



# Web Services Using C# and ASP.NET

## วัตถุประสงค์

- Explain how Web services solve problems encountered with traditional approaches to designing distributed applications.
- Describe the architecture of a Web services-based solution.
- Describe the underlying technologies of Web services and explain how to use the Microsoft .NET Framework to implement them.
- Implement a Web service consumer by using Visual Studio .NET.
- Implement a simple Web service by using Visual Studio .NET.
- Publish and deploy a Web service.
- Secure a Web service.
- Implement caching in a Web service
- Evaluate the trade-offs and issues that are involved in designing a real-world web service.
- Implement nonstandard web service such as Hypertext Markup Language (HTML) screen scraping and aggregating web service.

## ความรู้พื้นฐาน

- มีพื้นฐานการเขียน ASP.NET มาก่อน และสามารถสร้าง Web Form ให้ทำงานกับ User Control พื้นฐานได้
- สามารถสร้าง Project ด้วย Visual Studio.NET มาก่อน
- มีพื้นฐานการทำงานกับ ADO.NET มาก่อน



### ความต้องการของระบบ

- ระบบปฏิบัติการ Windows XP / Windows Vista / Windows 7
- โปรแกรม Microsoft Visual Studio .NET 2008
- Internet Information Service (IIS)
- Microsoft SQL Server 2005 Express

### ระยะเวลาในการอบรม

- 20 ชม (3 วัน)

### ราคาคอร์สอบรม

- ❖ 9,000 บาท (ราคานี้ยังไม่ได้รวมภาษีมูลค่าเพิ่ม)

### หลักสูตรการอบรม

#### 1. What Are Web Services?

- Introduction to Distributed Computing
- Network Latency
- Object State and Scalability
- Interoperability
- SOAP
- WSDL
- UDDI
- Web Service Business Models
- Service Oriented Architecture (SOA)
- ASP.NET Web Services
- Web Service Enhancements (WSE)
- Windows Communications Framework (WCF)

#### 2. Web Services Fundamentals

- Creating a Web Service Using ASP.NET



- Deploying a Web Service Using IIS
- Testing a Web Service
- HTTP
- XML
- SOAP 1.1 and SOAP 1.2
- Web Service Clients
- WSDL

### **3. Developing ASP.NET Web Services**

- Using Visual Studio 2005 to Develop Web Services
- Visual Web Developer
- Using ASP.NET Development Server
- An Overview of the Web Services Namespaces
- Deriving from the WebService Class
- @Webservice Attribute
- WebService Class
- Adding a WebMethod to Web Services
- Debugging Web Services
- WS-I Basic Profile
- ASP.NET Configuration

### **4. Web Service Clients**

- Web Service Proxies
- Web Services Description Language Tool (Wsdll.exe)
- Understanding the Proxy Code
- Creating a Proxy with Visual Studio 2008
- Returning Complex User-Defined Data Types

### **5. ASP.NET Web Services Programming Model**

- Asynchronous Programming in Web Services
- Asynchronous Events in .NET 3.5



- Managing State in ASP.NET Web Services
- Transactions in ASP.NET Web Services
- Caching in ASP.NET Web Services

## 6. XML Serialization

- XmlSerializer
- What Is Not Serialized
- Writing and Reading XML
- Customizing XML Serialization
- XML Schema and XSD
- Creating Classes from Schemas
- XML Serialization and Web Services

## 7. More about SOAP

- The Structure of SOAP Messages
- Using SOAP Headers
- SOAP Faults
- Document and RPC Style Messaging
- Literal and Encoded Use
- Customizing SOAP with Attributes
- Using SOAP 1.2

## 8. More about WSDL

- The Need for Service Description
- An IDL for Web Services
- WSDL Namespaces
- The WSDL Description Model
- WSDL Descriptors as Schem
- Message Description
- Messaging Scenarios
- Operations: Input, Output, and Fault



- Messages
- Service Description
- Extending WSDL
- .NET WSDL Classes

## **9. Data Access with Web Services**

- Multiple-Project Solutions in Visual Studio
- Multiple-Tier Data Access
- Data Access Using ADO.NET 3.5
- Data Access Web Service
- Data Binding with Windows Forms
- Using Typed DataSets
- Binding to a Web Service

## **10. WSE and Web Services Security**

- Web Service Enhancements (WSE)
- Windows Communications Framework (Indigo)
- When to Use WSE
- WSE Architecture
- A WSE-Enabled Web Service
- WSE Settings Tool
- WSE Message Tracing
- A WSE-Enabled Client
- Web Services Security
- Server Authentication
- X.509 Certificates
- Policy Files
- User Name Authentication