DOT NET TRAINING SYLLABUS

Section 1: Framework Introduction

- ➢ The .NET Framework – an Overview
- ➢ Architecture of .NET Applications
- ➢ Types of Applications developed using MS.NET

Section 2: Introduction to C#

- ➢ Overview of C#
- ➢ Data types & Variables Declaration
- ➢ Variable & Constant
- ➢ Type Conversion
- ➢ Control Structures
- ➢ Arrays & List

Section 3: OOPS - Object Oriented Programming

- ➢ Classes
- ➢ Objects
- ➢ Encapsulation
- ➢ Inheritance
- ➢ Polymorphism
- ➢ Abstract
- ➢ Interfaces
- ➢ Delegates

Section 4: Exception Handling

- ➢ Introduction to Exceptions
- ➢ Try and catch keywords
- ➢ Using "finally" block
- ➢ Handling and throwing exceptions in .NET

➤ Compiler-generated exceptions

Section 5: Introduction to MSSQL Server

➤ Introduction to databases
➤ Relational database Management concepts
➤ Structured Query Language
➤ Stored Procedures
➤ Functions
➤ Triggers

ASP.NET MVC 5 / WEB API TRAINING SYLLABUS

Section 1: Introduction to ASP.NET MVC

➤ Introduction to MVC Architecture
➤ Advantages of MVC
➤ Why MVC approach?
➤ MVC Architecture
➤ What is View
➤ What is Model

Section 2: ASP.Net MVC Fundamentals

➤ Introduction to Controllers
➤ Creating Controllers
➤ Creating Actions
➤ Action Result
➤ Action Parameters

- ➢ Action Selectors
- ➢ Attribute Routing

Section 3: Views (Razor)

- ➢ Introduction to Views
- ➢ Difference between Razor & Aspx View engines
- ➢ Passing Data to Views
- ➢ View Models
- ➢ Partial Views

Section 4: HTML Helpers

- ➢ Introduction to HTML helpers
- ➢ DisplayNameFor( )
- ➢ DisplayFor( )
- ➢ LabelFor(
- ➢ ValidationMessageFor( )
- ➢ RadioButtonFor( )
- ➢ DropDownListFor( )
- ➢ ListBoxFor( )
- ➢ CheckBoxFor( )

Section 5: Models

- ➢ Introduction to Models
- ➢ Creating Model classes
- ➢ Creating Views using Model Classes
- ➢ Data Annotations in Model

Section 6: Scaffold Templates in MVC

➢ Introduction to scaffold Templates in MVC
➢ Creating controllers and views using scaffolding

Section 7: Action Filters

➢ Introduction to action filters
➢ [HttpPost]
➢ [HttpGet]
➢ [ValidateAntiForgeryToken]
➢ [OutputCache]
➢ [HandleError]
➢ [NonAction]
➢ [ActionName]

Section 8: Data Annotations & Validations

➢ Introduction to Validations
➢ Server-side Validation
➢ Client-side validation

Section 9: Data Annotations

➢ Required
➢ DisplayName
➢ StringLength
➢ Range
➢ Bind
➢ ScaffoldColumn

Section 10: Entity Framework in MVC

- Introduction to Entity Framework
- Architecture of Entity Framework
- DB first approach
- Code First approach

Section 11: Authentication & authorization

- Types of authentication
- ASP.NET identity
- Access restriction
- OAuth

Section 12: WEB API

- Introduction to Web API
- Why Web API?
- Understanding HTTP methods – GET, POST, PUT, DELETE
- Creating API controller
- Web API Routing and Attribute Routing
- Consuming Web API
- Web API Security