

## Course duration

- 3 days

## Course Benefits

- Identify and describe the purpose of various components of the Visual Basic programming environment.
- Build and run a small application.
- Use the code editing tools in the Code Editor window to write conditional statements and other code constructs.
- Isolate, identify, and correct logic, compile, and run-time errors in a Visual Basic application.
- Develop multiple-form applications.
- Declare variables and constants.
- Examine and discuss Sub and Function procedures, and pass arguments by value and by reference.
- Create application interfaces with standard and custom controls.
- Build common and pop-up menus into an application.
- Write an error-handling routine.
- Create an application by using the VB Application Wizard, and create, install, and remove a setup program.
- Use the data control to access a database table and discuss the features of an MDI environment.

## Course Outline

1. Introduction to Visual Basic Programming
  1. What Is Visual Basic?
  2. Terminology
  3. Steps to Create an Application
  4. Modular Environment
2. Building an Application
  1. Setting Properties of Objects
  2. Forms
  3. Introduction to Controls
  4. Object-based, Event-driven Programming
3. Coding
  1. The Code Editor
  2. Using the Object Browser to View Properties and Methods of Objects
  3. Statements and Functions
  4. Conditional Statements

- 5. Looping Statements
- 6. Native Code
- 4. Debugging
  - 1. Overview
  - 2. Forms
  - 3. Showing and Hiding Forms
  - 4. Order of Events
  - 5. Multiple Forms
  - 6. Startup and End of Applications
- 5. Variables
  - 1. Data Types
  - 2. Scope and Lifetime of Variables
  - 3. Constants
  - 4. Arrays and User-defined Types
- 6. Procedures
  - 1. Introduction to Procedures
  - 2. Arguments and Parameters
  - 3. Named Arguments and Optional Arguments
- 7. Controls
  - 1. Control Formatting
  - 2. Standard Controls
  - 3. Custom Controls
- 8. Menus
  - 1. Creating and Coding Menus
  - 2. Custom Pop-up Menus
- 9. Error Handling
  - 1. An Introduction to Error Handlers
- 10. Wizards
  - 1. The Package and Deployment Wizard
  - 2. Application Wizard
- 11. The Next Step
  - 1. Data Access Using the Data Form Wizard and the Data Control
  - 2. MDI Forms
  - 3. Classes
  - 4. An Introduction to ActiveX Controls within Visual Basic

## Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

### Class Prerequisites

Experience in the following *is required* for this VBA class:

- Familiarity with the Windows environment and some programming experience