

* ~~Any~~ ~~Property~~ ~~to~~ ~~Factorial~~ ~~number~~

15/9/12

* Recursion :-

Recursion is a process in which function can call itself.

Eg:-

A program to calculate factorial of a number.

Enter a number	<input type="text"/>
Result =	<input type="text"/>
<input type="button" value="Clear"/>	<input type="button" value="Factorial"/>

```
Private sub command1_click()
```

```
Text1.Text = " "
```

```
Text2.Text = " "
```

```
end sub
```

```
Private sub command2_click()
```

```
Dim a, b As Integer
```

```
a = Val(Text1.Text)
```

```
b = factorial(a)
```

Teacher Signature _____

Step 1 → Add the following code to clear command & factorial command button.

Text 2: text = b.

```
Public factorial (Byval m as Integer) As Integer
    if m = 1 then
        factorial = 1
    else
```

```
        factorial = m * factorial (m-1)
    End if
endfunction.
```

* Class

Class is a collection of properties (data members) & behaviours (function). It is a mechanism by which properties & behaviours are binds together.

In V.B

Class is created with the help of class module. A class module can be added to V.B project by right clicking on Project Explorer Window then select add option then we select class module

option. A class module window will appear on V.B IDE.

Eg:-

Design a V.B project to show the use of class module or class.

The diagram illustrates a V.B project window with the following components:

- A label "Enter name" followed by a text input field.
- A label "Enter roll" followed by a text input field.
- A "Clear" button located below the "Enter roll" input field.
- An "Input" button located at the bottom left.
- A "Display" button located at the bottom right.

Step 1:- Add a class module & set the name property of class module to student & write the following statement in class module.

Student.cls	X
Public name As String	
Public roll As Integer	

Step 2:- Write the following code in the general declaration section of form module.

Dim S as new student.

Step 3:- Add the code for input command button.

```
Public sub command1_click()
    S.name = Text1.Text
    S.roll = Val(Text2.Text)
end sub
```



```
Public sub command3_click()
```

```
Text1.Text = Text2.Text
```

```
Text2.Text = Text1.Text
```

```
end sub
```

• Write the code for display button.

```
Public sub command2_click()
```

```
Label1.Caption = "Name of student"
```

```
Label2.Caption = "Roll No. of student"
```

```
Text1.Text = S.name
```

```
Text2.Text = S.roll
```

Step 4:- Save & run the project.