Introduction to Service Oriented Architecture

The emergence of Service Oriented (SOA) and Web Services has opened up new opportunities for integrating software within and across organizations. This course provides an initial view of what it means to be service oriented and how SOA can be applied to business and technical problems. It teaches the concepts behind SOA and Web Services, architectural views, and the fundamental Web Services. It includes practical knowledge regarding the people and processes involved in delivering in the SOA framework.

The goal of this course is to provide a broad understanding of the concepts and issues surrounding adoption of SOA and Web Services as a foundation for the technical, business or enterprise aspects of this emerging technology.

Objectives:
- Understand the basic SOA and Web Services concepts
- Understand the relationship between SOA and Web Services
- Understand the skills and practices for creating Service Oriented Architecture
- Learn to use Web Services with SOA
- Reinforce understanding through lab exercises

Topics covered:
- What is SOA
- Introduction to the major components of Web Services
- Introduction to views of Service Oriented Architecture
- Roles and responsibilities for developing SOA applications
- SOA and Web Services: fact and fiction

Audience:
This course is designed for managers, analyst, developers, designers, testers, and other project team members who need a basic understanding of SOA and Web Services. This course is also useful for technical leads and supervisory personnel who oversee development of systems and require an understanding of the goals and processes.
Prerequisites:
Prior development experience helpful

Duration:
1 day

Outline:

1. What is Service Oriented Architecture?
   • Definition of terms and acronyms
   • The context for SOA
   • SOA defined
     — Loose coupling
     — Network addressable resources
     — Ubiquitous connectivity
   • The value of SOA
   • Elements of SOA
   • How Web Services fits into SOA
   • SOA advantages and risks

2. Introduction to Web Services
   • Web Services defined
   • How Web Services enhances SOA
   • Fundamental Web Services technologies:
     — XML
     — SOAP
     — WSDL
     — UDDI
   • How Web Services works
   • Lab: Experiencing Web Services through role playing

3. A Service Oriented Approach to Architecture
   • SOA principles and practices
   • SOA multifaceted views
     — Process View
     — Contract View
     — Logical View
     — Deployment View

4. Service Oriented Architecture Activities
   • Enterprise-wide architectural activities
   • Project-wide architectural activities
   • Business focus
   • Requirements focus
     — Functional
     — Non-functional
     — Contracts
   • Design focus
   • Testing focus
   • Development team skills

5. SOA and Web Services
   • Myths and realities
   • Summary
   • Lab: Transform your legacy system into services using what was learned.