Introduction to Service Oriented Architecture and Web Services

Course Summary

Description

This course provides an overview of Service Oriented Architecture and Web Services, including an explanation of what SOA is and the business justification for moving to a service-oriented architecture. The topics covered include the basic technologies required to implement SOA, including XML, web services and protocols. Web services and the technologies that support them are covered in greater depth, to provide an understanding of what tools, skills and decision are required to implement SOA with web services. This is not a hands-on technical lab class, but the instructor provides demonstrations of some of the key concepts.

Topics

- Business Justification for SOA
- SOA Design Principles
- Services
- Web Services
- Protocols and XML
- Tools
- Service Oriented Modeling and Analysis
- Enterprise Integration

Prerequisites

There are no prerequisites for this course.

Audience

This course is designed for managers, architects, designers, developers or any other IT professionals who need a general introduction to the terms and concepts used in SOA and Web Services.

Duration

Two days

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Course Outline

I. Introduction
- A. What is SOA?
- B. SOA vs. OO
- C. Implementing SOA

II. Business Justification for SOA
- A. Change
- B. Development and Implementation Time
- C. Flexibility
- D. Simplification

III. SOA Design Principles
- A. Loose coupling
- B. Location transparency
- C. Interoperability
- D. Encapsulability

IV. Services
- A. Transactions
- B. Processes
- C. Business functions
- D. Technical functions
- E. Web Services

V. WebServices
- A. Benefits
- B. Requirements
- C. Extending Business Processes
- D. Portals and Web Services

VI. Protocols and XML
- A. UDDI
- B. WSDL
- C. SOAP
- D. HTTP
- E. XML

VII. Tools
- A. IBM WebSphere Application Developer
- B. Microsoft .NET

VIII. Service Oriented Modeling and Analysis (SOMA)
- A. Conceptual Model
- B. Context
- C. System Analysis
- D. Component Specification
- E. Patterns and Practices

IX. Enterprise Integration
- A. An Integration Infrastructure
- B. Broker Components
- C. Choreographer Components
- D. Managing Transactions
- E. Data Issues
- F. Data and Service Modeling

X. Conclusion

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