

# 4. Functions and Control Statements

# Working with function

- String function
- Mathematical function
- Date function
- I/O function

# String function

- String( )
- Instr( )
- InstrRev( )
- Left( )
- Right( )
- Mid( )
- Len( )
- Replace( )
- LTrim( )
- RTrim( )
- Trim( )
- Str( )
- Format( )

# Mathematical function

- Abs( )
- Atn( )
- Sin( )
- Cos( )
- Tan( )
- Hex( )
- Oct( )
- Sqr( )
- Val( )

# Date and Time function

- Now( )
- Date/Date\$( )
- Time/Time\$( )
- Datepart( )
- DateAdd( )
- DateDiff( )
- DateValue()
- TimeValue( )
- Dateserial()
- Month( )
- Day( )
- year( )
- Hour( )
- Minute( )

# Control statements

- If statements
- Select case statements
- Do statements
- For loop
- Exit

# If statements

- The if ...then structure tests the condition specified and if it's true executes the statements that follows .
- Syntax:-
- If condition then statement

- If.....Then.....Else Statement :

A variation of the If..Then statement is the If..Then..Else statements, which executes one block of statements if the condition is true and other condition is false.

- Syntax :

- If condition Then
- statementblock-1
- Else
- statementblock-2
- End If



# Select case statement

- The select case structure compares one expression with different values.
- Syntax:-
  - Select case expression
  - Case value 1
    - Statementblock-1
  - Case value 2
    - Statementblock -2
  - .
  - .
  - .
  - Case else
    - Statementblock
  - End select

# Looping Statements

- Loop statements allow you to one or more lines of code repetitively.
- Visual Basic supports the following loop statements :
  - 1) Do...loop
  - 2) For...Next
  - 3) Exit

# 1) Do...Loop

- The do... loop executes a block of statements for as long as a condition is true.
- There are two variations of the Do...Loop statement.
- A Loop can be executed either while the condition is true or Untill the condition becomes true.

- To execute a block of statements while condition is true
- Syntax :
  - Do while condition
  - statement-block
  - Loop
- To execute a block of statements Until the condition becomes is true
- Syntax :
  - Do Until condition
  - statement-block
  - Loop

## 2) For.....Next Loop

- The for...next loop is require to know how meny times the statements in the loopwill be executed.
- Syntax:-
  - For counter = start to end [step increment]
  - Statements
  - Next [counter]

# exit

- The `wxit` statement allows you to exit prematurely from a block of statements in a control structure, from a loop, or even from a procedure.
- Syntax:-
- `exit`

- For ex :-

```
For i = 0 To Ubound (nArray())  
    If nArray(i) < 0 Then Exit For  
    nArray(i) = Sqr (nArray(i))  
Next
```