

1) Day-1

a) Introduction to Integration

- i) What is Application integration?
- ii) Types of integration
- iii) Enterprise Application Integration – An introduction
- iv) EAI Architecture
- v) What is SOA
- vi) What is Enterprise Service Bus
- vii) ESB Architecture
- viii) Role of ESB in SOA
- ix) Comparisons of ESB

b) Introduction to JBOSS Fuse

- i) Installing JBoss Fuse (Standalone mode)
- ii) Discovering and Provisioning JBoss Fuse
- iii) Advanced OSGi Topics
- iv) Developing with JBoss Fuse
- v) JBoss Fuse Application Bundles: OSGi Made More Simple

c) Lab Exercise -1

2) Day-2

a) Camel routing

- i) Introduction to Camel
- ii) Using DSL to configure flow
- iii) Exposing different Endpoints
- iv) Routing logic implementation
- v) Data Transformation logic implementation
 - (1) Xml transformation
 - (2) Csv transformation
- vi) Writing Custom Transformer
- vii) Using beans through spring injection
- viii) Implement of SEDA in Apache Camel for better throughput
- ix) Logging and Exception Handling
- x) Developing Integration Solutions with Camel
- xi) Developing Custom Camel Components
- xii) Unit Testing Camel Applications

b) Error Handling

c) Exposing Web services, File and JMS endpoints using Apache Camel

- i) Processing of files
- ii) Configuration of Apache active MQ
- iii) Message processing
- iv) Hosting a restful web service in apache camel
- v) Hosting SOAP based service in apache camel
- vi) Configuring JMS endpoint

d) Lab Exercise-2

3) Day-3

a) Web services Security, Enterprise Integration Patterns Integration using Apache Camel

- i) Webservice Security an Introduction
- ii) Configuring security
- iii) **Enterprise Integration Patterns**
- iv) **Enterprise Integration Patterns Implementation in Apache Came**
 - (a) Pipes & Filter
 - (b) Message Router
 - (c) Content based Routing
 - (d) Splitter and Aggregator
 - (e) Polling Consumer
 - (f) Wire Trap
 - (g) Transformer etc.

Note: The implementation of EIP patterns will cover most of the concepts in Apache Camel

b) Lab Exercise-3

4) Day-4

a) Fuse fabric deployment model

- i) High availability with Fuse architecture in fabric environment.
- ii) Deployment of Fuse in the fabric architecture with multiple instances
- iii) Load balancing and failover configurations
- iv) Creating fabric environment
- v) Understanding root container and child containers
- vi) Creating profiles and attaching them to containers
- vii) Adding bundles to profile
- viii) Installing the bundles with feature repository
- ix) Automatic deployment with feature repository using maven repository
- x) Avoiding common design and development pitfalls for the multi instance deployment architecture.
- xi) ActiveMq setup on Fabric
- xii) Zookeeper introduction.

b) Lab Exercise -4

A Live project (Based on Real Time Scenario)