

# *Excel VBA Programing*

## **1 Excel VBA Introduction:**

- ◆ Accessing the visual basic editor
- ◆ Switching between Applications
- ◆ The VB editor windows
- ◆ Creating and Removing Modules
- ◆ Renaming Modules
- ◆ Setting up of code fonts and colours

## **2 VBA Introduction Part-2:**

- ◆ Beginning of Subroutine
- ◆ Laying out code neatly
- ◆ Writing comments
- ◆ Basic VBA Grammar
- ◆ Saving files containing code

## **3 Running VBA Code:**

- ◆ Running subroutine
- ◆ Keyboard Shortcuts
- ◆ Drawing simple buttons
- ◆ Using Drawing objects
- ◆ Designing Ribbon tabs and toolbars

## **4 Selecting Cells and Ranges by using VBA:**

- ◆ VBA Properties and its types
- ◆ Selecting single and multiple cells by using
  - Range
  - Cells
  - Offset
- ◆ Referring to activecell
- ◆ Selecting Multiple cells
- ◆ Referring to the selection
- ◆ Using Range Names

## **5 Selecting cells Relatively:**

- ◆ Finding the End of a list
- ◆ Moving UP,Down,Left and Right
- ◆ Selecting from the Top to the Bottom of a list
- ◆ Selecting entire regions ,Columns and Rows

## **6 Errors and Debugging :**

- ◆ Types of Error
  - Syntax Errors
  - Compile Errors

- Runtime Errors
- ◆ Debugging a Subroutine
  - Stepping through code
  - Setting Breakpoints
  - The Debug Toolbar

## 7 Working with Sheets

- ◆ Sheets and Types of Sheets
- ◆ Referring and Moving between Sheets by using
  - Names
  - Index number
  - Code Name
- ◆ Selecting Single and multiple sheets
- ◆ Manipulating Sheets
  - Inserting and Deleting
  - Copying and Moving
  - Renaming
  - Hiding and Unhiding

## 8 Working with Workbooks:

- ◆ Referring to workbooks
- ◆ Opening and Creating workbooks
- ◆ Saving Workbooks

## 9 Variables in VBA:

- ◆ What is Variables?
- ◆ Using Non-Declared Variables
- ◆ Explicitly Declared Variables
- ◆ Variable Data Types
- ◆ Errors while using Variables
- ◆ Changing the Scope of Variables

## 10 Object variables in VBA:

- ◆ Declaring Object Variables
- ◆ Using the SET Keyword
- ◆ Creating and Referencing Objects
- ◆ Using methods to set references

## 11 Message Boxes in VBA

- ◆ The MessageBox Functions
- ◆ Customising Msgboxes
- ◆ Concatenating Boxes
- ◆ Using Multiple Lines
- ◆ Reading Cell Values into Messages
- ◆ Asking Questions with Msgboxes

## 12 Input Boxes in VBA:

- ◆ Displaying an Input box
- ◆ Customising an Input box
- ◆ Capturing the Result
- ◆ Cancelling from an Input box
- ◆ Returning Different Data Types

### **13 Application.Inputboxes:**

- ◆ Limitations of the Generic Inputbox Function
- Using the Application.Inputbox
- Setting the Return Type
- Validating User Input
- Returning a Formula
- Returning a Range
- Returning a Array

### **14 With Statements:**

- ◆ Writing a Simple With Statement
- ◆ Creating More Complex References
- ◆ Referencing other Objects

### **15 If Statements:**

- ◆ Simple If Statements
- ◆ Single line Ifs
- ◆ The Elseif Statement
- ◆ Nesting Ifs
- ◆ Combining Logical Tests

### **16 Select Case Statement:**

- ◆ Writing a Simple Select Case Statement
- ◆ Phrasing a Logical Test
- ◆ Nesting with Select case Statements

### **17 Looping in VBA**

- ◆ Introduction to Loops and its Types
- ◆ The Basic Do Loop Statement
- ◆ Conditionally Ending a Loop
- ◆ Do Until vs. Loop Until
- ◆ Do While vs. Loop While
- ◆ Exiting from a Loop
- ◆ Some Practical Examples

### **18 Find and Find Next:**

- ◆ Applying Find Method to a Range
- ◆ Case-Sensitive Searches
- ◆ Finding Whole and Partial Words
- ◆ Dealing with Failed Finds
- ◆ Creating a Basic Search System

- ◆ Using Findnext and Find All Instances of a Value

## **19 For Next Loops:**

- ◆ Using Loop Counters
- ◆ The Step Keyword
- ◆ Exiting from a For Next Loop
- ◆ Looping Through Items in a collection

## **20 For Each Loops:**

- ◆ The For Each Next Statement
- ◆ Using Object variables
- ◆ Looping Over the Worksheets Collection
- ◆ Looping Over Workbooks
- ◆ Looping Over Chartobjects
- ◆ Looping Over Cells
- ◆ Nesting for Each Loops

## **21 Creating Functions:**

- ◆ Writing a Simple Functions
- ◆ Calling Functions
- ◆ Creating Parameters
- ◆ Optional Parameters
- ◆ Rewriting Code to use Functions

## **22 Error Handling:**

- ◆ What are Runtime Errors
- ◆ The On Error Statement
- ◆ Ignoring Errors
- ◆ Creating an Error Handler
- ◆ Resuming after an Error
- ◆ Testing for the Type of Error
- ◆ Raising Custom Errors

## **22 File System Object:**

- ◆ Interacting with files and folders
- ◆ Dynamic creation of files and folders

## **23 Other Topics**