

REST

Total Duration

3 days

Audience:

This workshop is intended for Application developers who know basics of SOAP web services and want to work with REST based services and understand consumer coding for REST services.

Course Objectives:

After completing this workshop the participants will be able to

- Understand REST as architecture style
- Understand how to develop REST services in Java
- Write consumer for REST based services

Pre-requisites:

- Basic knowledge of XML and Schema
- Knowledge of web server deployment

Green color indicates practical assignments.

Course Contents:

❖ Recap (Less than 2 hrs)

- Understanding SOA
- Understanding SOAP based Services
- **Simple Provider and Consumer with SOAP**

❖ REST Architecture

- What are REST Services
- Hypertext Transfer Protocol
- Why and When to use REST Service
- REST versus SOAP Services

❖ REST Basics

- Resources
- Uniform Resource Locators
- HTTP Methods
- HTTP Status Codes

❖ Resource Formats

- MIME Types
- Accept Header & Content Negotiation
- Building Simple Application with JaxRS specification (Jersey Implementation)
- Testing Web Service using SOAP-UI
- Writing Consumer using JAX-RS (Java)
- Looking at C and C# consumers

❖ Documenting Services

- WSDL -> WADL
- Documenting a REST API with Swagger and Spring MVC
- Writing consumer using WADL2Java (CXF)
- Writing dynamic consumer by parsing Swagger file

❖ Securing REST Services

- HTTP Security
- SSL/TLS
- Basic Authentication
- Forms Authentication
- Integrated Authentication

❖ Scalability

- Filtering Data
- HTTP Caching

❖ Unit Testing Jersey Restful Services

- Writing Test cases using SOAP-UI
- Working with Mock Testing

Hardware & Software Requirements**Trainer Machine**

- NA

Participants Machine

- TextPad
- JDK 1.7
- Tomcat 7.x
- Jax-WS 2.2
- SoapUI 4.6
- Eclipse Kepler (Java EE Version)
- Jersey 1.17
- CXF 2.2.7