## Laxmi Chariable Trust's

### Sheth L.U.J College of Arts & Sir M.V. College of Science and Commerce

### Department of Information Technology (Bsc.IT Semester V)

# Advanced Web Programing

| | |
|---|---|
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| Class : TY.Bsc.IT/Sem. V | Batch : 01 |
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**###################### PRACTICAL NO. : 01(A) ##########################**

**Que)** Write a Console Application that obtains four integer value the user product.

Hint: You may recall that the **Convert.ToDouble ()** command was use to convert the input from the console to a double; the equivalent command to convert from a string to an int is

**Convert.ToInt32 ().**

## Code:

```
using System;
 public class program
{
 public static void Main()
 {
 int num1, num2,num3,num4,prod;
 Console.Write("Enter number 1: ");
 num1 = Int32.Parse(Console.ReadLine());
 Console.Write("Enter number 2: ");
 num2 = Convert.ToInt32(Console.ReadLine());
 Console.Write("Enter number 3: ");
```

```
num3 = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter number 4: ");
num4 = Convert.ToInt32(Console.ReadLine());
prod = num1 * num2 * num3 * num4;
Console.WriteLine(num1 + "*" + num2 + "*" + num3 + "*" + num4 + "=" + prod);
}}
```

## Output:-

```
Enter number 1: 9
Enter number 2: 8
Enter number 3: 6
Enter number 4: 5
9*8*6*5=2160
```

**###################### Practical_1B############################**

**Que)** If you have two integers stored in variables var1 and var2, what Boolean test can you perform to see if one or the other (but not both) is greater than 10?

## Code:

```
using System;
public class program
{
public static void Main()
{
int var1, var2;
Console.Write("Enter number 1: ");
var1 = Int32.Parse(Console.ReadLine());
Console.Write("Enter number 2: ");
```

```
var2 = Convert.ToInt32(Console.ReadLine());
if ((var1 > 12 && var2 <= 12) || (var2 > 15 && var1 <= 15));
{
Console.WriteLine("Boolean test succedded \n Both number are not >15");
}
}
}
```

**Output:-**

```
Enter number 1: 6
Enter number 2: 9
Boolean test succedded
 Both number are not >15
```

**###################### Practical_1c ########################**

**Que)** Write an application that includes the logic from Exercise 1, obtains two numbers from the user, and displays them, but rejects any input where both numbers are greater than 10 and asks for two new numbers.

**Code:-**

```
using System;
public class program
{
public static void Main()
{
int var1, var2;
        label1:
        Console.Write("Enter number 1 : ");
```

```
var1 = Int32.Parse(Console.ReadLine());
Console.Write("Enter number 2 : ");
var2 = Convert.ToInt32(Console.ReadLine());
if((var1 > 20 && var2 > 20))
{
  Console.WriteLine("Both number are greater than 20 are not allowed");
        goto label1;
}
else
{
         Console.WriteLine("Number 1:"+var1);
         Console.WriteLine("Number 2:"+var2);
}}}
```

**Output:-**

```
Enter number 1 : 22
Enter number 2 : 23
Both number are greater than 20 are not allowed
Enter number 1 : 10
Enter number 2 : 22
Number 1:10
Number 2:22
```

**####################### Practical_1d ############################**

**Que)** Write a console application that places double quotation marks around each word in a string.

## Code:-

```
using System;

public class program

{

public static void Main(string[] args)

 {

 string str1;

 Console.WriteLine("Enter your string 1: ");

 str1 = Console.ReadLine();

 string[] words = str1.Split(' ');


 for(int i=0; i<words.Length; i++)

 {

          Console.Write("\"" + words[i] + "\"");

 }}}
```

## Output:-

```
Enter your string 1:
We can and we will
"We""can""and""we""will"
```

**######################## Practical_1F ############################**

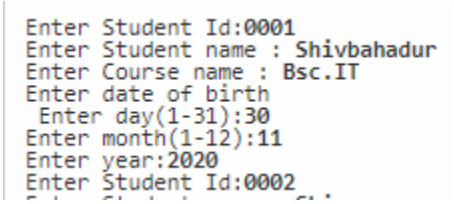
**AIM:** Write an application that receives the following information from a set of students: Student Id: Student Name: Course Name: Date of Birth: The application should also display the information of all the students once the data is Entered. Implement this using an Array of Structures.

## Code:-

```
using System;

public class Program

{

        struct Student

 {

 public string studid, name, cname;

 public int day, month, year;

 }

public static void Main(string[] args)

 {

 Student[] s = new Student[5];

 int i;

 for (i = 0; i < 5; i++)

 {

 Console.Write("Enter Student Id:");

 s[i].studid = Console.ReadLine();

 Console.Write("Enter Student name : ");

 s[i].name = Console.ReadLine();

 Console.Write("Enter Course name : ");

 s[i].cname = Console.ReadLine();

 Console.Write("Enter date of birth\n Enter day(1-31):");

 s[i].day = Convert.ToInt32(Console.ReadLine());
```

```
Console.Write("Enter month(1-12):");
s[i].month = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter year:");
s[i].year = Convert.ToInt32(Console.ReadLine());
}
Console.WriteLine("\n\nStudent's List\n");
        for (i = 0; i < 5; i++)
{
Console.WriteLine("\nStudent ID : " + s[i].studid);
Console.WriteLine("\nStudent name : " + s[i].name);
Console.WriteLine("\nCourse name : " + s[i].cname);
Console.WriteLine("\nDate of birth(dd-mm-yy) : " + s[i].day + "-" + s[i].month +
"-" + s[i].year);
} } }
```

## Output:-



**###################### Practical_1G ############################**

**Que)** AIM: Write programs using conditional statements and loops:

**I)** Generate Fibonacci series.

## Code:_

```
using System;
public class Program
{
public static void Main()
{
 int num1=0,num2=1,num3,num4,num,counter;
 Console.Write ("Upto how many number you want fibonacci series:");
 num=int.Parse(Console.ReadLine());
 counter=3;
 Console.Write(num1+"\t"+num2);
 while(counter<=num)
 {
 num3 = num1 + num2;
if (counter >= num)
 break;
 Console.Write("\t" + num3);
 num1 = num2;
 num2 = num3;
 counter++;
}}}
```

## Output:-

```
Upto how many number you want fibonacci series:5
0    1    1    2
```

**######################## Practical_1G ############################**

II**)** Generate various patterns (triangles, diamond and other patterns) with numbers.

## Code 1:-

```
using System;
public class Program
{
public static void Main()
{
int row, col;
for(row = 1; row<=5; row++)
{
for(col = 1; col<=row; col++)
Console.Write(col);
Console.WriteLine();
}}}
```

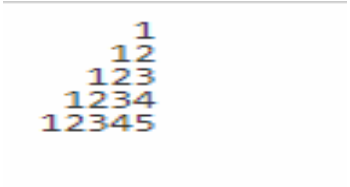
## Output:-

```
1
12
123
1234
12345
```

## Code 2:-

```
using System;
public class Program
{
public static void Main()
{
int row, sp, col;
for(row = 1; row<=5; row++)
{
for (sp = 1; sp <= 5 - row; sp++)
{
Console.Write(' ');
}
for(col = 1; col<=row; col++)
{
Console.Write(col);
}
Console.WriteLine();
}}}
```

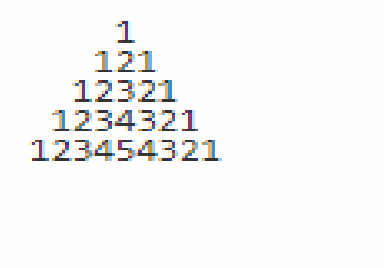
## Output:-



## Code 3:-

```
using System;
 public class Program
{
public static void Main()
{
int row, sp, col,revcol;
 for (row = 1; row <= 5; row++)
 {
 for (sp = 1; sp <= 5 - row; sp++)
 {
 Console.Write(' ');
 }
 for (col = 1; col <= row; col++)
 {
 Console.Write(col);
 }
 for (revcol = col - 2; revcol >= 1; revcol--)
 {
 Console.Write(revcol);
 }
 Console.WriteLine();
 } } }
```

## Output:-




**Code 4:-**

```
using System;
public class Program
{
public static void Main()
{
int row, sp, col, revcol;
 for (row = 1; row <= 5; row++) {
 for (sp = 1; sp <= 5 - row; sp++)
 {
 Console.Write(' ');
 }
 for (col = 1; col <= row; col++)
 {
 Console.Write(col);
 }
 for (revcol = col - 2; revcol >= 1; revcol--)
 { Console.Write(revcol); }
 Console.WriteLine();
 }
 for (row = 4; row >= 1; row--) {
 for (sp = 1; sp <= 5 - row; sp++)
```

```
{
Console.Write(' ');
}
for (col = 1; col <= row; col++)
{
Console.Write(col);
}
for (revcol = col - 2; revcol >= 1; revcol--)
{ Console.Write(revcol); }
Console.WriteLine();
} } }
```

**Output:-**

```
    1
   121
  12321
 1234321
123454321
 1234321
  12321
   121
    1
```

**Code 5:-**

```
using System;
public class Program
{
public static void Main()
{
 int row, col,sp,reverse;
 for (row = 1; row <= 5; row++)
 {
```

```
for (sp = 1; sp <= 5 - row; sp++)
Console.Write(" ");
for (col = 1; col <= row; col++)
if (col == 1)
Console.Write("*");
else
Console.Write(" ");
for (reverse = col - 2; reverse >= 1; reverse--)
if (reverse == 1)
Console.Write("*");
else
Console.Write(" ");
Console.WriteLine();
}
for (row = 4; row >=1; row--)
{
for (sp = 1; sp <= 5 - row; sp++)
Console.Write(" ");
for (col = 1; col <= row; col++)
if (col == 1)
Console.Write("*");
else
Console.Write(" ");
for (reverse = col - 2; reverse >= 1; reverse--)
if (reverse == 1)
Console.Write("*");
else
```

```
 Console.Write(" ");
 Console.WriteLine();
 }
 } }
```

## Output:-

**###################### Practical_1G ############################**

**III)** Test for prime numbers.

## Code:-

```
using System;
public class Program
{
public static void Main()
{
int num, counter;
 Console.Write("Enter number:");
 num = int.Parse(Console.ReadLine());
 for (counter = 2; counter <= num / 2; counter++)
 {
 if ((num % counter) == 0)
```

```
break;
}
if (num == 1)
Console.WriteLine(num + "is neither prime nor composite");
else if(counter<(num/2))
Console.WriteLine(num+"is not prime number");
else
Console.WriteLine(num+"is prime number");
}
}
```

## Output:-

```
Enter number:7
7is prime number
```

**###################### Practical_1G ############################**

**IV)** Generate prime numbers.

## Code:-

```
using System;
public class Program
{
public static void Main()
{
```

```
int counter, lowerlimit, upperlimit, limitCounter;
Console.Write("Enter lowerlimit:");
lowerlimit = int.Parse(Console.ReadLine());
Console.Write("Enter upperlimit:");
upperlimit = int.Parse(Console.ReadLine());
Console.WriteLine("Prime number between " + lowerlimit + "and " + upperlimit + " are ");
for (limitCounter = lowerlimit; limitCounter <= upperlimit; limitCounter++)
{
for (counter = 2; counter <= limitCounter / 2; counter++)
{
if ((limitCounter % counter) == 0)
break;
}
if (limitCounter == 1)
Console.WriteLine(limitCounter + "is neither prime nor composite");
else if (counter >= (limitCounter / 2))
Console.WriteLine(limitCounter + "\t");
}
Console.WriteLine();
}
}
```

**Output:-**

```
Enter lowerlimit:5
Enter upperlimit:25
Prime number between 5and 25 are
5
7
11
13
17
19
23
```

**###################### Practical_1G ##########################**

**V)** Reverse a number and find sum of digits of a number.

## Code:-

```
using System;
public class Program
{
public static void Main()
{
 int num,actualnumber,revnum=0,digit,sumDigits=0;
 Console.Write("Enter number:");
 num = int.Parse(Console.ReadLine());
 actualnumber = num;
 while (num > 0)
 {
 digit = num % 10;
 revnum = revnum * 10 + digit;
 sumDigits=sumDigits+digit;
 num = num / 10;
 }
 Console.WriteLine("Reverse of " + actualnumber + "=" + revnum);
```

```
Console.WriteLine("Sum of its digits:" + sumDigits);
}
}
```

## Output:-

```
Enter number:25
Reverse of 25=52
Sum of its digits:7
```

**###################### Practical_1G ############################**

**VI)** Test for vowels.

## Code:-

```
using System;
public class program
  {
     public static void Main(string[] args)
     {
        char ch;
        Console.Write("Enter a character: ");
        ch = Convert.ToChar(Console.ReadLine().ToLower());
        int i=ch;
        if(i>=48 && i<=57)
        {
         Console.Write("You entered a number, Please enter an alpahbet.");
         }
        else
```

```
{
switch (ch)
{
    case 'a':
    case 'A':
    Console.WriteLine("A Alphabet is vowel");
    break;
    case 'e':
    case 'E':
    Console.WriteLine("A Alphabet is vowel");
     break;
     case 'i':
     case 'I':
     Console.WriteLine("A Alphabet is vowel");
     break;
     case 'o':
     case 'O':
     Console.WriteLine("A Alphabet is vowel");
     break;
     case 'u':
     case 'U':
     Console.WriteLine("A Alphabet is vowel");
     break;
     default:
     Console.WriteLine("A Alphabet is not a vowel");
      break;
      }
```

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

## Output:-

```
Enter a character: a
A Alphabet is vowel
>
```

**###################### Practical_1G ############################**

**AIM:** Write programs using conditional statements and loops: Use of foreach loop with arrays.

**VII)** Use of foreach loop with arrays.

## Code:-

```
using System;
public class Program
 {
 public static void Main(string[] args)
 {
 string[] str = { "Shield", "Evaluation", "DX" };
 foreach (String s in str)
 {
 Console.WriteLine(s);
 }}}
```

## Output:-

```
Shield
Evaluation
DX
```

**THANK YOU**