

#Learn_from_Home

Asp.Net Professional

Course Code: LFH/DOTNET/04

Duration: 90 hours

Course Syllabus

INTRODUCTION

This industry oriented course is developed by both the Software development division & Training division of **ipsr solutions limited**. IPSR is a **public limited IT company** with 20 years of expertise in [Software product development](#), [Training services](#), [Placement services](#) & [Digital Marketing services](#). During the past 2 decades, IPSR has trained candidates from **50+ countries** and helped **40000+ candidates** to build their IT career. Our IT services division is a pioneer in development of **Academic solution products**, incorporating cutting edge technologies like Artificial Intelligence, Data Analytics and Machine learning. Live industry experts from this IT division contribute a major role in delivering this course. Our placement division is having **1500+ placement tie-up companies** and we are conducting [recruitment on all days](#).

The Course curriculum is designed and developed by a team of expertise panel lead by following academicians

❑ **Dr. Mendus Jacob, M.Sc., M.Phil., Ph.D., MloD**

- ❑ M.D & C.E.O - IPSR & Valin Technologies, U.K.
- ❑ Director - MCA, Marian College, Kuttikkanam (Autonomous)
- ❑ Former Director of School of Applicable Mathematics, M.G. University.
- ❑ Academician and Entrepreneur with 30+ years experience

❑ **Dr. Sunil Job K.A, M.Sc, M.Ed, M.Phil, Ph.D., RHCE**

- ❑ Chief of Academic Solutions - IPSR
- ❑ Former college Principal and a Specialist in Data Analytics & Machine Learning
- ❑ Blogger and a Resource person for National conferences
- ❑ Academician with 25+ years experience



What you'll learn

- ✓ .Net Framework Architecture, C# Language Basics, Functions, Arrays, Collections, Generics, OOPS
- ✓ Web Development Basics – HTML, CSS, JavaScript
- ✓ SQL Server, Server Controls, DB Programming with SQL Server, File Operations, Ajax Server Controls.
- ✓ MVC Architecture, Entity Framework, Razor View Engine, Ajax JQuery, Code first Approach.

Description

This course covers the basic C# programming, web development technologies such as HTML, CSS and JavaScript, web application development using Asp.Net and MVC architecture, how to use strongly typed models in your views; how to build models with Entity Framework; and how to create your own custom validation attributes and develop dynamic applications in Code First Approach.

Course Outcome (CO)

While successfully completing this course, the learner will be able to:



→ Build and maintain applications with ASP.NET MVC in Code First Approach.

What does this course give you?

- Skills need to become a C# programmer
- Skills need to develop web applications using Asp.Net
- Skills need to develop dynamic web applications using ASP.NET MVC framework that enables a clean separation of concerns, fast development, and TDD friendly.

Course content

MS.NET Framework Introduction

- The .NET Framework - an Overview
- Framework Components
- MS.NET Base Class Library
- MS.NET Namespaces
- The Common Language Runtime (CLR)
- MS.NET Memory Management / Garbage Collection
- Common Type System (CTS)
- Common Language Specification (CLS)

VS.NET and Entry Point Method –Main

- Introduction to Project and Solution in Studio
- Entry point method - Main.



- Compiling and Building Projects

Language Syntax

Basic C# Syntax

Comments

Data Types, Variables

Value type and Reference Type

Operators

Flow Control and conditional statements

Arrays

Initializing Arrays

Accessing Array Elements

Different Type of Arrays

Array Functions

Methods

Defining Methods in C#

Calling Methods in C#

Recursive Method Call .



Passing Parameters to a Method

Passing Parameters by Value

Strings

Creating a String Object

Properties of the String Class

Methods of the String Class

Collections

ArrayList

SortedList

Hash Tables

Stack

Queue

Generic Collections

List<T>

Dictionary<TKey,TValue>

OOPs-Concept

OOP's Overview.

Classes and Objects



Constructor –Types of Constructor

Types of Inheritance

Polymorphism

- Overloading and Overriding

Encapsulation

Overview of Abstract Class & Interface

Interface and abstract class with examples

Web Development Basics

HTML

CSS

JavaScript

Web Application

- Creating Web form application
- Web Control Class
- Managing Server Controls
- Standard Webcontrols and Events
- Handling images
- Navigating Between Pages
- ListControls
 - Dropdownlist
 - Listbox



- o CheckboxList etc

- Creating
- Using file upload control and Restrictions

Validation Controls

- Asp.net validation controls
- Configuring validation controls

DATABASE Programing with SQL Server

ADO.NET (Working with Database)

Overview of ADO.NET

Connection object

Command object

Execution Methods

Data Readers

Forms with database connectivity

Disconnected Architecture

SqlDataAdapter

Dataset

Datatable

Working With DataControls(Gridview)

GridView Operations



State management

Preserving state in web applications

Client and Server side StateManagement

Create a simple Registration Form using StateManagement

MasterPage and Themes

Configuring Master Page creating Themes

Applying Themes

Applying External Style Sheet

Working with Template

DataBase Connection with Different Architecture

Introduction of Two tier Architecture

Working with Two Tier Architecture

Introduction of Three tier Architecture

Working with Three Tier Architecture

Working with Stored Procedure



File Operation

File I/O Streams

Working with Directory and Files

Read and Write File

Ajax Server Controls

LINQ

Introduction to LINQ

LINQ to DataSet

LINQ to SQL

LINQ to XML

Introduction to ASP.NET Core

Introduction

What is ASP.NET Core?

ASP.NET Core Features

Advantages of ASP.NET Core v MVC Pattern

Understanding ASP.NET Core MVC

ASP.NET Core vs. ASP.NET MVC vs. ASP.NET Web Forms

ASP.NET Core First Application

ASP.NET Core Environment Setup

ASP .NET Core First Application

Project Layout



Understanding Life Cycle of ASP.Net Core Request

Controllers & Action Methods

Controllers Overview

Action Methods and IActionResult object

Passing data from Controller to View

Understanding Action Selectors

Views

Introducing Razor View

Advantages of Razor View

Razor Syntax v

Types of Views

Partial View

Layout Pages

Models

Create Model Class

Create Tables

What is Context Class

Bind Data in Models

MVC and Entity Framework Core



Basic CRUD Operations using Entity Framework

Sessions

Ajax and jQuery

Image/File uploading,

Registration and Login Concept

Contact Us

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We have branches at Kochi, Thiruvananthapuram, Calicut and Bengaluru.