

ASP.NET MVC Training Outline

Duration: 60 Hr.

Objectives

- Understand MVC pattern of programming
- Implementing MVC in ASP.NET Framework
- Using ASP.NET MVC to develop web applications
- Learn and use Entity-Framework (ORM) for accessing data

Prerequisites

Duration: 15 Hr.

- HTML, Basic CSS
 - JavaScript
 - Programming using C# (variables, function, class, objects etc.)
 - SQL - Insert, Update, Delete, Select(on single table, join), view
 - Using Visual Studio(VS-2013 recommended)
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Course Outline

Following will be the outline for the training-

- **Basic of MVC** 3 Hr.
 - MVC- an Introduction
 - MVC- difference with other patterns
 - MVC- with ASP.NET (MVC4 or 5 with .NET Framework 4 or 4.5, Visual Studio 2012 or 2013).
 - Package Manager Console - an Introduction and uses
- **ASP.NET MVC** 25 Hr.

- View Engine (Razor)
 - * Introduction
 - * Programming Razor (variables, conditions, loop etc.)
- Adding Model, Controller, View
- Routing
 - * URL conventions
 - * Creating new route
- Communication between M-V-C
Passing Model to the Controller and View
- Scaffolding Controller and View using Model
- Creating and Using Partial View
- C# Code injection in View
- Helpers(Html, Url etc.) in Razor
- Generating and Processing input forms
- **Object Relational Mapping using EF** 10 Hr.
 - Data Retrieval + Manipulation using Entity-Framework (EF)
 - Language Integrated Query (LINQ)
 - Sync Database and EF entities
 - Using EF-Code First and Design First (EF-Code first is preferred)
- **ASP.NET Application Stuffs** 5 Hr.
 - Session
 - Cookies
 - Web Configuration file
 - Global Configuration
 - Bundling Script and CSS files
- **Client Side Scripting** 3 Hr.
 - JQuery
- **Application Deployment** 1 Hr.
 - Web Server (IIS) - an Introduction

- Creating Web Site
- Hosting Web Site in IIS
- Application Configuration
- **Architecting ASP.NET MVC Project** 3 Hr.
 - Separation of Concern (SoC)
 - Scalability Issues
 - Maintainability Issues
- **Discussion on Project work and Project Kick-off** 3 Hr.
- **Mentoring a Project** 7 Hr.

The instructor will be available for problem discussion during the project work. But student have to engage themselves on work. The real project work requires more than 30 Hr. of work, so students are requested to work on their own to complete the project.

Sample Projects

- **Content Management System(CMS)**

It is the website with basic idea of CMS(article, image gallery, menus), with admin panel and web pages.
Estimated Duration: 75 Hr.
- **eBilling System**

The project is about the sales billing of small shop.
Estimated Duration: 70 Hr.
- **Class Room Scheduling Helper**

The project will help the training institute to schedule the class room, assign student and teacher to particular class etc.
Estimated Duration: 75 Hr.