

CodingFactory

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Call-9930178430

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Learn .NET MVC with WCF & Angular

This syllabus is cover all the basic to advance topics of MVC,WCF,ORM & Angular

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1. Module1 .NET Basic
2. Module2 ORM
3. Module3 SOA ,REST.....
4. Module4 MVC

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Module 1 Basic .NET

Topic 1 - .NET Architecture

- .NET Introduction
- CLR, Base Classes and Garbage Collector
- CLS, CTS and Generation of Garbage Collector
- ILDASM, manifest, metadata
- Assembly types-Private, public

Topic2 - C# Language

- Variable, constant and keyword, namespace
- Casting and First C# Program
- Control Statement-if, switch
- Loops-for, foreach and array

Topic 3 - OOPS

- Class, object, Access modifier and abstraction
- Property with Encapsulation
- Constructor and Constructor overloading
- Property with Constructor
- Function and Function Overloading
- Static Members and Static class
- Value type and Reference type and Boxing
- Inheritance & Polymorphism, Function Overriding
- Type of classes-simple, sealed and abstract class
- Interface
- Delegate and Multicast Delegate
- Events
- Partial class and StringBuilder

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Module 2 ORM Object Relational Mapping

Topic 1 - Generics

- Generic collection- List<T>,Dictionary<T,T>
- Generic class
- Generic Methods

Topic 2 - LINQ [Language Integrated Query]

- What is LINQ? Why LINQ?
- Advantage & disadvantage of LINQ
- Restriction Operator-Where
- Projection Operator-Select, SelectMany
- var keyword,Anonymous Type
- Partition Operator-Skip, Take
- Element Operator- First, FirstOrDefault, Last, LastOrDefault, Single, SingleOrDefault, ElementAt
- Ordering Operator-OrderBy, OrderByDescending
- Join Operator- Join [Inner and Outer]
- Conversion Operator- Cast,ToList,ToArray, ToDictionary
- Deferred and immediate execution
- Lazy/deferred and eager loading
- Extension Method
- Best practices to improve LINQ performance

Topic 3 - Entity Framework 6

- What is Entity Framework and ORM?
- Why entity framework?
- History of EF
- Creating Visual and Code Models from Existing Databases
 - Using EF to Interact with Your Data
 - Inserting Objects
 - Querying Simple Objects
 - Updating Modified Objects
 - Retrieving Data with the Find and SqlQuery Methods
 - Deleting Simple Objects

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- Inserting Related Data
- Loading Related Data
- Projection Queries
- Creating a Code Based Model and Database
 - Creating an Entity Framework Model
 - Validating Your EF Model
 - Fixing How EF Interprets Your Model
 - Using Code First Migrations to Create a Database
 - Migrating a Database When Your Model Changes
- How StoreProcedure work in Entity Framework
- IQueryable verses IEnumerable verses IList verses var
- Difference between LINQ and StoreProcedure

Module 3 SOA-Service Oriented Architecture & REST- Representational State Transfer

Topic 1- WCF-Windows Communication Foundation

- Introduction of SOA
- WCF Architecture
- Binding, Endpoint and Contract
- WCF Hosting using Self hosting
- WCF Hosting using IIS hosting
- DataContract & MessageContract
- Host service on Multiple Endpoints
- Consuming Service Using Proxy
- Consuming Service Using Channel Factory
- WCF Channel-OneWay,Request-Reply,Duplex
- Exception Handling Using FaultContract
- Instance management
- Session management
- Transaction management
- Concurrency management
- Security - WCF Authentication & Authorization

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Module 4MVC

Topic 1-ASP.NET MVC 5

- What is MVC and ASP.NET
- Routing Mechanism
- ASP.NET MVC Pipeline
- Understand ViewBag, ViewData, TempData & session
- Attribute Routing
- Introduction to Razor engine
- Html Helpers
 - Inline Html helper
 - Built in Html helper
 - Standard
 - Strongly type
- Understand Model layer
- Model Validation- Client Side and Server Side
- Apply styles
- Layout , Section and ViewStart
- CRUD using Entity Framework
- Passing Form Data using UpdateModel and ModelBinder
- Implement Ajax in MVC
- Implement JQuery in MVC
- Bundling & Minification
- Partial Views
- ActionResult JsonResult
 - JsonResult
 - ViewResult
 - PartialViewResult
 - FileResult
- MVC Filters
 - Authenticate
 - Authorize
 - Action
 - Result
 - Exception
- Custom Form Authentication & Authorization in MVC
- Areas
- Caching
- Create Unit Test
- Deployment

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Topic 2- Dependency Injection & Design pattern

- Implement Dependency Injection in MVC
- Implement Repository pattern in EF & MVC
- Implement Unit Of Work pattern in EF & MVC

Topic 3-ASP.NET Web API-2

- Introduction to REST
- History of Asp.Net Web API
- Fundamentals of ASP.NET Web API
- CRUD Operations Using Web API
- Securing Web API
- Hosting Web API

Topic 4-Angular JS

- A Brief History of Angular
- Advantages of Angular
- Clientside Development with .NET
- File Organization
- Understanding Modules
- Organizing Modules
- Naming Overview
- Namespacing
- Naming Objects
- Creating an Angular View inside and MVC View
- Using Angular Inside MVC Layouts
- Bootstrapping Data in Angular Views
- Mini SPA Introduction
- Creating a Mini SPA Inside an MVC View - Part 1
- Getting Ready for Production

Topic 5-Bootstrap

- Introduction to Bootstrap
- Quick Styles after Dark
- Our First Web Page
- Scripts and Styles
- Core Concepts
- Layout with Bootstrap
- Grid Layouts
- Simple Layout, Fixed Grids, Fluid Grids
- Responsive Design

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- Responsive Utilities
- Typography
- Tables, Forms,Buttons
- Images and Icons
- Bootstrap Components
- Dropdown Menus, Buttons with Menus
- Tabs and Pills,Navbar

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