ASP.NET Web Forms Course Outline

Module 1: Introduction to ASP.NET Web Forms

Overview of Web Development

 - Client-server architecture

 - The role of web servers and browsers

 - Introduction to ASP.NET Web Forms

Setting Up the Development Environment

 - Installing Visual Studio and configuring it for web development

 - Creating a new ASP.NET Web Forms project

Understanding the ASP.NET Page Lifecycle

 - Page events and their sequence

 - ViewState and server controls

Module 2: Web Forms Controls

HTML Controls vs. Web Forms Controls

 - Understanding the difference

 - Working with Web Forms server controls

Common Web Forms Controls

 - TextBox, Button, Label, DropDownList, CheckBox, and more

 - Using these controls in web forms

Validation Controls

 - RequiredFieldValidator, RangeValidator, RegularExpressionValidator, and others

 - Form validation and error messages

Module 3: State Management

ViewState

 - Understanding ViewState

 - How to enable/disable ViewState

 - Best practices for ViewState management

Session State

 - Using session variables to store data

 - Configuring session state options

Cookies

 - Working with client-side cookies

 - Storing and retrieving data with cookies

Module 4: Data Access with Web Forms

ADO.NET Overview

 - Introduction to ADO.NET

 - Connecting to databases

Data Source Controls

 - Using GridView, DetailsView, FormView, and other data source controls

 - Binding data to controls

CRUD Operations

 - Inserting, updating, and deleting data

 - Handling data-bound events

Module 5: Master Pages and User Controls

Master Pages

 - Creating and using master pages for consistent layouts

 - Content placeholders and inheritance

User Controls

 - Creating and using reusable user controls

 - Communication between user controls and web forms

Module 6: Security in Web Forms

Authentication and Authorization

 - Forms authentication

 - Role-based authorization

Security Best Practices

 - Protecting against common web vulnerabilities (e.g., SQL injection, cross-site scripting)

Module 7: Error Handling and Debugging

Handling Errors

 - Custom error pages

 - Application-level error handling

Debugging Techniques

 - Debugging tools and strategies

Module 8: Deployment and Hosting

Deploying Web Forms Applications

 - Preparing for deployment

 - Publishing to web servers

Hosting Options

 - Shared hosting vs. dedicated hosting

 - Cloud hosting