

```

'1. find area and circumference of circle (Using Variable, constant, and arithmetic operator)
Option Strict On ' enable type checking
Option Explicit On ' enable variable declaration
Module Module1
    Sub main()
        Dim r As Single
        Dim a, c As Double
        Const pi As Single = 22 / 7
        Console.WriteLine("Input radius of circle:")
        r = CSng(Console.ReadLine())
        a = pi * r * r
        c = 2 * pi * r
        Console.WriteLine("Area={0},Circumference={1}", a, c)

        Console.Read()
    End Sub
End Module

```

**Output:**

```

Input radius of circle:
2.5
Area=19.6428567171097,Circumference=15.7142853736877

```

**'2. Convert input number in positive (Using If)**

```

Module Module2
    Sub main()
        Dim n As Double
        Console.WriteLine("Input number:")
        n = CDbl(Console.ReadLine())
        If n < 0 Then
            n = -n
        End If
        Console.WriteLine("Number is {0}", n)
        Console.Read()
    End Sub
End Module

```

**Output:**

```

Input number:
-25
Number is 25

```

**'3. Find input number is even or odd (Using If-Else)**

```

Module Module3
    Sub main()
        Dim n As Integer
        Console.WriteLine("Input integer number:")
        n = CInt(Console.ReadLine())

```

```

If n Mod 2 = 0 Then
    Console.WriteLine("{0} is Even number", n)
Else
    Console.WriteLine("{0} is Odd number", n)
End If
Console.Read()
End Sub
End Module

```

**Output:**

```

Input integer number:
25
25 is Odd number
-
```

**'4. find larger number among three (Using nested If-Else)**

```

Module Module4
Sub main()
    Dim a, b, c As Single
    Console.WriteLine("Input any three numbers:")
    a = CSng(Console.ReadLine())
    b = CSng(Console.ReadLine())
    c = CSng(Console.ReadLine())

    If a > b Then
        If a > c Then
            Console.WriteLine("large:" &a)
        Else
            Console.WriteLine(("large:" &c)
        End If
    Else
        If b > c Then
            Console.WriteLine(("large:" &b)
        Else
            Console.WriteLine(("large:" &c)
        End If
    End If

    Console.Read()
End Sub
End Module

```

**Output:**

```

Input any three numbers:
25
22
26
large:26
```

**'5. Show division of input percentage (Using Elseif ladder)**

Module Module5

```
Sub main()
    Dim p As Single
    Console.WriteLine("Input percentage:")
    p = CSng(Console.ReadLine())
    Dim div As String
    If p >= 60 Then
        div = "First"
    Elseif p >= 45 Then
        div = "Second"
    Elseif p >= 33 Then
        div = "Third"
    Else
        div = "Fail"
    End If
    Console.WriteLine(div)
    Console.Read()
End Sub
```

End Module

**Output:**

```
Input percentage:
55
Second
```

**' 6. Arithmetic Operation on selection base(Using Select Case)**

Module Module6

```
Sub main()
    Dim a, b As Integer
    a = 10
    b = 3
    Dim n As Integer
    n = 6
    Select Case n
        Case 1
            Console.WriteLine(a + b)
        Case 2
            Console.WriteLine(a - b)
        Case 3
            Console.WriteLine(a * b)
        Case 4
            Console.WriteLine(a / b)
        Case 5
            Console.WriteLine(a \ b)
        Case 6
            Console.WriteLine(a Mod b)
        Case Else
            Console.WriteLine("Invalid selection")
    End Select
    Console.Read()
```

```
End Sub  
End Module
```

**Output:**

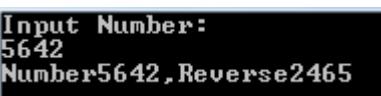


```
1
```

**'7. Reverse Input number (Using while loop)**

```
Module Module7  
Sub main()  
    Dim m, n, r As Integer  
    Console.WriteLine("Input Number:")  
    m = CInt(Console.ReadLine())  
    n = m  
    r = 0  
    While n > 0  
        r = r * 10 + n Mod 10  
        n \= 10  
    End While  
    Console.WriteLine("Number{0},Reverse{1}", m, r)  
  
    Console.Read()  
End Sub  
End Module
```

**Output:**



```
Input Number:  
5642  
Number5642, Reverse2465
```

**'8. Input number is prime or not (Using For loop)**

```
Module Module8  
Sub main()  
    Dim n, i As Integer  
    Console.WriteLine("Input Number:")  
    n = CInt(Console.ReadLine())  
    For i = 2 To n - 1  
        If n Mod i = 0 Then Exit For  
    Next  
    If i = n Then  
        Console.WriteLine("{0} is Prime", n)  
    Else  
        Console.WriteLine("{0} is not Prime", n)  
    End If  
  
    Console.Read()  
End Sub  
End Module
```

**Output:**

```
Input Number:  
17  
17 is Prime
```

'9. Read 5 numbers and print all with sum. (Using one dimensional array)

Module Module9

```
Sub main()  
    Dim arr(5) As Integer  
    Dim i As Integer  
    Console.WriteLine("Input 5 Numbers:")  
    arr(0) = 0 ' for sum of numbers  
    For i = 1 To 5  
        arr(i) = CInt(Console.ReadLine())  
        arr(0) += arr(i)  
    Next  
  
    Console.WriteLine("First is sum of all")  
    For i = 0 To 5  
        Console.WriteLine(arr(i))  
    Next  
  
    Console.Read()  
  
End Sub  
End Module
```

**Output:**

```
Input 5 Numbers:  
10  
20  
30  
40  
50  
First is sum of all  
150  
10  
20  
30  
40  
50
```

'10. Print 3x4 matrix (Using two dimensional array)

Module10

```
Sub Main()  
    Dim m(2, 3) As Integer          '3x4  
    Dim i, j As Integer  
    'Read matrix  
    For i = 0 To 2  
        Console.WriteLine("Input 4 data row wise")  
        For j = 0 To 3  
            m(i, j) = CInt(Console.ReadLine())  
        Next  
    Next
```

```

'print input matrix
For i = 0 To 2
    Console.WriteLine("")
    For j = 0 To 3
        Console.Write(m(i, j) & " ")
    Next
Next

Console.Read()
End Sub
End Module

```

### Output:

```

Input 4 data row wise
10
20
30
40
Input 4 data row wise
11
22
33
44
Input 4 data row wise
55
66
77
88
10  20  30  40
11  22  33  44
55  66  77  88

```

### '11. Dynamic array (Using Redim, Preserve keyword)

```

Module11
Sub main()
    Dim darr() As Integer
    Console.WriteLine("Input maximum limit of data:")
    Dim n As Integer = CInt(Console.ReadLine())
    ReDim darr(n)

    Dim i As Integer
    For i = 1 To n
        Console.WriteLine("Input data:")
        darr(i) = CInt(Console.ReadLine())
    Next

    ' To extend dynamic array with old data
    Console.WriteLine("Input extention value of array:")
    Dim m As Integer = CInt(Console.ReadLine())
    ReDim Preserve darr(n + m)
    For i = n + 1 To n + m
        Console.WriteLine("Input data:")
        darr(i) = CInt(Console.ReadLine())
    Next

    'print all data of dynamic array
    For i = 1 To n + m
        Console.WriteLine(darr(i))
    Next

```

```
    Next  
    Console.Read()  
  
End Sub  
End Module
```

### Output:

```
Input maximum limit of data:  
3  
Input data:  
10  
Input data:  
20  
Input data:  
30  
Input extention value of array:  
2  
Input data:  
40  
Input data:  
50  
10  
20  
30  
40  
50
```

### '12. Sub routine with call by value and call by reference

```
Module Module12  
  
Sub LG(ByVal a As Integer, ByRef b As Single)  
    a = 10  
    b = 22.5  
End Sub  
  
Sub main()  
    Dim x As Integer  
    Dim y As Single  
    x = 20  
    y = 11.5  
    Console.WriteLine("Before calling procedure: x=" & x & " y=" & y)  
    LG(x, y)  
  
    Console.WriteLine("After calling procedure: x=" & x & " y=" & y)  
  
    Console.Read()  
End Sub  
End Module
```

### Output:

```
Before calling procedure: x=20 y=11.5  
After calling procedure: x=20 y=22.5
```

### '13. Function for factorial number using recursion

```
Module Module13  
  
Function Fact(ByVal n As Integer) As Long
```

```

Dim f As Long
If n = 1 Then
    Return 1
Else
    f = n * Fact(n - 1)      'Recursive process
    Return f
End If
End Function

Sub main()
    Dim ft As Long
    ft = Fact(5)  'calling function
    Console.WriteLine(ft)

    Console.Read()
End Sub

End Module

```

### Output:

120

### '14. Making default argument using Optional keyword

```

Module Module14
    Function UseOpt(ByVal a As Integer, Optional ByVal b As Integer = 0, Optional ByVal c As Integer = 0) As Integer
        Return a + b + c
    End Function
    Sub main()
        Dim r As Integer
        r = UseOpt(10, 20, 30) 'Pass 3 values
        Console.WriteLine(r)

        r = UseOpt(10, 20)  'Pass 2 values
        Console.WriteLine(r)

        r = UseOpt(10)  'Pass 1 values
        Console.WriteLine(r)
        Console.Read()
    End Sub
End Module

```

### Output:

60  
30  
10

### ' 15. Function/method overloading

```

Module Module15
    Sub Show(ByVal a As Integer)
        Console.WriteLine(a)
    End Sub
End Module

```

```

End Sub

Sub Show(ByVal a As Integer, ByVal b As Integer)
    Console.WriteLine(a & "," & b)
End Sub

Sub Show (ByVal a As Integer, ByVal b As Integer, ByVal c As Integer)
    Console.WriteLine(a & "," & b & "," & c)
End Sub

Sub main()
    Show(10) 'Pass 1 values
    Show(10, 20) 'Pass 2 values
    Show(10, 20, 30) 'Pass 3 values

    Console.Read()
End Sub
End Module

```

### Output:

```

10
10,20
10,20,30

```

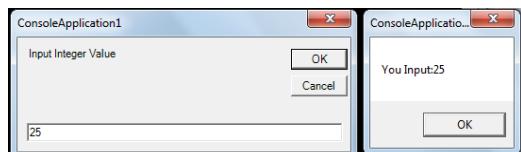
### '16. Using MsgBox and InputBox

```

Module Module16
Sub main()
    Dim a As Integer
    Dim val As String
    val = InputBox("Input Integer Value")
    a = CInt(val)
    MsgBox("You Input:" & a)
End Sub
End Module

```

### Output:



### '17. Exception Handling using On Error Handler

```

Module Module17
Sub main()
    On Error GoTo handler
    Dim a, b, c As Integer
    Console.WriteLine("Input two number:")
    a = CInt(Console.ReadLine())
    b = CInt(Console.ReadLine())
    c = a / b
handler:
End Sub

```

```

    Console.WriteLine(c)
nextline:
    Console.Read()
    Exit Sub
handler:
    Console.WriteLine("Overflow Error")
    Resume nextline
End Sub
End Module

```

**Output:**

```

Input two number:
10
0
Overflow Error

```

**'18. Exception Handling using Try Catch**

```

Module Module18
Sub main()
    Try
        Dim a, b, c As Integer
        Console.WriteLine("Input two number:")
        a = CInt(Console.ReadLine())
        b = CInt(Console.ReadLine())
        c = a / b
        Console.WriteLine(c)
    Catch ex As Exception
        Console.WriteLine("Exception Error:{0}", ex.Message)
    End Try
    Console.Read()
End Sub
End Module

```

**Output:**

```

Input two number:
10
0
Exception Error:Arithmetic operation resulted in an overflow.

```

**'19. Exception Handling used Finally with try and catch**

```

Module Module19
Sub main()
    Try
        Dim a, b, c As Integer
        Console.WriteLine("Input two number:")
        a = CInt(Console.ReadLine())
        b = CInt(Console.ReadLine())
        c = a / b
        Console.WriteLine(c)
    Catch ex As Exception
        Console.WriteLine("{0}:Error", ex.Message)
    End Try
End Sub

```

```
Finally
    Console.WriteLine("Execution code completed")
End Try
Console.Read()
End Sub
End Module
```

**Output:**

```
Input two number:
10
0
Arithmetic operation resulted in an overflow.:Error
Execution code completed
```

**'20. Use Throw to catch even exception made or not**

```
Module Module20
```

```
Sub main()
    Try
        Throw Err.GetException
    Catch ex As Exception
        Console.WriteLine("{0}:Error", ex.Message)
    End Try
    Console.Read()
End Sub
End Module
```

```
Object reference not set to an instance of an object.:Error
```

**Output:**

**'21. Structured exception handling using try catch**

```
Module Module21
```

```
Sub main()
    Try
        Dim a, b, c As Integer
        Console.WriteLine("Input two number:")
        a = CInt(Console.ReadLine())
        b = CInt(Console.ReadLine())
        c = a / b
        Console.WriteLine(c)

    Catch ex As Exception
        Console.WriteLine("{0}:Error", ex.Message)
    Finally
        Console.WriteLine("Execution code completed")
    End Try
    Console.Read()
End Sub
End Module
```

**Output:**

```
Object reference not set to an instance of an object.:Error
```

## '22. Using Class with data, subroutine, function, property as members and creating object and calling method using object

Module Module22

Class A

```
Private x As Integer  
Public Sub SR(ByVal a As Integer)  
    x = a  
End Sub  
  
Public Function Fun() As Integer  
    Return x  
End Function  
Public Property pr() As Integer  
    Get  
        Return x  
    End Get  
    Set(ByVal a As Integer)  
        x = a  
    End Set  
End Property
```

End Class

Sub main()

```
Dim ob As A = New A()  
ob.SR(2)  
Dim var As Integer = ob.Fun()  
Console.WriteLine(var)
```

```
ob.pr = 20  
Console.WriteLine(ob.pr)  
Console.Read()
```

End Sub

End Module

### Output:

```
2  
20
```

## '23. Using constructor and destructor

Module Module23

Class A

```
Private a As Integer  
Private b As Integer  
Public Sub New()  
    a = 10  
    b = 20  
End Sub  
Public Sub New(ByVal x As Integer)
```

```

    a = x
    b = 20
End Sub
Public Sub New(ByVal x As Integer, ByVal y As Integer)
    a = x
    b = y
End Sub
Protected Overrides Sub finalize()
    Console.WriteLine("Object removed")
    Beep()
    Console.Read()
End Sub

Public Sub show()
    Console.WriteLine(a & "," & b)
End Sub
End Class
Sub main()
    Dim ob1 As A = New A()
    Dim ob2 As A = New A(55)
    Dim ob3 As A = New A(11, 22)

    ob1.show()
    ob2.show()
    ob3.show()

    Console.Read()
End Sub
End Module

```

### **Output:**

10,20
55,20
11,22

### **'24. Using constructor and destructor**

```

Module Module24
    Public Class ClassX
        Private a As Integer
        Public Property pa() As Integer
            Get
                Return a
            End Get
            Set(ByVal value As Integer)
                a = value
            End Set
        End Property

        Public Sub SR()
            Console.WriteLine(a)
        End Sub
    End Class
End Module

```

```

End Sub
Public Function Fun() As Integer
    Return a * 2
End Function

Public Sub New()
    Console.WriteLine("Constructor")
End Sub
Public Sub New(ByVal x As Integer)
    a = x
    Console.WriteLine(a)
End Sub
Protected Overrides Sub finalize()
    Beep()
End Sub
End Class

Sub main()
    Dim ob1 As New ClassX
    Dim ob2 As ClassX = New ClassX(10)
    Dim ob3 As ClassX
    ob3 = New ClassX()
    ob1.pa = 100 'set
    Console.WriteLine(ob1.pa) 'get

    ob2.SR()

    Dim p As Integer = ob2.Fun()
    Console.WriteLine(p)

    Console.Read()
End Sub
End Module

```

### Output:

```

Constructor
10
Constructor
100
10
20

```

### '25. Simple program for inheritance

```

Module Module25
    Class B
        Private a As Integer
        Protected b As Integer
        Public c As Integer
        Public Property pa() As Integer
            Get
                Return a
            End Get
        End Property
    End Class
End Module

```

```

Set(ByVal value As Integer)
    a = value
End Set
End Property

End Class
Class D
Inherits B 'Creates Inheritance
Public Property pb() As Integer 'use protected b of Base
    Get
        Return b
    End Get
    Set(ByVal value As Integer)
        b = value
    End Set
End Property
End Class
Sub main()
    Dim od As D = New D()
    od.c = 10 'c is public data of Base
    Console.WriteLine("Value={0}", od.c)

    od.pb = 20 'pb is public property of Derived
    Console.WriteLine("Value={0}", od.pb)

    od.pa = 30 'pa is public property of Base
    Console.WriteLine("Value={0}", od.pa)
    Console.Read()
End Sub
End Module

```

### **Output:**

```

Value=10
Value=20
Value=30

```

### **' 26. Constructor in case of inheritance**

```

Module Module26
Class G
    Public Sub New()
        Console.WriteLine("Grand Parent Class")
    End Sub
End Class
Class P
    Inherits G
    Public Sub New()
        Console.WriteLine("Parent Class")
    End Sub
End Class
Class C
    Inherits P

```

```

Public Sub New()
    Console.WriteLine("Child Class")
End Sub
End Class
Sub main()
    Dim oc As C = New C()

    Console.Read()
End Sub
End Module

```

**Output:**

```

Grand Parent Class
Parent Class
Child Class

```

**'27. Passing argument to base class Constructor using derived object**

```

Module Module27
    Class Base
        Private a As Integer
        Public Sub New(ByVal x As Integer)
            a = x
            Console.WriteLine("Base value{0}", a)
        End Sub
    End Class
    Class Derived
        Inherits Base
        Private b As Integer
        Public Sub New(ByVal x As Integer, ByVal y As Integer)
            MyBase.New(x)
            b = y
            Console.WriteLine("Derived value{0}", b)
        End Sub
    End Class
    Sub main()
        Dim od As Derived = New Derived(10, 20)

        Console.Read()
    End Sub
End Module

```

**Output:**

```

Base value10
Derived value20

```

**'28. Using Overridable and Overrides**

```

Module Module28
    Public Class Base
        Public Overridable Sub show()
            Console.WriteLine("Base show Method")
        End Sub
    End Class
End Module

```

```

    End Sub
End Class
Public Class Derived
    Inherits Base
    Public Overrides Sub show()
        Console.WriteLine("Derived show method")
    End Sub
End Class
Sub main()
    Dim od As New Derived
    od.show() 'call method of derived

    Console.Read()
End Sub
End Module

```

**Output:**



Derived show method

**'29. calling Overridable method of base using MyClass Keyword**

```

Module Module29
    Public Class Base
        Public Overridable Sub show()
            Console.WriteLine("Base show Method")
        End Sub
        Public Sub callshow()
            show()
        End Sub
        Public Sub callshow1()
            MyClass.show()
        End Sub
    End Class
    Public Class Derived
        Inherits Base
        Public Overrides Sub show()
            Console.WriteLine("Derived show method")
        End Sub

        End Class
    Sub main()
        Dim od As New Derived
        od.callshow() 'derived show
        od.callshow1() 'base show

        Console.Read()
    End Sub
End Module

```

**Output:**

```
Derived show method  
Base show Method
```

### '30. Implement concept of polymorphism

Module Module30

```
Public Class Base
    Public Overridable Sub show()
        Console.WriteLine("Base show Method")
    End Sub
End Class

Public Class Derived
    Inherits Base
    Public Overrides Sub show()
        Console.WriteLine("Derived show method")
    End Sub
End Class

Sub main()
    Dim ob As New Base
    Dim od As New Derived
    poly(ob)  'pass base object to base variable
    poly(od)  'pass derived object to base variable
    Console.Read()
End Sub

Sub poly(ByVal ob As Base) ' gets base or derived object
    ob.show()  'call show method of base or derived
End Sub
End Module
```

### Output:

```
Base show Method  
Derived show method
```

### '31. using interface

Module Module31

```
Interface I
    Sub show()
End Interface

Class A
    Implements I
    Public Sub show() Implements I.show
        Console.WriteLine("Interface Method defined in class")
    End Sub
End Class

Sub main()
    Dim ob As New A
    ob.show()

    Console.Read()
End Sub
```

```
End Module
```

**Output:**

```
Interface Method defined in class
```

**'32. use modifier with inheritance-NotInheritable, MustInherit**

```
Module Module32
```

```
    'Class B can't be inherits by derived class
```

```
    NotInheritable Class A
```

```
        Public Sub show()
```

```
            Console.WriteLine("I'm not inheritable")
```

```
        End Sub
```

```
    End Class
```

```
    'Object of class B cant be created. Only will be inherit
```

```
    MustInherit Class B
```

```
        Public Sub show()
```

```
            Console.WriteLine("I'm must inheritable")
```

```
        End Sub
```

```
    End Class
```

```
Class D
```

```
    Inherits B
```

```
End Class
```

```
Sub main()
```

```
    Dim oa As New A ' A is NotInheritable
```

```
    oa.show() 'call method of A
```

```
    ' Dim ob As New B Here B is MustInherit
```

```
    Dim od As New D
```

```
    od.show() 'call method of B
```

```
    Console.Read()
```

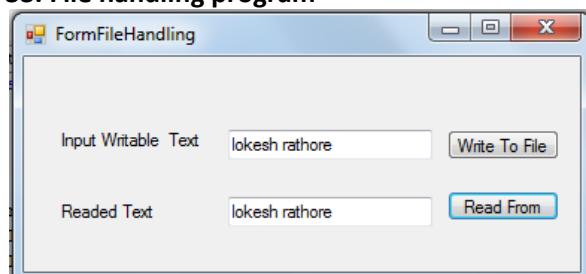
```
End Sub
```

```
End Module
```

**Output:**

```
I'm not inheritable
I'm must inheritable
```

**33. File handling program**

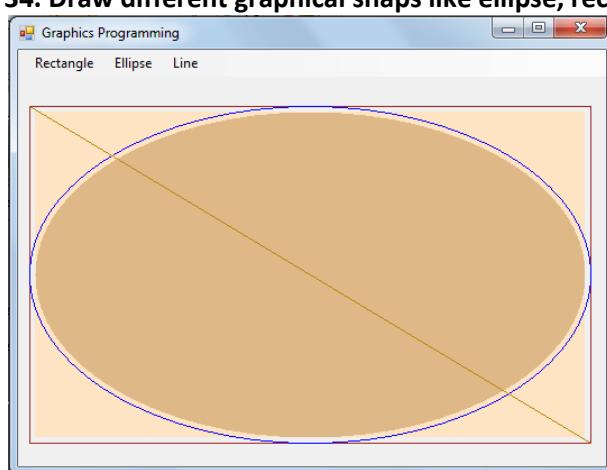


```

Imports System.io
Public Class Form01FileHandling
Private Sub ButtonWrite_Click()
    Dim fw As FileStream = New FileStream("c:\xyz.txt", FileMode.Create,
                                            FileAccess.Write)
    Dim w As New StreamWriter(fw)
    w.WriteLine(TextBox1.Text)
    w.Flush()
    w.Close()
End Sub
Private Sub ButtonRead_Click()
    Dim fr As FileStream = New FileStream("c:\xyz.txt", FileMode.Open,
                                            FileAccess.Read)
    Dim r As New StreamReader(fr)
    TextBox2.Text = r.ReadToEnd()
    r.Close()
End Sub
End Class

```

### 34. Draw different graphical shapes like ellipse, rectangle and line.



```

Public Class Form02Graphics
Private Sub EmptyRectangleToolStripMenuItem_Click()
    Dim g As Graphics = Me.CreateGraphics()
    Dim r As New Rectangle(10, 50, 500, 300)
    g.DrawRectangle(Pens.Brown, r)
End Sub
Private Sub FilledRectangleToolStripMenuItem_Click()
    Dim g As Graphics = Me.CreateGraphics()
    Dim f As New RectangleF(15, 55, 490, 290)
    g.FillRectangle(Brushes.Bisque, f)
End Sub
Private Sub EmptyEllipseToolStripMenuItem_Click()
    Dim g As Graphics = Me.CreateGraphics()
    Dim r As New Rectangle(10, 50, 500, 300)
    g.DrawEllipse(Pens.Blue, r)
End Sub
Private Sub FilledEllipseToolStripMenuItem_Click()
    Dim g As Graphics = Me.CreateGraphics()
    Dim f As New RectangleF(15, 55, 490, 290)
    g.FillEllipse(Brushes.BurlyWood, f)
End Sub
Private Sub LineToolStripMenuItem_Click()
    Dim g As Graphics = Me.CreateGraphics()
    g.DrawLine(Pens.DarkGoldenrod, 10, 50, 510, 350)
End Sub
End Class

```

### 35. Working with database like insert, update, delete and select records using form.

**Create database:** Using MS SqlServer, Create a database file (SqlDb.mdf) having a table(TableMarkList) with some fileds(Id, name, marks) as below.

The screenshot shows the SSMS interface. In the 'Server Explorer' pane, under 'Data Connections' and 'SqlDb.mdf', there is a 'Tables' node with 'TableMarkList' expanded. Inside 'TableMarkList', there are three columns: 'Id', 'name', and 'marks'. In the 'Properties' pane, under 'dbo.TableMarkList(SQLDB.MDF)', the 'Identity Specification' property is highlighted and set to 'Yes'.

#### Design form:

The screenshot shows a Windows application window titled 'FormDatabase'. It has a search bar at the top with 'ID' and 'Search' button. Below are text boxes for 'Name' (Lokesh) and 'Marks' (22.5). At the bottom are buttons for 'Save', 'Update', 'Delete', and 'All'. A DataGridView below shows a list of records with columns 'Id', 'name', and 'marks'. The first record (Id 1, name Lokesh, marks 22.5) is selected.

#### Coding:

```

Imports System.Data.SqlClient
'Database class
Public Class ClassDB
    Public con As SqlConnection
    Public cmd As SqlCommand
    Public dr As SqlDataReader
    Public da As SqlDataAdapter
    Public ds As DataSet

    Public Sub connect()
        Dim constr As String
        constr = "Data Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\SqlDb.mdf;Integrated Security=True;User Instance=True"
        con = New SqlConnection(constr)
        If con.State <> ConnectionState.Open Then
            con.Open()
        End If
    End Sub

    Public Sub IUD(ByVal sql As String)
        connect()
        cmd = New SqlCommand(sql, con)
        cmd.ExecuteNonQuery()

    End Sub

    Public Function SearchRecord(ByVal sql As String) As Boolean
        connect()
        cmd = New SqlCommand(sql, con)
    End Function

```

```

        dr = cmd.ExecuteReader()
        If dr.Read Then
            Return True
        Else
            Return False
        End If
    End Function

    Public Sub FillDS(ByVal sql As String)
        connect()
        cmd = New SqlCommand(sql, con)
        da = New SqlDataAdapter(cmd)
        ds = New DataSet()
        da.Fill(ds)
    End Sub
End Class

Public Class Form03Database
    Private Sub ButtonSearch_Click()
        Dim sql As String
        sql = "Select * From TableMarkList Where ID=" & TextBox1.Text
        Dim dbw As New ClassDB()
        Dim found As Boolean
        found = dbw.SearchRecord(sql)
        If found Then
            TextBox2.Text = dbw.dr(1)
            TextBox3.Text = dbw.dr(2)
        Else
            MsgBox("Not Found")
        End If
    End Sub

    Private Sub ButtonInsert_Click()
        Dim sql As String
        sql = "Insert Into TableMarkList(name,marks) Values('" & TextBox2.Text &
              "','" & TextBox3.Text & ")"
        Dim dbw As New ClassDB()
        dbw.IUD(sql)
        MsgBox("Saved")
    End Sub

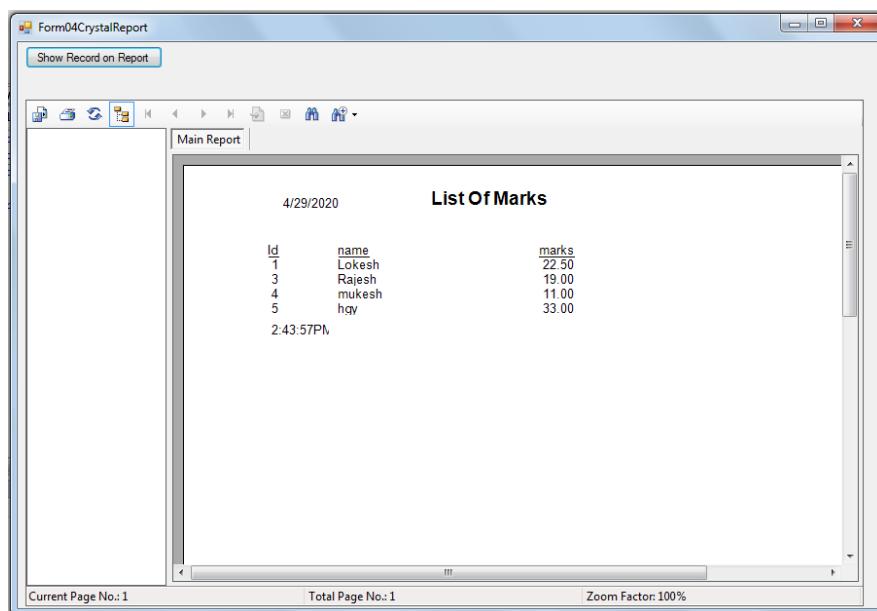
    Private Sub ButtonUpdate_Click()
        Dim sql As String
        sql = "Update TableMarkList Set name=''" & TextBox2.Text & "',marks=" &
              TextBox3.Text & " Where ID=" & TextBox1.Text
        Dim dbw As New ClassDB()
        dbw.IUD(sql)
        MsgBox("Updated")
    End Sub

    Private Sub ButtonDelete_Click()
        Dim sql As String
        sql = "Delete From TableMarkList Where ID=" & TextBox1.Text
        Dim dbw As New ClassDB()
        dbw.IUD(sql)
        MsgBox("Deleted")
    End Sub

    Private Sub ButtonAll_Click()
        Dim sql As String
        sql = "Select * From TableMarkList"
        Dim dbw As New ClassDB()
        dbw.FillDS(sql)
        DataGridView1.DataSource = dbw.ds.Tables(0)
    End Sub
End Class

```

### 36. Working with crystal report to print records.

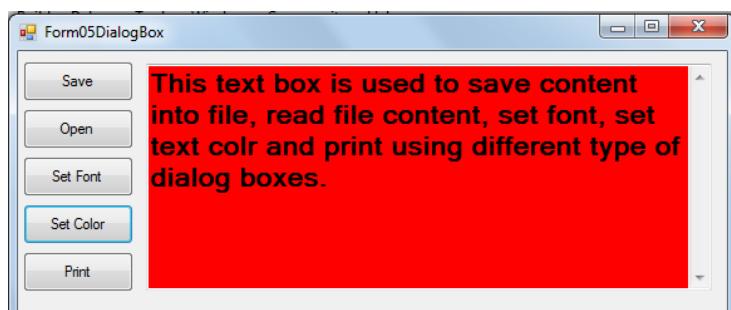


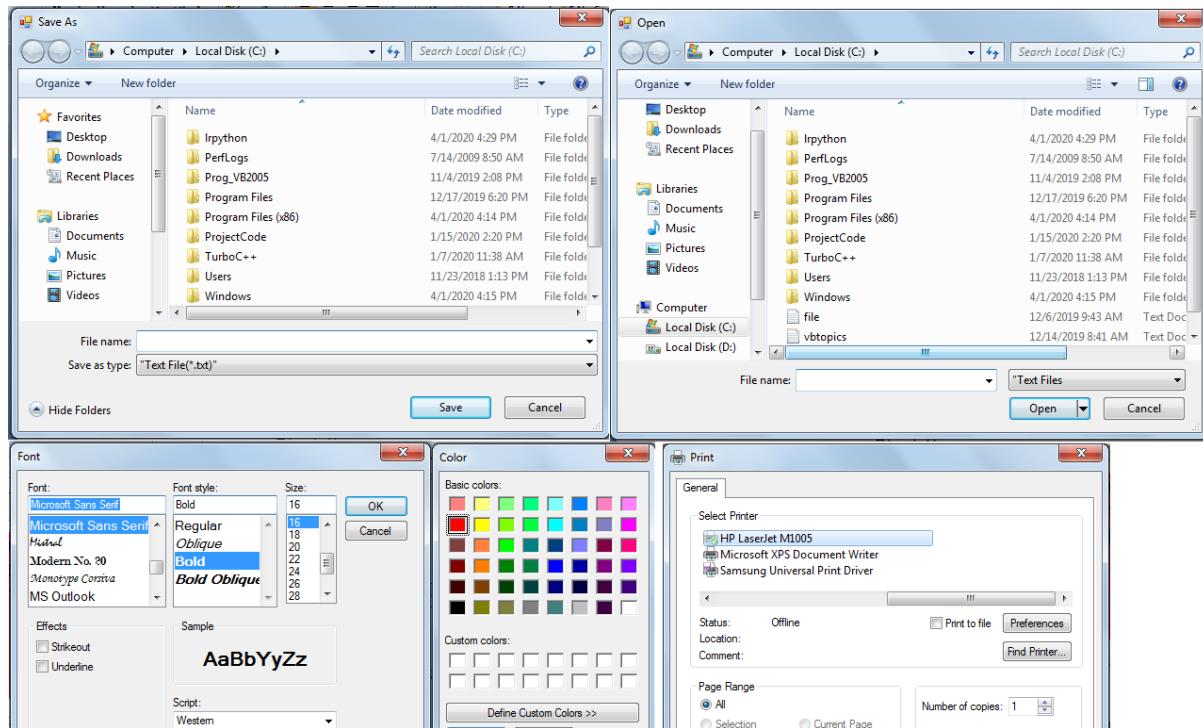
```
Imports System.Data.SqlClient
Imports CrystalDecisions.CrystalReports.Engine

Public Class Form04CrystalReport
    Private Sub Button1_Click()
        Dim constr As String
        constr = "Data Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\SqlDb.mdf;Integrated Security=True;User Instance=True"
        Dim con As New SqlConnection(constr)
        If con.State <> ConnectionState.Open Then
            con.Open()
        End If
        Dim sql As String
        sql = "Select * From TableMarkList"
        Dim cmd As New SqlCommand(sql, con)
        Dim da As New SqlDataAdapter(cmd)
        Dim ds As New DataSet()
        da.Fill(ds)

        Dim cr As New ReportDocument
        cr.Load("D:\ComputerEPPrograms\VBdotNET\Prog_VB2005\WindowsApplication1\CrystalReport1.rpt")
        cr.SetDataSource(ds.Tables(0))
        CrystalReportViewer1.ReportSource = cr
    End Sub
End Class
```

### 37. Working with different dialogboxes like save dialogbox, open dialog box, font dialog box, color dialog box and print dialog box.





```

Imports System.io
Public Class Form05DialogBox
    Private Sub ButtonSave_Click()
        If SaveFileDialog1.ShowDialog() <> Windows.Forms.DialogResult.Cancel Then
            Dim fw As FileStream = New FileStream(SaveFileDialog1.FileName,
                FileMode.Append, FileAccess.Write)
            Dim w As New StreamWriter(fw)
            w.WriteLine(TextBox1.Text)
            w.Flush()
            w.Close()
        End If
    End Sub

    Private Sub ButtonOpen_Click()
        If OpenFileDialog1.ShowDialog() <> Windows.Forms.DialogResult.Cancel Then
            Dim fr As FileStream = New FileStream(OpenFileDialog1.FileName,
                FileMode.Open, FileAccess.Read)
            Dim r As New StreamReader(fr)
            TextBox1.Text = r.ReadToEnd()
            r.Close()
        End If
    End Sub

    Private Sub ButtonFont_Click()
        If FontDialog1.ShowDialog() <> Windows.Forms.DialogResult.Cancel Then
            TextBox1.Font = FontDialog1.Font
        End If
    End Sub

    Private Sub ButtonColor_Click()
        If ColorDialog1.ShowDialog() <> Windows.Forms.DialogResult.Cancel Then
            TextBox1.BackColor = ColorDialog1.Color
        End If
    End Sub
    Private Sub ButtonPrint_Click()
        PrintDialog1.ShowDialog()
    End Sub
End Class

```