ASP.NET Syllabus

Web Programming Introduction

- Understanding role of Web Server and Web Browser.
- Brief about HTTP Protocol.
- HTTP Request structure.
- Form Tag and comparison between Get and Post methods.
- HTTP Response Structure

HTML and JavaScript

- Understanding HTML Form Tag and elements within it.
- Javascript using Sample Programs.

Traditional ASP Basics

- Introduction to ASP.
- How ASP Works.
- ASP Objects.
- Installing IIs on Windows 7 & Windows 8.
- Sample Programs.
- Importance’s of Form tag and how it works.

ASP.NET Introduction & Controls

- ASP.NET Introduction
- First ASP.NET Application.
- Auto Postback Property.
- Event Handler Parameters.
• Dynamically intializing Controls
• IsPostBack property of Page class
• ListControls
• Comparison between HtmlControls and WebControls
• Control Properties and Methods
• FileUpload Control

**ASP.NET Architecture**

• What is AppDomain?
• Life Cycle of ASP.NET Page
• How Control Manages its State
• What is EnableViewState
• How Control raises events
• Event handling in Web Forms
• Writing Custom Classes in WebApplication

**CSS & Themes**

• Work with CSS
• Use Themes to Customize a Site
• Name Skins within a Theme
• Do server-side Styles using Themes
• Add contents of a Theme and Skin
• Apply themes and Profiles.

**Redirecting User to Another Page**

• Redirecting Options
• Response.Redirect
• Server.Transfer
• Cross Page Postback
• Determine how the pages was invoked
• Passing values between pages

Master Pages

• Introduction to MasterPage
• ContentPlaceHolder and Content tags
• Accessing controls of MasterPage in ContentPage
• URL's in MasterPages
• UniqueID and ClientID

Working with User Control

• Overview of User Controls
• Creating a User Control
• Adding Properties to User Control
• Adding Events to User Control
• Using User Control in Web Form
• Rendering Clients Scripts Using Page.ClientScript methods

Validation Controls
- Base Validator
- Required Field Validator
- Compare Validator
- Range Validator
- Regular Expression Validator
- Custom Validator
- Causes Validation Property
- Grouping - Validation Group Property
- Page.Validators and Page.IsValid

**ASP.NET State Management**

- Static Members
- View State
- Hidden Field in Form
- Query String
- HttpContext
- Cookies-HttpContext
- Sessions(HttpContext)
- Application(HttpContext)
- Summary of All Features

**WebConfiguration File and Global.asax**

- Introduction to Configuration files
- Page setting in web.config
- Custom Errors
- URL Re-Writing
• Tracing
• Using ConfigSource Attribute
• Using Location Section
• HttpApplication class-Global.asax

Authentication & Authorization

• What is Authentication and Authorization
• Types of Authentication
• Forms Authentication
• Role based Authentication
• Windows and Basic Authentication
• What is ASP.NET Impersonation
• Using location section in web.config

Application Service Providers

• ASP.NET Providers Introduction
• Membership Providers
• Role Providers
• Writing Custom Providers
• Profile Providers
• Web Parts Personalization Providers

Data Bound Controls
• Databinding traditional way
• SqlDataSource
• GridView
• DetailsView
• FormView
• DataList
• Repeater
• ListView
• DataPager

Web Caching

• Why Caching
• Types of Caching
  i. Output Caching
  ii. Fragment Caching
  iii. Substitution Caching
  iv. Data Caching
• SQL Cache Invalidation

Globalization and Localization

• Definitions
• Creating Resource files for different cultures
• Designing the WebForm & linking controls to keys in Resource files
• Alternatives to initialize culture settings of the page.

AJAX.NET
• What is AJAX
• What is AJAX.NET
• Script Manager
• Update Panel
• Update Progress
• Timer
• AJAX Control Toolkit

Routing

• What is Routing?
• Mapping Route to Physical file
• Reading Route Parameters
• Route Expression
• Generate URL using Markup

Understanding & Publishing Web Application

• Introduction to ASP.NET Web Application
• Advantages of IIS Applications
• Creating web application in IIS
• Converting File System application to IIS Application
• Using Virtual Directory
• Publishing ASP.NET Website
• Culture specific formatting