

Visual Basic.NET Programming Syllabus

- Data Types
- Control Statements
- Procedures
- Functions
- Event Handlers
- Exception handling
- Validations Arrays and Collections
- Object Oriented Programming Creating and Using Classes Inheritance Polymorphism Overloading, Overriding Interfaces and Namespaces
- **Developing GUI Application Using WinForms**
 - Windows Forms, and Controls Dialogs Boxes
 - What are the controls that have in the WindowsForms
 - What are the important properties of the controls
 - What are the important Events that each control have
 - What are the Container controls
 - What are Graphical Objects
 - What are GDI objects
 - What is MenuStrip, ContextMenuStrip, ToolStrip And StatusStrip
 - How to work with Model Dialog
 - How to develop a Notepad Application
 - What is Modeless dialog Box
 - What is Multiple Document Interface
 - What is Form Inheritance
 - How to Add Login Facility to the Application
 - How to work with the Resource files
 - What is NotifyIcon Control
 - What is Timer control
 - How to Drag and Drop the Files
 - What is a Treeview
 - What is a ListView
 - Working with Windows Forms
 - Working with Multiple Forms
 - Using Visual Basic Controls Handling Mouse Events in Forms
 - MDI Applications
 - Debugging VB .NET Applications
 - User Interface Design
 - Principles Working various VB.net Controls
 - Working with Menus Context Menus
 - Common Dialogs
 - Date TimePicker, Month Calendar, Splitter Using the StatusBar
 - User Interfaces and Deployments

- Debugging Applications
 - Generating Reports using Crystal Report
- Boxing and unboxing
- Database Programming Part 1 - Data Sources Using ADO.Net Dataset, Data Reader, Data Grids
Reading and Writing Files, XML Documents
 - How to Install SQL server and Management Studio
 - How to establish a connection to Database
 - What is Connection Pooling
 - How to insert, Update, Delete the data in the Database from the Application
 - How to Fetch Data from the Database using Select command
 - How to implement Login to the Application using Database
 - What is MultipleActiveResultSets
 - What is Parameterized Prepared Statement
 - How to write stored procedures in Backend
 - How to Execute storedprocedures from front end Application
 - What are the Transactions
 - How to Manage the Transactions using Transaction Scope
 - What is Asynchronous Execution of SQL Commands
 - How to write Provider independent code
 - What is utility class
- **ADO.NET Part2 –**
 - What are DataAdapter events
 - How to handle Concurrency issues if multiple users performing operations on same Data
 - How to sort and filter the data using DataView
 - What are the constrains in the DataTable and How to Add the constrain to the DataTable
 - What is a DataRelation object
 - How to create DataSet/ DataTable Dynamically without using DataAdapter
 - What is Typed Dataset
- **Windows Services**

Windows service is a computer program, which will run in the background. When some action has to be performed at a particular time, or need to be performed continuously in specific time interval without user interaction then the solution is Windows service.

- What is a Windows service
 - How to create a new windows service Template
 - How to Install/Deploy windows service in the OS
 - How to Launch a Windows Service
 - How to develop an Application for controlling the Service
- **User Control and Custom Control**

A control which can reuse the Components in the Applications. The control can be defined in both Xml and Code-Behind. An UserInterface element that have a distinct behavior which is said as CustomControl.

- What is User Control

- What is composite control
- How to inherit the User Control
- What is a custom control

Step-by-Step procedure for building the project from ground up

- Complete Source Code
- Database Script with Sample data
- Instructions to Setup the Project on a Development box
- Instruction to Deploy the project on Production Box / Microsoft Azure