

Process Implementing with IBM Business Process Manager Standard V8.5.7 - II

WB824 (Classroom)

ZB824 (Self-paced)

Course description

This course teaches methods for designing and building complex process application solutions with IBM Business Process Manager.

IBM Business Process Manager is a comprehensive BPM product that provides the visibility and insight that is necessary to effectively manage organizational business processes. This course focuses on the Standard and Express editions of IBM Business Process Manager, but the lessons apply to process implementation on every version of IBM Business Process Manager, including the Advanced edition.

The course begins by exploring the various configurations and the typical topology considerations for IBM Business Process Manager. It then covers the advantages and disadvantages of the coach designer and a headless implementation. The course describes system integration with IBM Business Process Manager through the REST API, and how to integrate disparate systems and data sources through inbound and outbound integrations.

The course also covers Enterprise Content Management (ECM) integration and document events that affect process flow, and challenges you to implement numerous complex real-world implementation scenarios. The scenarios include advanced routing, a cancellation pattern, a multi-instance loop, and the “four eyes” policy. Good practices and proper project governance principles are enforced throughout the course.

Hands-on exercises throughout the course give you the opportunity to develop a process application that enhances the function, usability, performance, and maintainability of a business process.

The lab environment for this course uses the Windows operating system.

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

http://www.ibm.com/training

General information

Delivery method

Classroom or self-paced virtual classroom (SPVC)

Course level

ERC 2.0

Product and version

IBM Business Process Manager Advanced, Standard, or Express version 8.5.7

Audience

This course is designed for process application developers with experience in implementing IBM Business Process Manager, or other project team members who design, architect, and build complex process applications.

Learning objectives

After completing this course, you should be able to:

* Describe IBM Business Process Manager topology considerations and typical system configurations
* Use the REST API tester to integrate with external systems
* Integrate with a Content Management Interoperability Services (CMIS) system and use content events in a process
* Translate a coach into numerous languages through localization
* Design an IBM Business Process Manager data architecture for a process application with complex business data
* Model all decision authority for a process and employ complex logic for task routing and assignments
* Construct complex task and process task-to-task interaction controls
* Identify and solve common integration issues

Prerequisites

Before taking this course, you should:

* Successfully complete course WB823 or ZB823, *Process Implementing with IBM Business Process Manager Standard V8.5.7 - I*
* Build and deploy at least one IBM Business Process Manager process application release into production

Duration

3 days

Skill level

Intermediate

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| Classroom (ILT) setup requirements | |
| Processor | Intel Core i7-3630QM processor or faster |
| GB RAM | 12 |
| GB free disk space | 120 |
| Network requirements | Internet |
| Other requirements | None |

Notes

The following unit and exercise durations are estimates, and might not reflect every class experience. If the course is customized or abbreviated, the duration of unchanged units will probably increase.

This course is an update of the following previous course:

* WB820/ZB820, *Process Implementing with IBM Business Process Manager Standard/Adv V8.5.6 - II*

Course agenda

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| Course introduction  Duration: 15 minutes |

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| Unit 1. Advanced architecture and topology  Duration: 1 hour and 30 minutes | |
| Overview | This unit provides an overview of the available IBM Business Process Manager configurations. It describes the topology considerations and how they affect the process implementation effort. It also covers the Process Federation Server and its use inside the topology. Finally, the unit describes deployment governance. |
| Learning objectives | After completing this unit, you should be able to:   * Describe IBM Business Process Manager configurations * Describe IBM Business Process Manager topology considerations * Explain the purpose and basic function of the Process Federation Server * Describe deployment governance |

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| Unit 2. External activities and use of the REST API  Duration: 1 hour and 30 minutes | |
| Overview | This unit describes the advantages and disadvantages of coach development, and explains the advantages of headless implementations. You also learn about services that use the REST API. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the advantages and disadvantages of a headless implementation * Follow an activity focused UI * Adopt a skill driven coach view taxonomy * Use the REST API in IBM Business Process Manager |

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| Exercise 1. Exploring the REST API  Duration: 1 hour | |
| Overview | In this exercise, you create an unstructured ad hoc activity and use the REST API to move a token from a failed instance. |
| Learning objectives | After completing this exercise, you should be able to:   * Examine a failed instance in Process Inspector * Restart a failed instance and complete the process * Explore REST APIs by using the REST API Tester |

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| Unit 3. CMIS integration  Duration: 1 hour and 30 minutes | |
| Overview | This unit explores the Content Management Interoperability Services (CMIS) capabilities in IBM Business Process Manager. |
| Learning objectives | After completing this unit, you should be able to:   * Use a CMIS system with IBM Business Process Manager * Create content events in a process |

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| Exercise 2. Handling content events in a process  Duration: 1 hour | |
| Overview | In this exercise, you learn how to use the CMIS capabilities in IBM Business Process Manager. |
| Learning objectives | After completing this exercise, you should be able to:   * Define ECM folders * Implement content events on a process |

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| Unit 4. Adding localization  Duration: 1 hour and 30 minutes | |
| Overview | This unit explores how to add localization to a coach. |
| Learning objectives | After completing this unit, you should be able to:   * Add localization to a coach |

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| Exercise 3. Localizing a coach  Duration: 1 hour | |
| Overview | In this exercise, you create a localization bundle and add the keys to the localization. These localization keys expand the coach to include language options. |
| Learning objectives | After completing this exercise, you should be able to:   * Create a localization resource * Implement the localization on a coach * Test the localization |

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| Unit 5. Designing complex process applications  Duration: 1 hour and 30 minutes | |
| Overview | A business object model (BOM) represents the business artifacts in a process that also account for the data elements that a developer typically uses. When the BOM is identified, developers use appropriate methods to implement the data elements. This unit covers the BOM and optimal business objects that are used as the data architecture for the complex needs of a process. |
| Learning objectives | After completing this unit, you should be able to:   * List the steps for designing a process data model * Determine how process visibility is implemented * Determine where process data is stored * Design an architecture for optimal data transfer into and out of the process * Explain how to implement optimal business objects in a process |

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| Unit 6. Advanced routing  Duration: 1 hour and 30 minutes | |
| Overview | This unit covers routing tasks to process participants by using the advanced routing capabilities in IBM Business Process Manager. It focuses on routing by using a team filter service and dynamically generated teams. |
| Learning objectives | After completing this unit, you should be able to:   * Explain user distribution in a process application * Determine the best source for team data * Model decision authority for a process * Determine when to implement various types of routing * Create a routing design by using a team filter service |

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| Exercise 4. Implementing the "four eyes" policy  Duration: 1 hour | |
| Overview | In this exercise, you learn how to implement a “four eyes” policy in a process by using a team filter. |
| Learning objectives | After completing this exercise, you should be able to:   * Implement the "four eyes" policy by using a team filter |

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| Unit 7. Managing complex tasks and process interactions  Duration: 1 hour and 30 minutes | |
| Overview | Process application interactions depend on comprehensive solutions to function correctly. Without the correct approach to implementing complex tasks and interactions, the business process becomes inefficient. This unit covers the methods that developers use to build effective complex tasks and interactions. |
| Learning objectives | After completing this unit, you should be able to:   * Manage parallel activity execution * Implement a parallel task approval within a single process instance * Manage messaging between processes * Determine how to access data that is shared across multiple process activities * Cancel a process at any time |

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| Exercise 5. Building a cancellation pattern  Duration: 1 hour | |
| Overview | In this exercise, you learn how to implement a cancellation pattern. |
| Learning objectives | After completing this exercise, you should be able to:   * Implement an undercover agent (UCA) to cancel the hiring request * Implement a cancellation pattern in a process application |

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| Unit 8. Implementing a multi-instance loop  Duration: 1 hour and 30 minutes | |
| Overview | In many cases, developers must create a variable number of tasks of a single activity based on business data. This unit covers the creation of a multi-instance loop on an activity based on the data that is only available at run time, and the special conditions that are required to effectively implement this solution. |
| Learning objectives | After completing this unit, you should be able to:   * Determine when to use a multi-instance loop * Implement multi-instance loops in IBM Business Process Manager * Implement complex end conditions in a multi-instance loop |

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| Exercise 6. Implementing a multi-instance loop  Duration: 1 hour | |
| Overview | Multi-instance loops in IBM Business Process Manager allow process applications to have multiple tasks that must be completed to move to the next activity. This exercise teaches you how to manage multi-instance loops to function properly. |
| Learning objectives | After completing this exercise, you should be able to:   * Set up the inputs and outputs to a multi-instance loop * Determine the behavior and start quantity of a multi-instance loop * Apply the correct exit criteria for a multi-instance loop |

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| Unit 9. Integrating with external systems  Duration: 1 hour and 30 minutes | |
| Overview | Integrations with external systems are accomplished through integration services in IBM Business Process Manager. This unit covers the integration services that are used to connect to other systems for increased effectiveness of the business process application. |
| Learning objectives | After completing this unit, you should be able to:   * Explain how to build integration services in IBM Business Process Manager * Describe the outbound web service integrations and the most common issues that generate connection complexities * Employ the System Data toolkit Integration Services when other solutions for external system connection are needed * Create an inbound web service integration * Create an event-based undercover agent |

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| Exercise 7. Building web service connections  Duration: 1 hour | |
| Overview | In this exercise, you learn how to build inbound and outbound web service connections. |
| Learning objectives | After completing this exercise, you should be able to:   * Create an event-based undercover agent * Build an inbound web service connection * Build an outbound web service to message the inbound web service |

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| Unit 10. Course summary  Duration: 30 minutes | |
| Overview | This unit summarizes the course and provides information for future study. |
| Learning objectives | After completing this unit, you should be able to:   * Explain how the course met its learning objectives * Access the IBM Training website * Identify other IBM Training courses that are related to this topic * Locate appropriate resources for further study |

For more information

To learn more about this course and other related offerings, and to schedule training, see **ibm.com**/training

To learn more about validating your technical skills with IBM certification, see **ibm.com**/certify

To stay informed about IBM training, see the following sites:

IBM Training News: ibm.com/training/blog

YouTube: youtube.com/IBMTraining

Facebook: facebook.com/ibmtraining

Twitter: twitter.com/IBMCloudEdu