

ASP.NET

Web Programming Introduction

- Introduction of browsers and familiarization of different browsers
- Understanding of how web browser works
- Understanding of how Web Server works
- Brief about HTTP Protocol
- HTTP Request structure
- HTTP Response Structure

Introduction to Visual Studio

- How to create and run the first ASP.NET application using Notepad
- Introduction of Visual Studio
- Creating a new website
- Creating a blank solution
- Adding project to the solution
- Running the application / website
- Understanding different templates available to create website in Visual Studio

ASP.NET Introduction & Sample Programs

- Creating sample website in ASP.NET
- Understanding asp.net web form
- Introduction of Controls in ASP.NET
 - HTML server controls.
 - Web Server Controls.
- Exploring ASP.NET Web Server Controls
- UnderstandingPostBack and AutoPostBack
- Understanding ViewState

Starting with ASP.NET

- ASP.NET Page Life cycle
- Managing state of the control
- Event Handling in WebForms
- Writing / Using Custom Classes in WebApplication
- Different ways of navigating to pages in ASP.NET
 - Hyperlink
 - Response.Redirect
 - Server.Transfer
- CrossPagePostBack property of Button
 - Accessing previous page Controls
 - Accessing previous page Properties

- Introduction of ASP.NET related out of the box folder
 - App_Code
 - App_Data
- Working with
 - Request Object
 - Response Object

Validation Controls

- RequiredFieldValidator
- CompareValidator
- RangeValidator
- RegularExpressionValidator
- Custom Validator
- CausesValidation Property of Button
- Grouping Controls for Validation
- ValidationSummary

Theme and Skins

- Working with CSS using Theme
- Using Themes to Customize a Site
- Named Skins within a Theme
- How to create a Theme and Skin file
- Applying Themes and Skins from Server side and Client side

Master Pages

- What is Master Pages and its uses
- Close look at different controls of Master page
- Accessing Master page controls from content page
- Nested Master Page

User & Server Control

- Creating a UserControl.
- Using a UserControl to the WebForm
- Different properties of Register Directive
- Loading UserControl Dynamically
- Caching of a user control
- Creating and using Custom Server control

Navigation control

- Creating horizontal and vertical menu in asp.net
- Populating dynamic menu from database

- Creating a tree view in asp.net
- Creating SiteMap
- Using SiteMap control

ASP.NET State Management

- Why state management
- Different ways of managing states
 - ViewState
 - Query String
 - Cookie
 - Session
 - Cache

ADO.NET

- Introduction to ADO.NET
- Inserting data to the database
- Retrieving data from database
- Updating data to the database
- Delete data from the database
- Using transaction to execute group of statements
- Getting multiple result sets from the database
- When to use Reader and when to use DataSet?

Working with Data Controls and its templates

- GridView
- ListView
- DataPager
- DetailsView
- DataList
- XmlDataSource
- SiteMapDataSource

In-Depth look at Global.asax and Web.Config

- Different events of Global.asax
- Different elements of Web.Config
 - Accessing web.config data
 - AppSettings
 - ConnectionStrings
 - Encrypting settings to protect the data in the web.config file
 - Storing data in custom settings in web.config file

Caching – Improving performance of the application

- Overview
- Page Output Caching
- Partial Caching
- Data Caching

Security - Authentication & Authorization

- Authentication & Authorization
- Windows Based Authentication
- Form Based Authentication
- Roles based authentication

Globalization and Localization

- Storing data in global resource file
- Programmatic Access to Global Resources
- Creating a multi-lingual web site

LINQ

- Retrieving data from Generic list collection
- Filtering data from generic list
- Sorting data from generic list
- Using Aggregate functions in LINQ
- Introduction of ADO.NET Entity Framework
 - CRUD operation using ADO.NET entity framework

AJAX.NET

- What is ASP.NET Ajax and Why
- Script Manager control
- Update Panel control
- Update Progress control
- Timer control
- Overview of ASP.NET Ajax Control toolkit

Deploying application

- Building the application
- Publishing the application
- XCopy deployment
- Deploying database
- Configuring application for the production