

SERVICE-ORIENTED ARCHITECTURE (SOA) INTRODUCTION

Course number : 137

Overview

Support the modern applications that your organization relies on by gaining the skills to design, build, and maintain a Service-Oriented Architecture (SOA). In this SOA training course, you learn how to create an effective SOA by modeling, designing, and orchestrating services that merge the business and technical requirements of your organization.

What you'll learn

- Develop and manage a modern SOA
- Map an organization as a set of services
- Model the SOA messages from business use cases
- Design to facilitate integration and performance

Who should attend

Pre-requis

- Some involvement creating business applications

Outline

Overview of SOA

- Integrating business processes with SOA
- Deriving services from the organization's purpose
- Merging SOA design and project management processes

Service-oriented design process

- Progressing from conceptual to buildable services
- Structuring business requirements into an SOA
- Aligning services with the organization

Turning services into modern applications

- Working forward to deliver applications
- Realizing the key SOA design patterns

Discovering conceptual services

- Defining the service domain
- Recognizing service opportunities
- Drilling down into atomic services
- Consolidating into composite services

Refining the conceptual design

- Identifying the underlying resource for the service
- Selecting services to include in the SOA
- Merging existing assets with new opportunities

Developing logical services

- Integrating consumers
- Exploiting the five composition styles
 - Bus
 - Hierarchical
 - Star
 - Network
 - Circular

Achieving effective designs

- Supporting loose coupling
- Establishing relationships between services
- Handling sequential processing

Addressing the business needs

- Designing for reuse and integration
- Decomposing to create reusable services

Factoring in brokers

- Identifying “services for services”
- Leveraging the seven categories of brokers

Specifying operations

- Deriving operations from use cases
- Identifying design flaws early to take corrective action
- Focusing on resources rather than actions

Communicating the specification

- Constructing reusable service actions
- Expressing your design as a specification

Messaging for services

- Formatting the operation's messages
- Evolving messages from the SOA design

Finalizing the service design

- Specifying operations and endpoints
- Binding messages to operations

Planning for implementation

- Picking the right technology set
- Matching technology to the three SOA scenarios
- Dealing with long-running business processes

Building services

- Creating services from the SOA modeling process
- Developing service consumers
- Orchestrating services to deliver new functionality

Structuring services

- Merging interoperability performance with Star pattern
- Providing for responsive Ajax applications

Applying “Lessons Learned” to improve designs

- Facilitating asynchronous services
- Dealing with change and growth

Ensuring performance

- “Chatty” vs. “Chunky” messages
- Combining services through effective message design

Instituting an SOA infrastructure (SOAIS)

- Advancing up the Services Integration Maturity Model
- Leveraging Enterprise Services Buses (ESB)

Schedule

Location Dates Status

Tuition

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