

Unit 1: Business Data Processing

Introduction, File Organisation, Record and Field, Master and Transaction Data, Sequential and Random Access Files, Concept of Organisation: Feature of Organisation, Organisation as System, Different Management Levels: Top Level Management, Middle Level Management, Low Level Management, Introduction to Visual Basic, Features of Visual Basic, Need of Visual Basic, Visual Basic Editions.

Unit 2: Creating an Application in Visual Basic

Introduction, Windows Program Architecture, Procedural and Event Oriented Languages, Integrated Development Environment, Types of Visual Basic Projects, Object Models, Visual Basic Controls: Common Controls, Other Controls, Variable and Constant: Managing Variables, Managing Constants, Visual Basic Data Types, Operators in Visual Basic.

Unit 3: Writing Code in Visual Basic

Introduction, Invoking Visual Basic: Saving the Project and Running, Decision Control Structure: Using If.....Then.....Else Statement with Operators, Select.....Case, Loop Control Structure: Do Loop, For Next Loop, While Wend Loop, Sub Procedures, Visual Basic Functions: Inbuilt Function, User Defined Functions, Menus: Creating Menus, Creating Menu Items, Creating Sub Menus, What is an Event? Common Controls, Data Validation: Field Level Validation, Form Level Validation.

Unit 4: IDE, Forms and Controls

Introduction, Working With Multiple Forms: Adding New Forms to Your Program, Adding Code Module to a Project, Variable and Constant in Multiple Form Project, Use of Listbox and Combobox Control, Listbox Property, Combobox Style Properties, Methods Associated with Listbox and Combobox, Using Runtime Property to manipulate Listbox on Combobox, Built in Functions: MsgBox() Function, Inputbox() Function, String Functions Erase Initiating and Terminating Events.

Unit 5: Working With Files

Introduction, Data File: Sequential File Organisation, Random Data Files, Accessing Database Files: Terminology, Structure of Database Application, Database Connectivity Through Data Control, Database Connectivity Through Objects (DAO, ADO,RDO).

Unit 6: Introduction to Database

Introduction, Data Report: Selection of Report, Step to Create a Report From a Database, Navigating a Report, Displaying Data in Grid, What is Data Grid?, Creation and Data Connectivity to Data Grid, Validation and Error Trapping, Multiple Document Interface (MDI), Object Linking and Embedding: Object Linking At Design Time, Object Embedding At Design Time.

Unit 7: Graphics in Visual Basic

Introduction, Dragging and Dropping Multiple Objects: Graphics Layering Graphics, Simple Animation, ActiveX: Type of ActiveX Components, In-Process Vs. Out of Process Components, Which ActiveX Component You Want to Build?, Design an ActiveX Control, Registering an ActiveX Control, Using a Custom ActiveX Control in a Visual Basic Program, ActiveX Document DLL Vs. Exe, Dynamic Link Libraries: Using DLL Procedure in Your Application, Type of Windows DLL, Advantages of Creating and Using DLL in VB 6.0, Multimedia, MFC Library: History, Advantages, Disadvantages, Future of MFC Library, Versions of MFC Library, Object Oriented Features of Visual Basic.

Unit 8: VB.Net

Introduction to Visual Studio.Net IDE, Dot Net Framework: Components of Dot Net Framework, Dot Net Framework, Advantage Dot Net Framework Supported Languages, Vb.Net and Internet: XML Web Services and

Mobile Application Development, Simplified Data Access, Security, Improved Coding, Migrating From VB to VB.Net: Method of Migrating, Migration Strategies, Namespaces: Creating Namespaces, Using Namespace in VB.Net, Types of Namespaces, Versioning: Assemblies and Assembly Versions, Dotnet Version Number, Setting Version Number, Attributes.

Unit 9: Creating Applications in VB.Net

Introduction, Data Types and Conversion Functions: Operator Types and Their Precedence, Condition Construct and Looping: If..... Else..... End If, Select.....Case, Do Loop, While Loop, For.....Next Loop, Arrays, Windows Forms, Windows Controls: Label Link label, TextBox, Richtextbox, Button, Checkbox, Radio Button, Listbox, Combobox, PictureBox, Scrollbar, Timer.

Unit 10: Object Oriented Programming in VB.Net

Introduction, Classes and Objects: Fields Properties Methods and Event, Creation of Console Based Application, Constructor and Destructor, Abstraction, Encapsulation, Inheritance: Access Modifiers, Inheritance Modifiers, Use of MyClass and MyBase Keyword, Polymorphism: Interfaces, Function Overloading, Function Overriding, Shadowing, Property Routine and System Windows, Event Procedure: Declare a Delegate, Declared Event and Rise It, Handled The Event.

Unit 11: Data Control Features of VB.NET

Introduction, ADO.NET: Evolution of ADO.NET, ADO.NET Data Architecture, Component classes that make up Data Providers, Database Connectivity with ADO.NET: Data Adapter Configuration Wizard, Data Form Wizard, Creating Data Tables, Data Binding to Controls: Simple Data Binding, Connection, Command and Adapter Objects: Using DataReader, SQL Server, Using OleDb Provider, Data Access with Server Explorer, Using SQL Parameters.

Unit 12: Wep and VB.Net

Introduction to ASP.NET, Advantages Using Asp.Net, Difference Between Asp.Net and Client Side Technologies, Asp.Net Features, Asp.Net Development Environment, Web Application State, Web forms, Component of Web forms, Notable Property of Page Object, The ASPX Extension, Web Form User Controls, Web Form Page Life Cycle, Round Trips, Stages in Webforms Processing, Conditional Statements and Loops: If Then Else Statement, Select Case Statement, For Loop, Do Loop, Arrays and Strings, Functions, Creating and Running a Web Application, Multiform Web Project: Using Image Button, Using Listbox, Page Class.

Unit 13 Controls in Vb.Net

Introduction, Web Server Controls, Custom Controls: Developing a Simple Custom Control, Defining Simple Properties, Defining Class Properties, Reverting inner Content, Dialog Boxes: Simple Dialogue Box, Open Dialogue Box With Another Webform, Returning Value From The Dialogue Box, Client and Server HTML Controls, HTML Server Controls: HTML Tags, Windows Services: Creating a Windows Services in .Net, Investigating Installers, Adding FileSystem watcher Event Code, Testing Service, Debugging Service, Web Services, HTTP GET Operation, HTTP POST Operation, SOAP, WSDL- a Type Library for a Web Service, Deploying an Application: Deploying Asp.Net Application, Installing The Application.

Unit 14: File Handling in VB.Net

Introduction, File Handling: FileStream Class, StreamReader and StreamWriter Classes, BinaryReader and BinaryWriter Class, Code to Create a File and Read From It, Object, Error Handling: Processing Errors, When to Use Error Handler, The Try Catch Statement, More Complex Try Catch Error Handlers, The Err Object, Test For Multiple Runtime Errors, Exit Try, Error Handler and Defensive Programming Techniques, Multithreading: Creating Threads, Suspending a Thread, Resuming a Thread, Making a Thread Sleep, Stopping a Thread, Thread Priorities, Data Access: Data Grid, Repeater Control, Data List.