

□

Developing Applications for IBM Business Process Manager Advanced V7.5 - II
Information

Length: 5.0 Days
Ref: WB752G
Delivery method: Classroom Instructor Led
Online
Price: EUR

Overview

An updated version of this course is available. For more information, click [Developing Applications in IBM Business Process Manager Advanced V8 - II \(WB852G\)](#).

This course teaches students how to use IBM Business Process Manager Advanced V7.5 to build and deploy process integration solutions.

This course is a continuation of *Developing Applications for IBM Business Process Manager Advanced V7.5 - I (WB751G)*. In that course, students learn the basics of the service-oriented architecture (SOA) approach to business process management and build an end-to-end process integration solution. In this course, students extend the functionality of that solution to accommodate additional process integration scenarios.

Through instructor-led presentations and hands-on lab exercises, students learn about the Service Component Architecture (SCA) programming model and runtime environment, XML (business object) support, Business Process Execution Language (BPEL) handlers, business state machines, and SCA transactions. Students also learn about business process dynamicity and flexibility, relationships, and mediation primitives. Other topics include creating versions of SCA components, test environment capabilities, and approaches to securing SCA applications. Students use the IBM Process Center repository to add process model artifacts in a complete and integrated development solution.

In the intensive hands-on lab exercises, students design, develop, and test comprehensive process integration solutions. Students use IBM Integration Designer to create solutions by using the Service Component Architecture (SCA) programming model, the Service Data Object (SDO) data model, and the mediation flow programming model. Students deploy these solutions to the IBM Process Server runtime environment, maintain them in the IBM Process Center repository, and test them in the IBM Integration Designer integrated test environment.

The course also introduces students to iterative (model-driven) application development by using the tools of IBM Business Process Manager. In a hands-on lab exercise, students learn how to develop a process diagram in IBM Process Designer, store it in the IBM Process Center repository, and associate it with

modules and libraries in IBM Integration Designer.

The lab environment for this course uses the Windows XP Professional Service Pack 3 platform.

For information about other related courses, visit the IBM Training website:

<http://www.ibm.com/training>

Public

This intermediate course is for technical developers and other technical development specialists.

Prerequisites

Before taking this course, you should successfully complete *Developing Applications for IBM Business Process Manager Advanced V7.5 - I (WB751G)*. You should also have:

- Basic Java **and** Java 2 Platform, Enterprise Edition (Java EE) skills
- Experience with, **or** prior education on, WebSphere Application Server, **or** experience with Rational Application Developer
- Basic Extensible Markup Language (XML) skills

Objective

- Describe the service-oriented architecture approach to business process management
- Create and modify an application by using iterative (model-driven) development
- Develop a business process diagram in IBM Process Designer
- Work with a process application snapshot in IBM Integration Designer
- Associate IBM Integration Designer artifacts with a process application snapshot
- Use artifacts from an IBM Integration Designer library in a business process diagram
- Implement and deploy SCA modules and libraries that contain version information
- Use the serviceDeploy tool to install versioned modules in an IBM Process Server profile
- Enable cross-component trace to follow the invocation sequences between SCA applications in order to diagnose and repair an application failure
- Implement the event sequencing quality of service qualifier in an application
- Implement a WebSphere MQ import in an application
- Implement a fault handler and compensation handler in a business process
- Examine and test a business state machine
- Examine the transaction propagation settings and transaction quality of service qualifier settings for an application
- Implement a selector component and dynamically navigate a business process instance at run time
- Implement a static (lookup) relationship
- Create a service aggregation mediation flow by using several prebuilt mediation primitives
- Create a reusable mediation subflow

- Build a mediation flow that contains error handling primitives
- Examine an Industry Content Pack and use the business object compare utility
- Configure security quality of service qualifiers and implement role-based security for human tasks and business processes
- Configure IBM Business Process Manager Advanced tools for integration with other applications, such as IBM Case Manager and IBM Business Monitor

Topics

- Course introduction
- Business process management and service-oriented architecture
- Exercise: Using iterative development to create applications
- Version control and testing of SCA applications
- Exercise: Version control for SCA applications
- SCA bindings, the SCA runtime environment, and SCA quality of service qualifiers
- Exercise: Working with SCA bindings and qualifiers
- WS-BPEL fault handlers
- Exercise: Applying a fault handler to WS-BPEL
- WS-BPEL compensation and event handlers
- Exercise: Applying a compensation handler to WS-BPEL
- Business state machines
- Exercise: Working with business state machines
- Transactional behavior of SCA applications
- Exercise: Defining transactional behavior in SCA applications
- Business process flexibility
- Exercise: Creating flexible business processes
- Relationships
- Exercise: Working with static relationships
- Mediation primitives
- Exercise: Implementing a mediation flow
- Mediation flow control
- Exercise: Writing a generic error handler for WebSphere Enterprise Service Bus
- Industry Content Packs
- Exercise: Working with industry schemas and business objects
- Security
- Exercise: Implementing security
- Integrating with IBM Business Process Manager
- Exercise: Integrating other applications with IBM Integration Designer
- Course summary