display the pattern as right angle using number:
-----
Input number of rows: 5
1
12
123
1234
12345
```

LOOPING - 2:

1. C# to display the pattern like a diamond. The pattern is as follows :

```
D:\.NET Framework\ConsoleApp\Looping_2\displaypatterndiamond\displaypatterndiamond\bin\Debug\displaypatterndiamond.exe

Display the pattern like diamond:
-----

Input number of rows (half of the diamond) :5

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

2. C# Sharp to find the prime numbers within a range of numbers:

```
D:\.NET Framework\ConsoleApp\Looping_2\primenumber\primenumber\bin\Debug\primenumber.exe

Find the prime numbers within a range of numbers:
-----

Input starting number of range: 1
Input ending number of range : 50
The prime numbers between 1 and 50 are :
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47
```

3. C# Sharp to display the such a pattern for n number of rows using a number which will start with the number 1 and the first and a last number of each row will be 1

```
D:\.NET Framework\ConsoleApp\Looping_2\displaypatternones\displaypatternones\bin\Debug\displaypatternones.exe

Display the pattern in which first and last number of each row will be 1:
-----

Input number of rows : 5

  1
 121
12321
1234321
123454321
```

4. C# Sharp to display the number in reverse order:

```
D:\.NET Framework\ConsoleApp\Looping_2\displaynoinreverse\displaynoinreverse\bin\Debug\displaynoinreverse.exe

Display the number in reverse order:
-----

Input a number: 123
The number in reverse order is : 321
```

5. C# Sharp to check whether a number is a palindrome or not:

```
D:\.NET Framework\ConsoleApp\Looping_2\palindromeornot\palindromeornot\bin\Debug\palindromeornot.exe

Check whether a number is a palindrome or not:
-----

Input a number: 12321
12321 is a palindrome number.
```

6. C# Sharp to find the number and sum of all integer between 100 and 200 which are divisible by 9:

```
D:\.NET Framework\ConsoleApp\Looping_2\divisiblebynine\divisiblebynine\bin\Debug\divisiblebynine.exe

Find the number and sum of all integer between 100 and 200, divisible by 9:
-----

Numbers between 100 and 200, divisible by 9 :
108 117 126 135 144 153 162 171 180 189 198

The sum : 1683
```

7. C# Sharp to convert a binary number into a decimal number without using array, function and while loop:

```
D:\.NET Framework\ConsoleApp\Looping_2\convertbintodecimal\convertbintodecimal\bin\Debug\convertbintodecimal.exe

Convert a binary to decimal using for loop and without using array:
-----

Input a binary number :1010101

The Binary Number : 1010101
The equivalent Decimal Number : 85
```

8.C# Sharp program to find HCF (Highest Common Factor) of two numbers:

```
D:\.NET Framework\ConsoleApp\Looping_2\findhcf\findhcf\bin\Debug\findhcf.exe

Determine the HCF of two numbers:
-----

Input 1st number for HCF: 28
Input 2nd number for HCF: 48

HCF of 28 and 48 is : 4
```

9.C#Sharp program to display alphabet pattern like A with an asterisk:

```
D:\.NET Framework\ConsoleApp\Looping_2\alphapatternwithasterisk\alphapatternwithasterisk\bin\Debug\alphapatternwithasterisk.exe

Display the pattern like 'A' with asterisk.
-----

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

10.C#Sharp program to display alphabet pattern like D with an asterisk:

```
D:\.NET Framework\ConsoleApp\Looping_2\alphabetpatternnd\alphabetpatternnd\bin\Debug\alphabetpatternnd.exe

Display the pattern like 'D' with an asterisk:
-----

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