Looping Statements

Those statements, which are used to execute a set of statements again & again until the given condition remains TRUE, are known as LOOPING STATEMENTS.

In another word, we can also say that these statements are used to repeat a certain task until a certain period. That‘s why; it is also called REPETATIVE STATEMENTS or ITERATIVE STATEMENT.

There are several types of looping statements supported by VB:

1. FOR – LOOP
2. WHILE – LOOP
3. DO – WHILE – LOOP
4. DO – UNTIL LOOP
5. DO – LOOP – WHILE
6. DO – LOOP- UNTIL
7. FOR EACH

1. FOR LOOP: -

It is looping statement which can repeat the set statements written within its body until the given condition remains true.

Syntax: -

```
For variable = initial_value  To final_value  STEP <step_value>
        Statement
        ----------
        ----------
Next variable
```

The Initial value indicates that from which value the loop will be started.
The Final value indicates that until which value, the loop will be repeated.
The STEP is the keyword and step value indicates that by which values the looping variable is increased or decreased after each repetition. If it is not mentioned than the FOR – LOOP variable is increased by 1 by default.

2. WHILE LOOP:-

It is also looping statement, which can repeat the statements until some condition is satisfied.

Syntax: -

```
While (condition)
    Statement
    ----------
    ----------
    Increment/ Decrement part
Wend
```

The initial value of WHILE LOOP variable must be assigned above the WHILE LOOP. The condition is mentioned with the loop, which specifies that how much times the loop will be repeated.

3. DO – WHILE- LOOP:-

It is also looping statement, which is same as the WHILE – LOOP. But the difference between WHILE - LOOP and DO – WHILE LOOP is that WHILE – LOOP cannot be terminated before reaching on given condition but the DO – WHILE LOOP can be terminated on some condition before reaching on given condition.

The DO – WHILE, DO – UNTIL, DO – LOOP –WHILE and DO – LOOP – UNTIL is the looping statements of DO – LOOP series.

Syntax: -

```
Do while (condition)
    Statement
    ----------
    ----------
    Increment/Decrement part
Loop
```

4. DO – UNTIL- LOOP:-

It is also a looping statement of DO – LOOP series. It checks the condition for falsity. It means, it checks the condition in negative and executes the body unless and until the given condition evaluates to false.

When the condition is being TRUE, then the loop is terminated.

Syntax: -

```
Do until (condition)

    Statement
    ----------
    ----------
    Increment/Decrement
 Loop
```

5. DO - LOOP - WHILE:-

It is also a looping statement which must executes the statements at least once. Like WHILE – LOOP and DO – WHILE – LOOP, it is also check the condition for true & repeats the body unless and until, the given condition remains TRUE.

Syntax: -

```
Do
    Statement
    ----------
    ----------
    Increment/Decrement
Loop While (condition)
```

6. DO - LOOP - UNTIL:-

It is also a looping statement which must executes the statements at least once. But, it checks the condition for falsity. That is, it repeats the statement unless and until the given condition remains false.

Syntax: -

```
Do
    Statement
    ----------
    ----------
    ----------
    Increment/Decrement
Loop until (condition)
```

Exit Loop and Exit For Statement:

Exit Do and ―Exit For statement is used to terminate the loop on some condition before satisfying the given condition.

The Exit Loop statement is used to terminate the DO – LOOP, DO WHILE – LOOP .

And the Exit For statement is used to terminate the FOR – LOOP on some condition.

Syntax: -

```
Do while (condition)
        ----------
        ----------
        If (condition)
                Exit loop
        End if
Loop

For variable = initial_value  To final_value  STEP <step_value>
        ----------
        ----------
                If (condition)
                        Exit for
                End if
Next variable
```

8. FOR EACH

```
For Each var in List
   Statement
Next var
```