

# ASP.NET

- **HTML5**

- Introduction & history
- Basic tags & attributes

- **JavaScript**

- Introduction to JavaScript
- JS variables
- JS functions

- **CSS3**

- Selectors
- Box model
- Backgrounds and borders
- Image values and replaced content
- Text effects
- 2d/d transformations
- Animations
- Multiple column layout
- User interface

- **SQL**

- Introduction to DBMS
- Difference between DBMS and RDBMS
- SQL constraints
- DML & DDL functions
- Group by, having
- Join
- Stored procedure
- Triggers

- **Three tier architecture**

- Presentation layer (UI layer)
- Business Layer (Logic code layer)
- Datalayer (Layer which connects to database)

- **Standard web controls**

- Label control
- Literal control
- TextBox control
- Button Controls
- CheckBox Control
- RadioButton Control

- **Advanced Controls**

- AdRotator Control
- Calendar control
- MultiView Control
- Panel control

- **Web programming concepts**

- Introduction to web programming
- Client / server technolog
- Understanding web server IIS

- **.Net platform**

- Explore.netframework4.5
- Understand common language runtime
- Understand the role of CTS and CLS
- Learn about base class libraries
- Explain the difference between managed code and unmanaged code
- Start exploring IDE-visual studio 2012

## • Asp.net framework 4.5

- .Net framework
- The common language runtime
- Framework class library
- Garbage collection
- MSIL • Types of websites
- Intrinsic objects in asp.net

## • Console application

- C# language syntax
- Working with console class(input and output)
- Learn how to create c# datatype and variable
- Learn about data type
- Learn how to implement string handling

## • Classes & Objects

- Classes and objects
- Methods, properties and events
- Constructors
- Property procedures
- Enumerations
- Reference vs. value types
- Structures
- Namespaces
- Dynamic and dynamic language runtime
- Abstract classes and interfaces
- The exception handling in .net 4.5



- **Arrays & collections**
  - Arrays
  - Resizing arrays
  - Arraylists & Hashtables
  - Generic collections
  
- **ADO.NET (working with database)**
  - Overview of ADO.NET
  - Connection object
  - Command object
  - Data readers
  - Datasets & Dataadapters
  - Using SQLdatasource
  - Winforms with database connectivity
  
- **Webforms**
  - Web control class
  - Creating webforms application
  - Handling images
  - Navigating between pages
  - Managing server controls
  
- **Uploading files**
  - Using fileupload control
  - Restrictions
  
- **Page life cycle events**
- **Validation controls**
  - Asp.net validation controls
  - Configuring validation controls



- **Navigation controls**
  - Tree view control menu
  - Sitemap control
- **State management**
  - Preserving state in web applications
  - Using cookies to preserve state
  - Asp.net session state
  - Application state
- **Masterpages & Themes**
  - Simple master page
  - Nested master page
  - Configuring master page creating themes
  - Applying themes
  - Applying external stylesheet
  - Working with template
- **Data controls**
  - Two tier architecture
  - Three tier architecture
  - Working with stored procedure
- **File I/O and streams**
  - Working with directories and files
  - Read and write file
- **Crystal reports**
  - Overview to crystal reports
  - Creating crystal reports with wizards
  - Integrating with web applications
  - Customizing the report viewer
  - Adding a database or table to a report



- **Xml**

- Basics of XML
- Create XML documents
- XMLreader and XMLwriter
- XML databinding
- XML datasource control

- **LINQ**

- Introduction to LINQ
- LINQ to dataset
- LINQ to SQL
- LINQ to XML

- **Configuration**

- Configuration overview
- Common configuration settings
- Connecting strings

- **Authentication and Authorization**

- **User controls**

- Creating user controls
- Interacting with user controls
- Loading user controls dynamically

- **Handling mail**

- Protocols
- Sending mails with and without attachments



## • ASP.NET Webservices

- Introduction to XML WebServices
- Creating WebService
- Setting the WebService attribute
- Test and run your web service
- Consuming a web service in client application

## • Ajax

- Understanding Ajax technology
- How Ajax works
- Ajax server controls
- Ajax control toolkit
- Downloading and installation
- Building a ASP.Net page with Ajax jQuery

## • jQuery

- Introduction to jQuery
- jQuery effects
- jQuery html
- jQuery ajax
- Examples

## • IIS7

- Architecture of IIS7
- IIS manager
- Publishing web applications.
- Create web setup project.

## • Introduction to WPF & Silverlight

- Overview
- XAML



## • WCF

- Introduction to WCF
- Building a WCF service
- Building WCF client

## • MVC

- Introduction
- MVC application
- MVC folders
- MVC layout
  1. Html helpers
  2. Razor
  3. Adding styles
  4. The \_viewstart file
- Adding a controller
- Adding a view
- Adding a model
- Passing data from controller to view
  1. Viewdata
  2. Viewbag
  3. Strongly typed views
- View model in asp.net MVC
- Data access layer
  - Entity framework
    - Code first approach
      - a. Data annotations
      - b. Fluent API
- Validations
- Routing