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| **FullStack.Net Course Contents** |

The Course Content Includes

1. Introduction To Microsoft.Net
2. C#.Net Along with OOPs Concepts
3. SQL SERVER
4. ADO.NET
5. HTML / HTML 5,CSS /CSS3 & JAVASCRIPT, Bootstrap
6. ASP.NET
7. ASP.NET MVC WITH ENTITY FRAMWORK & ADO.NET
8. WEB API
9. JQUERY

Imp Notes

* Assignments & Tests will be conducted after each topics
* Two Projects
  + One using C#,SQL SERVER, ADO.NET, HTML, CSS, BOOTSTRAP, ASP.NET
  + One using ASP.NET MVC, EF, WEB API, JQUERY

# .Net & C# with OOPs Course Contents

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| **C#** | | |
| **Chapter 1 : Introduction to Micorosoft.Net**  **(Day 1,2)**   * Evolution of Microsoft.NET * Architecture of Microsoft.Net * Introduction to .Net Framework 4.0 * What is MSIL? * CLR * .NET Languages * Assembly in .Net –Types of Assembly * The Framework Class Library * Introduction to Visual Studio .NET * Different Types of Projects * Understanding Project & Solution in VS.Net * Entry Point Main Method * Compiling & Building a Project | **Chapter 2 : Language Fundamentals**  **(Day 3,4)**   * Comments and Documenting * Syntax comparison of C# and VB.NET * Data Types (Value types ,Reference Types) * Variables * Operators * Conditional Statements * Switch Case statements * Looping Statements * Functions * Console IO   **Assignment1** | |
| **Chapter 3: Language Features (Day 5)**   * Boxing and Unboxing * Iteration and Flow of Control * Arrays(One Dimensional, Two Dimensional, Multidimensional) * Array Methods * Structures * Enumerations   **Assignment 2** | **Chapter 4: OOPs Concepts (Day 6,7)**   * Object Oriented Programming * Classes & Objects * Methods, Properties * Constructors * Property * Types of Constructors * Inheritance * Types of Inheritance * Polymorphism (Overloading ,Overriding) * Abstraction * Encapsulation * Interfaces * Abstract Class   **Assignment 3** | |
| **Evaluation 1 : TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | | |
| **Chapter 5: Types of Classes, DLL (Day 8,9,10)**   * Partial Classes, Partial Methods * Sealed Class * Static Class * Extension Methods * Namespaces * DLL * Creating a dll file * Advantage of DLL * Using DLL in different application   **Assignment 4** | **Chapter 6: Exception Handling (Day 11,12)**   * Defining Exception * Understandings try and catch keywords * Using “finally” block * “using” statement * Throwing exceptions * Creating User defined/Custom Exception class   **Assignment 5** | |
| **Chapter 7 : File Handling(Day 13,14)**   * Understanding Streams * Working with System.IO namespace * Creating and Reading Text Files * Working with DriveInfo class * Working Directory Class * Working with File Info class   **Assignment 6** | **Chapter 8: Collection Framework (Day 15,16)**   * Introducing Collections. * Benefits of Collection Classes. * Understanding and using commonly used collections. * ArrayList, HashTable, Lists * Constraint on Type Parameters.   **Assignment 7** | |
| **Evaluation 2 : TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | | |
| **Chapter 9 : Delegates & Events (Day 17)**   * What is Delegate & Why Delegate * Creating a Delegate – * Singlecast Delegate * Multicast Delegate   **Assignment 8** | **Chapter 10 : Threading ( Day 18)**     * Understanding Thread & Process * Difference between Single & Multi Thread Application * Creating Threads ,Thread Methods   **Assignment 9** | |
| **Evaluation 3 :TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | | |
| **ADO.Net** | | |
| **Chapter 11 : Introduction to Ado.net ( Day 19)**   * ADO.NET Overview * .Net Data Providers * Creating Connections with Databases * Understanding Commands * Creating Commands * Executing Commands * Execute Insert, Update , Delete   **Assignment 10** | | **Chapter 12 : Advanced Ado.net ( Day 20)**   * Connected & Disconnected Architecture * Data Readers * Datasets * Data Tables * Data Adapters * Reading Data using Connected Architecture * Reading Data using Disconnected Architecture * Working with Transactions   **Assignment 11** |
| **Evaluation 4 :FINAL TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | | |

# ASP.NET

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| **ASP.Net** | |
| **Chapter 1: Introduction to ASP.NET (Day 1,2,3)**   * Introduction to Client side & Server side programing * What is ASP.NET * What is Page in ASP.NET * Page Layout * Understanding Asp.Net Page * Understanding Design View & Code Behind * Relating Design View with Code Behind * Events of Asp.Net Page * Page Life Cycle * Page Postback * Static & Dynamic Controls * Introduction to Asp.Net Controls * Understanding attributes of Asp.Net Controls * Events of Asp.Net Controls * Understanding & Using Label Controls * Understanding & Using Textbox Controls * Understanding & Using Button Controls   **Assignment1** | **Chapter 2: Understanding & Using Asp.Net Controls (Day 4,5,6)**   * Understanding & Using Hyperlink Controls * Understanding & Using Checkbox Controls * Understanding & Using Radio Button Controls * Understanding & Using File Upload Controls * Understanding & Using DateTime Controls * CURD Operation using Asp.Net Controls * Creating Registration forms and submitting data into databases * DropDownList * Binding DropDownList with Databases * Events of Dropdown List * Navigation controls   **Assignment2** |
| **Evaluation 1 : TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | |
| **Chapter 3 : Validation ( Day 7)**   * Introduction to Validation * Use of Validation * Client Side Validation and Server Side Validation * Validation controls in Asp.Net * RequiredFieldValidator * CompareValidator * RangeValidator * RegularExpressionValidator * Validation Summary in Asp.Net   **Assignment3** | **Chapter 4: GridView (Day 8,9)**   * Use of GridView * Binding of GridView * Events of GridView * Edit, Delete Database Operations using GridView   **Assignment4** |
| **Chapter 5 : UI Designing (Day 10.11)**   * Adding Style Sheets to Web Pages * Creating Layouts , Menus * Creating Master Pages * Creating Child Pages * Creating User Controls   **Assignment5** | **Chapter 6 : State Management(Day 12,13)**   * Introduction to State Management * Understanding & Using Query Strings * Understanding & Using View States * Understanding & Using Sessions * Understanding & Using Application objects * Understanding & Using Cookies   **Assignment6** |
| **Chapter 7: Exception Handling, Caching**  **(Day 14,15)**   * Page Level Exceptions * Site Level Exceptions * Custom Error Pages * Tracing * Caching in Asp.Net * Page Output Caching * Data Caching, Page fragment caching   **Assignment 7** | **Chapter 8 : Security in Asp.Net (Day 16,17)**   * Introduction to Authentication & Authorization * Types of Authentication * Permission to  Users & Roles   **Assignment8** |
| **Evaluation 2 : TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | |
| **Chapter 9 : Configuration (Day 18)**   * Introduction to Config Files * Use of Config files in asp.net * Setting Configuration in web.config * Reading configuration from web.config | **Chapter 10 : IIS (Day 19)**   * Understanding IIS * Architecture of IIS * Deployment of asp.net application in IIS * View Asp.net Application through Browser * Application Pools of IIS * Resetting IIS |
| **Evaluation 3: FINAL TEST / EXAM TO GAUGE THE PERFORMANCE (Mockup Interview)** | |
| **PROJECT IMPLMENTATION USING C#,SQL SERVER, ADO.NET ,ASP.NET, HTML, CSS, BOOTSTRAP** | |

# ASP.NET MVC

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| **Asp.Net MVC Course Contents** |
| **Introduction to MVC**   * What is MVC * Introduction to Asp.Net MVC * Difference between Asp.Net & Asp.Net MVC * Why .Net Introduced Asp.Net MVC * History of MVC * Understanding MVC * Understanding Model in MVC * Understanding Controller in MVC * Understanding View in MVC * Understanding Architecture of MVC * Flow of MVC Application * Advantages of MVC   **Exploring Controllers**   * Viewdata, View bag & Tempdata * Difference between Viewdata, Viewbag & Tempdata * Sending data from Controller to View * Sending data from View to controller * Controller Action Methods * Controller Action Method Parameter * Controller Action Filters * Controller Action Custom Filters   **Creating MVC Application**   * Creating MVC Application * Understanding Linking of Model-View-Controller * Creating View using html controls * Creating Database Application using SQL Server * Creating CRUD Application using MVC & SQL Server   **Using HTML HELPER Controls in MVC**   * Using Html Helper Controls   + Label   + Editor   + TextBox   + CheckBox   + RadioButton   + DropDownList   + FileUpload   + FileDownLoad   + Grids * Understanding Strongly Typed Helpers * Html Helper Model Binding * Html Helper Display and Editors Methods * Html Helper Viewdata Binding   **Validation and Annotation**   * Model Validation * Unobtrusive Client Validations * Metadata Validation * Client Side Validation * Server Side Validation   **Entity Framework and Linq**   * Introduction to LINQ * LINQ Syntax * LINQ to SQL * Introduction to Entity Framework * Creating Application using EF in MVC * Working with Database first Approach in MVC * Auto generation of Model, Controller & View in MVC Using EF * Working with Code first in MVC * Understanding Model first approach * MVC and EF Crud Operations * MVC and EF Crud Operation Using BO Class * MVC and EF Crud Operations Using Generic BO Class   **Areas**   * Understanding Areas in MVC * Creating Areas in MVC * Linking Areas in MVC   **Filters**   * Working with MVC Filters   + What are Filters?   + Implementing Filters.   + Authorize Filter.   + Overriding filtering.   + Customization of Filters.   **Layouts in MVC**  **Partial View in MVC**  **Bundling and Minification**  **URL Routing**  **Security**   * Authentication and Authorization * Windows Authentication * Forms Authentication * Role Based Authentication * Anti-Forgery Token   **WEB API**   * Introduction to WEB API * Developing Single Page Application in MVC using Web API.   + WEB API Structure.   + Understanding WEB API.   + Using WEB API. For CRUD Operations.   **JQuery and Ajax**   * Introduction to JQuery * Using JQuery from CDN * Integration of JQuery with MVC * Applying JQuery on the Page * Working with JQuery Selectors * JQuery Events * Applying JQuery Validations * Different types of Validations * JQuery UI Controls * Dialog Boxes of JQuery * JQuery Ajax Helper Methods Controller * Calling Actions from JQuery |