**Do While... Loop Statement**

The **Do While...Loop** is used to execute statements until a certain condition is met. The following Do Loop counts from 1 to 100.

Dim number As Integer  
number = 1  
Do While number <= 100  
number = number + 1  
Loop

A variable number is initialized to 1 and then the Do While Loop starts. First, the condition is tested; if condition is True, then the statements are executed. When it gets to the Loop it goes back to the Do and tests condition again. If condition is False on the first pass, the statements are never executed.

**While... Wend Statement**

A **While...Wend** statement behaves like the **Do While...Loop** statement. The following **While...Wend** counts from 1 to 100

Dim number As Integer  
  
number = 1  
While number <=100  
number = number + 1  
Wend

**Do...Loop While Statement**

The **Do...Loop** While statement first executes the statements and then test the condition after each execution. The following program block illustrates the structure:

Dim number As Long  
number = 0  
Do   
number = number + 1  
Loop While number < 201

The programs executes the statements between Do and Loop While structure in any case. Then it determines whether the counter is less than 501. If so, the program again executes the statements between Do and Loop While else exits the Loop.

**Do Until...Loop Statement**

Unlike the **Do While...Loop** and **While...Wend** repetition structures, the **Do Until... Loop** structure tests a condition for falsity. Statements in the body of a **Do Until...Loop** are executed repeatedly as long as the loop-continuation test evaluates to False.

An example for **Do Until...Loop** statement. The coding is typed inside the click event of the command button

Dim number As Long  
number=0  
Do Until number > 1000  
number = number + 1  
Print number  
Loop

Numbers between 1 to 1000 will be displayed on the form as soon as you click on the command button.

**The For...Next Loop**

The **For...Next** Loop is another way to make loops in Visual Basic. **For...Next** repetition structure handles all the details of counter-controlled repetition. The following loop counts the numbers from 1 to 100:

Dim x As Integer  
For x = 1 To 50  
Print x  
Next

In order to count the numbers from 1 yo 50 in steps of 2, the following loop can be used

For x = 1 To 50 Step 2  
Print x  
Next

The following loop counts numbers as 1, 3, 5, 7..etc  
  
The above coding will display numbers vertically on the form. In order to display numbers horizontally the following method can be used.

For x = 1 To 50  
Print x & Space$ (2);  
Next

To increase the space between the numbers increase the value inside the brackets after the & Space$.

Following example is a **For...Next** repetition structure which is with the If condition used.

Dim number As Integer  
For number = 1 To 10  
If number = 4 Then  
Print "This is number 4"  
Else  
Print number  
End If  
Next

In the output instead of number 4 you will get the "This is number 4".