

Visual Basic

Course code – R10603

1) Introduction to Visual Basic

Introduction Graphical User Interface (GUI), Programming Language (Procedural, Object Oriented, Event Driven), The Visual Basic Environment, How to use VB compiler to compile / debug and run the programs.

2) Introduction to VB Controls

Textboxes, Frames, Check Boxes , Option Buttons, Images, Setting a Border & Styles, The Shape Control, The line Control, Working with multiple controls and their properties, Designing the User Interface, Keyboard access, tab controls, Default & Cancel property, Coding for controls.

3) Variables, Constants, and Calculations

Variables, Variables Public, Private, Static, Constants, Data Types, Naming rules/conventions, Constants, Named & intrinsic, Declaring variables, Scope of variables, Val Function, Arithmetic Operations, Formatting Data.

4) Decision & Conditions

If Statement, If ?then-else Statement, Comparing Strings, Compound Conditions(And, Or, Not), Nested If Statements, Case Structure ,Using If statements with Option Buttons & Check Boxes, Displaying Message in Message Box, Testing whether Input is valid or not.
Using Call Statement to call a procedure.

5) Menus, Sub-Procedures and Sub-functions

Defining / Creating and Modifying a Menu, Using common dialog box, Creating a new sub-procedure, Passing Variables to Procedures, Passing Argument ByVal or ByRef, Writing a Function Procedure,

6) Multiple Forms

Creating , adding, removing Forms in project, Hide, Show Method, Load, Unload Statement, Me Keyword, Referring to Objects on a Different Forms,

7) List, Loops and Printing

List Boxes & Combo Boxes, Filling the List using Property window / AddItem Method, Clear Method, List box Properties, Removing an item from a list, List Box/ Combo Box, Do/Loops, For/Next Loops, Using MsgBox Function, Using String Function, Printing to printer using Print Method,

8) Arrays Single-Dimension Arrays, Initializing an Array using for Each, User-Defined Data Types, Accessing Information with User-Defined Data Types, Using List Boxes with Array, Two dimensional arrays.

9) OOP in VB

Classes, Creating a new Class, Creating a new object using a class, choosing when to create New Objects, The Initialize & Terminate events.

10) Data Files

Opening and Closing Data Files, The Free File Function, Viewing the data in a file, Sequential File Organization (Writing Data to a sequential Disk File, Creating a sequential data file, Reading the Data in a sequential file, Finding the end of a Data file, Locating a file). Trapping Program Errors, The Err Object, Random Data File Opening a random file, Reading and writing a random file(Get, Put, LOF, Seek).

11) Accessing Database File

Creating the database files for use by Visual Basic (Using MS-Access), Using the Data Control ,setting its property, Using Data Control with forms, navigating the database in code (the recordset object using the movenext, moveprevious, movefirst & movelast methods , checking for BOF & EOF, using listboxes & comboboxes as data bound controls, updating a database file (adding, deleting records) .

12) Advanced data handling

Displaying data in grids (grid control, properties of grid) , displaying the record no & record count, opening the database, validation & error trappings (locking text boxes, trap errors with On Error, file open errors) , Recordset , searching for a specific record (findfirst, findnext, findlast, findprevious,) , seek method, working with database fields, creating a new dynaset.