**THE MODULES – Day 35**

### ASP.NET 4.5 Application Model

* What is ASP.NET
* Role of IIS in Web Application
* Request/Response Model
* How Web Request is Processed
* Application Life Cycle
* Compilation Model in ASP.NET

### ASP.NET Web Forms

## ASP.NET Programming Model

## Web Forms Code Model

## The code behind Web Forms

## Separation of content & Business logic

## Web Forms Page Life Cycle

### ASP.NET Web Form Controls

* HTML Controls
* HTML Server Controls
* ASP Web Controls
* Writing Inline Code
* Writing Code Separately in Code Behind File

**THE MODULES – Day 36**

### ASP.NET Web Form Event Model

* Understanding Page Level Events
* Control Level events
* Application Level Events
* Session Level Events
* Error Events

### Validation in ASP.NET

* Validation Scenarios
* Understanding the Need for Validation
* Client-side Validation and Server-side Validation
* Using Different Validation Controls
  + Required Field Validator
  + Compare Validator
  + Range Validator
  + Custom Validator
  + Regular Expression Validator

### The ASP.NET Post Back Model

* Understand PostBack model of ASP.NET
* Write code that interacts with the PostBack model of ASP.NET

### Debugging Tracing and Exception Handling ASP.NET Application

* Debugging Tools in Visual studio
* Using Breakpoints
* variable window
* Stepping and Data Viewing
* Understanding Remote Debugging
* Tracing and Handling Page-level errors
* Tracing and Handling Application-level errors
* Handling IIS Related Errors
* **Logging onto File/Server/Database**

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### Creating a Common Layout using Master Pages in ASP.NET

* Describe the concept of a Master Page
* Describe the concept of a Content Page
* Design Master Pages
* Configure Content Pages

### Caching

* Using Cache Object
* Using ASP.NET Output Caching
* Data Caching
* Cache Dependency

### Securing a Microsoft ASP.NET Web Application

* Web Application Security Overview
* Working with Windows-Based Authentication
* Working with Forms-Based Authentication
* Overview of Microsoft Passport Authentication
* Implementing Security to parts of a Web Application

**THE MODULES – Day 38-39**

### State Management in ASP.NET

* Session Objects
* Application Objects
* Cookies and Cookieless Session
* Query String
* View State

### Creating and Consuming Web Services

* The Need for Web Services
  + Evolution of Distributed Application
  + Problems with Traditional Distributed Application
  + Introducing Web Services
  + The Web Technology Stack and .NET
  + The .NET Alternative to Web Services
  + Common Web Services Scenarios
* Web Services Architectures
  + Service-Oriented Architecture
  + Web Service Architectures and Service-Oriented Architecture
  + Roles in a Web Service Architecture
  + The Web Services Programming Model
* The Underlying Technologies of Web Services
  + HTTP Fundamentals
  + XML Essentials
  + SOAP Fundamentals
* Consuming Web Services
  + WSDL Documents
  + Web Service Discovery
  + Web Service Proxies
  + Implementing a Web Service Consumer Using Visual Studio.NET
  + Implementing a Web Service Consumer for Non-.NET Client
* Implementing a Web Service
  + Creating a Web service Project
  + Implementing Web Service Methods

Implementing Web Service Methods, Exposing Them and Controlling Their Behaviour