

€ TRAINING

Microsoft ASP.NET





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Introduction:

Microsoft ASP.NET Active Server Pages .NET is a powerful framework for building dynamic, data-driven web applications and websites. This training course is designed to provide participants with a comprehensive understanding of ASP.NET, its core concepts, and practical skills for developing web applications using this technology. Whether you are a beginner or an experienced developer looking to enhance your ASP.NET skills, this course will equip you with the knowledge and tools you need to succeed.

Course Objectives:

Upon completing the Microsoft ASP.NET training course, participants will be able to:

- Understand the fundamentals of ASP.NET and the .NET framework.
- Develop web applications using ASP.NET Web Forms and MVC.
- Create interactive and responsive user interfaces with ASP.NET.
- Utilize database connectivity to build data-driven applications.
- Implement security measures to protect web applications.
- Optimize and troubleshoot ASP.NET applications for performance.
- Work with advanced ASP.NET features such as Web API and SignalR.
- Collaborate on web development projects using ASP.NET.
- Stay up-to-date with best practices and emerging trends in ASP.NET development.
- Prepare for Microsoft certification exams related to ASP.NET optional.

Targeted Audience:

This Microsoft ASP.NET training course is suitable for:

- Beginner and intermediate web developers looking to learn ASP.NET.
- Experienced developers who want to upgrade their skills in ASP.NET.
- IT professionals interested in building robust web applications.
- Web designers looking to integrate their designs with dynamic content.
- Anyone aiming to pursue a career in web development with ASP.NET.

Course Outline:

Unit 1: Introduction to ASP.NET

- Understanding the .NET framework
- Overview of ASP.NET and its components
- Setting up the development environment

ASP.NET Web Forms

- Creating web forms and controls
- Handling user input and events
- State management in ASP.NET

Unit 2: ASP.NET MVC

- Introduction to Model-View-Controller architecture
- Creating MVC applications
- Routing and controllers

User Interface Development

- Designing web pages with ASP.NET
- Using CSS and JavaScript in ASP.NET
- Responsive web design techniques

Unit 3: Data Access with ASP.NET

- Connecting to databases
- CRUD operations with ASP.NET
- Entity Framework and LINQ

Security in ASP.NET

- Authentication and authorization
- Implementing security features
- Protecting against common web vulnerabilities

Unit 4: Performance Optimization

- Profiling and debugging ASP.NET applications
- Caching and performance tuning
- Load balancing and scalability

Advanced ASP.NET Features

- ASP.NET Web API for building RESTful services
- Real-time web applications with SignalR
- Integration with third-party libraries and APIs

Unit 5: Collaboration and Source Control

- Collaborative development with Visual Studio
- Using source control systems like Git
- Team-based web development workflows
- Revision
- Workshop