

DOTNET

C#

1. Introduction to .NET Framework

- Overview of .NET and .NET Framework
- .NET Framework Architecture
- Microsoft Intermediate Language (MSIL)
- Understanding CLR and Execution of .NET Application

2. C# Basics

- Conceptual Overview of C#.Net
- What is Visual Studio?
- C# Programming Language Features
- General Structure of a C# Program
- Modifiers (Access Modifiers)
- Variables, Constants, Enum and Operators
- Casting and Type Conversion
- Boxing and Unboxing
- Selection Statements: If-else, Switch
- Looping Statement: While, Do, For, ForEach

3. Arrays and Collection

- Declaring, Initializing, Accessing Arrays
- Types of Array: Single Dimensional, Multi Dimensional, Jagged Arrays
- Non-Generic Collection
- Generic Collection

4. Object Oriented Features

- Features of OOP'S
- Classes & Objects
- Constructor, Constructor Type, Destructor, Properties
- Inheritance and Polymorphism
- Method Overloading, Method Overriding
- Encapsulation
- Partial Class, Sealed Class
- Working with "static" Members
- Difference between classes and Structures

5. Interface and Abstract classes

- Interfaces
- Abstract Class
- Difference between Interface & Abstract Class

6. Exception Handling

- Try...Catch...Finally keywords
- Using Single, Multiple
- Catch Block

7. Delegates & Event Handling

- Single Cast and Multi Cast Delegate
- Event Delegate

ASP.NET

1.Introduction to ASP.NET

- Background to .NET Framework & Introduction to ASP.NET
- The way the web works
- ASP.NET Web Page
- Asp.net and the .NET Framework
- The Structure of asp.net Page
- Hello World Web Application
- ASP.NET Page Models
- Inline Model
- Code Behind Model

2.Introduction to Standard Controls

- Using the Standard Controls
- AdRotator Control
- Label Controls
- Textbox controls
- RadioButtonList Controls
- CheckBoxList Controls
- Button controls
- LinkButton Control
- ImageButton Control
- Wizard
- Theme

3. Validation Controls

- Validation Controls in ASP.NET
- RequiredFieldValidator Control
- RegularExpressionValidator Control
- CompareFieldValidator Control
- RangeValidator Control
- ValidationSummary Control
- CustomValidator Control

4.State Management

- What is State Management and its importance?
- What is State?
- Client Side State Management
 1. ViewState
 2. HiddenField
 3. QueryString
 4. Cookies
- Server Side State Management
- Application
- Session

5. Master Pages & Themes

- Simple Master Page
- Navigation Controls
- Creating Themes
- Adding skins to themes

6. ADO.NET

- ADO.NET Overview
- Architecture of ADO.NET
- Connected
- Disconnected
- SqlConnection,SqlCommand, SqlDataReader,SqlDataAdapter class
- DataSet class
- Using List Controls, GridView Controls

7. ASP.NET Security

- Security
- Authentication
- Authorization

8. AJAX

- Introduction of AJAX
- Ajax Controls like Update Panel, Update Panel History, Timer

9. Deployment

- Server Requirements
- Configuration Options

SQL Server

- **Introduction of DBMS and RDBMS**
- **Connection with Database**
- **DDL Operations (create ,alter , drop truncate/empty)**
- **DML Operations (insert, update, delete)**
- **DQL Operations (select)**
- **Executing queries**
- **Handling Query Results**
- **Handling Query Errors**
- **Joins**
- **order By and group By**
- **Like Patterns**
- **Stored Procedure**
- **Practice Application with Database Integration**