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## Advanced Web Application Technologies with Microsoft Visual Studio 2005

**Duration: 2 Days    Course Code: M2544**

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### Overview:

This two-day instructor-led workshop provides students with the knowledge and skills to develop Microsoft ASP.NET 2.0 Web applications using Microsoft Visual Studio 2005. The workshop focuses on advanced user interfaces, Web site functionality, and implementation details using the advanced features of ASP.NET 2.0 and Visual Studio 2005.

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### Target Audience:

This workshop is intended for corporate or independent software vendor (ISV) application developers who have a desire to learn more about specific technology areas in Web application development.

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### Objectives:

- After completing this workshop, students will be able to:**
- Build dynamic Web applications.
  - Create controls for Web applications.
  - Optimize Web applications.
  - Build customizable Web applications.
  - Build Web Part pages and Web Parts.
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### Prerequisites:

**Before attending this workshop, students must:**

- Have attended or studied Workshop 2543A, Core Web Application Technologies with Visual Studio 2005, or possess equivalent knowledge and skills.
- Know how to use delegates and events.
- Know how to improve the security of .NET Framework 2.0 applications.
- Be able to use instrumentation in code.

### Testing and Certification:

**The following exams relating to this course.**

- Exam 70-528 TS: Microsoft.NET Framework 2.0 - Web-based Client Development
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### Follow-on-Courses:

- M2541 Core Data Access Development With Visual Studio 2005

**OR**

- M2542 Advanced Data Access with Microsoft Visual Studio 2005
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## Content:

### Session 1: Unit 1: Building Dynamic Web Applications:

- This unit introduces many different aspects of dynamic Web applications. It includes discussions on creating and configuring controls at run time. It then explains how to build dynamic globalization features into a Web application.

#### Lessons:

- Dynamic Control Creation
- Localization and Globalization
- Dynamic Master Pages
- Dynamic Web Configuration
- User Controls
- Custom Web Server Controls
- Composite Web Server Controls
- Templated Controls
- The Page Scripting Object Model
- Tracing and Instrumentation in Web Applications
- ASP.NET 2.0 Caching Techniques
- Asynchronous Processing in Web Applications
- Web Farm Development Considerations
- ASP.NET 2.0 Personalization Features
- Theme Support in ASP.NET 2.0
- Lab : Implementing Personalization and Themes in Web Applications
- Configuring Personalization
- Implementing Personalization Functionality
- Adding Themes to the Web Application
- Implementing Personalized Themes

#### Lab : Building Dynamic Web Applications:

- Dynamically Adding and Configuring Controls
- Dynamically Applying Master Pages
- Adding Localization Features
- Dynamically Configuring Web Applications

#### After completing this unit, students will be able to:

- Explain dynamic control creation in ASP.NET 2.0.
- Add and configure controls dynamically.
- Explain how to incorporate globalization and localization features into Web applications.
- Add localization features to a Web application.
- Describe when and how to implement dynamic master pages.
- Apply master pages dynamically.
- Describe dynamic Web configuration scenarios.
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- Describe templated controls and the interfaces that enable their implementation.
- Create templated controls.
- Describe the Page Scripting Object Model.
- Access Page Scripting Object Model functionality.
- Explain how to use tracing and instrumentation to monitor and improve the performance of a Web application.
- Implement tracing and instrumentation in Web applications.
- Describe ASP.NET 2.0 caching techniques.
- Implement ASP.NET 2.0 caching techniques.
- Explain how asynchronous processing can lead to improved performance for Web applications.
- Implement asynchronous processing in Web applications.
- Describe strategies for dealing with session state management issues when deploying Web applications in a Web farm environment.
- Develop Web applications for Web farm environments.
- Describe the personalization features provided by ASP.NET 2.0.
- Describe ASP.NET 2.0 theme support.
- Configure personalization for a Web application.
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- Describe what a Web Part is and the

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- Describe what a Web Part is and the purpose of Web Parts.
- Describe the components of a Web Part page and identify scenarios when Web Part pages are useful features of Web applications.
- Describe the more advanced features of Web Parts, including connections between Web Parts.
- Create Web Part pages.
- Create Web Parts.
- Create connected Web Parts.

### Session 2: Unit 2: Creating Controls for Web Applications:

- This unit explains how developers create different types of controls for different scenarios. The different types of controls include user controls, custom Web server controls, composite Web server controls, and templated controls.

#### Lessons:

- Dynamic Control Creation
- Localization and Globalization
- Dynamic Master Pages

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### Session 3: Unit 3: Optimizing Web Application Performance:

- This unit introduces topics that will help you improve the performance of Web applications. It describes how the Page Scripting Object Model can help reduce the number of round trips for communication between the server and the

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### Lab : Optimizing Web Application Performance:

- Accessing the Page Scripting Object Model
- Implementing ASP.NET Caching Techniques
- Implementing Tracing and Instrumentation Techniques in Web Applications
- Implementing Asynchronous Processing in Web Applications

**After completing this unit, students will be able to:**

page and identify scenarios when Web Part pages are useful features of Web applications.

- Describe the more advanced features of Web Parts, including connections between Web Parts.
- Create Web Part pages.
- Create Web Parts.
- Create connected Web Parts.

### Session 5: Building Web Part Pages and Web Parts:

- This unit introduces the concept of a Web part, and describes how it is used in portal pages and other scenarios. It introduces the concept of a Web part page, and discusses how a Web part page contains some Web parts that provide

#### Lessons:

- What Is a Web Part?
- What Is a Web Part Page?
- Connected Web Parts

### Lab : Building Web Part Pages and Web Parts:

- Creating a Web Part Page
- Creating a Web Part
- Creating Connected Web Parts

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**Lab : Creating Controls for Web Applications:**

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**Session 4: Unit 4: Implementing Personalization and Themes in Web Applications:**

- This unit introduces building customizable functionality into a Web application by adding personalization support. It discusses using the personalization features of ASP.NET 2.0 to provide this functionality. In addition, it di

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Elements of this syllabus are subject to change.

**Further Information:**

For More information, or to book your course, please call us on +966 1 488 8484

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