[.NET Course Online - ASP .NET Programming Certification Training](https://intellipaat.com/dot-net-programming-certification-training-course/)

### .NET and ASP.NET MVC Course Curriculum

### **Week 1**

### ****Introduction to the .NET Framework 4.6****

* What is the .NET platform
* What is the .NET framework
* The .NET framework, languages, and tools
* The .NET framework: Major components
* Common Language Runtime (CLR)
* Compilation and execution in .NET
* The .NET framework 4.6 stack
* New productivity enhancements in VS2012

### ****Introduction to C# 6.0****

* Features of C#
* C# compilation and execution
* General structure of a C# program
* Creating and using a DLL

### ****Data Types and Arrays in C#****

* Data types in C#
* Value types and reference types
* Boxing and unboxing
* Single-dimensional, multi-dimensional, and jagged arrays
* Nullable types
* Implicitly typed local variables

### ****Object-Oriented Programming (OOP) with C#****

* Classes and objects
* Constructors
* Structures in C#
* Inheritance
* Properties and indexers
* Function overriding
* Abstract class, virtual and abstract methods, sealed class
* Interfaces
* Method parameters (out, ref, and params)
* Object initializers

### ****Delegates, Events, and Lambdas****

* The concept of delegates
* Example of delegates
* Multicast delegates
* Understanding C# events
* .NET event guidelines
* Anonymous methods
* Lambda expressions

### ****Exception Handling in C#****

* Exception handling in C#
* The System.Exception class
* Multiple catch statements
* User-defined exceptions

### ****Week 2****

### ****Garbage Collection in C#****

* Role of a garbage collector
* Garbage collection algorithm
* Finalize vs Dispose

### ****Collections and Generics****

* System.Collections namespace
* Collection interfaces
* Collection classes
* The Collection API
* Working with generics
* Generic methods, interfaces, and delegates
* Collection initializers
* Iterators

### ****IO and Serialization****

* Need for serialization
* Formatters
* Binary and SOAP serialization
* Using I/O
* System.IO namespace
* Directory and file info types
* Basic file I/O

### ****Assemblies, Reflection, and Attribute-based Programming****

* Introduction to .NET reflection
* Obtaining details about types from the assembly
* Obtaining details about methods, properties, and fields
* Creating custom attributes
* Retrieving attribute details with reflection

### ****ASP.NET MVC (Week 3)****

### ****Fundamentals of ASP.NET MVC 5****

* The ASP.NET MVC framework
* ASP.NET vs. ASP.NET MVC
* ASP.NET MVC model

### ****Exploring Controllers****

* Working with controllers
* Routing
* Attribute routing
* Action methods
* Passing data from controller to view

### ****Working with Views****

* ASP.NET MVC Razor view engines
* HTML helpers
* Layouts in Razor views

### ****Exploring Models and Working with Data****

* Model binding
* Data annotation

### ****Week 4: Advanced Topics****

### ****Entity Framework 6 with ASP.NET Scaffolding****

* The Code First model
* Multiple migrations
* Scaffolding

### ****Web Optimization with ASP.NET MVC****

* Web optimization
* Bundling and minification
* Configuring bundles

### .NET and ASP.NET MVC Course Overview

This .NET and ASP.NET MVC course is designed for professionals who want to develop enterprise-level applications using the .NET Framework and C#. You’ll master key programming concepts, object-oriented techniques, and how to build modern web applications using ASP.NET MVC, Entity Framework, and Razor views.

### Why should I learn .NET and ASP.NET MVC?

* It's one of the most in-demand frameworks for enterprise and web development.
* Companies across domains use .NET for secure, high-performance applications.
* ASP.NET MVC enables building scalable and maintainable web apps.
* With C# and .NET skills, you can work on desktop, cloud, and web platforms.

### What will I learn in this .NET course?

* Develop applications with C# 6.0
* Work with data types, arrays, OOP, delegates, and exception handling
* Perform serialization, reflection, and generics
* Build and structure web apps using ASP.NET MVC
* Implement Entity Framework Code First and use scaffolding
* Optimize websites using bundling and minification