

Process Implementing with IBM Business Process Manager V8.6 - I

WB827 (Classroom)

ZB827 (Self-paced)

Course description

This course integrates training in business process management (BPM) methods and implementation with IBM Business Process Manager V8.6. You learn core process modeling and implementation skills, the project development approach, process model implementation fundamentals, and exceptional delivery patterns. These skills improve the speed and quality of process definition and implementation efforts.

IBM Business Process Manager is a comprehensive BPM environment that provides the visibility and insight that is required to effectively manage the business processes of an organization. The course begins with an overview of business process management, emphasizing the concepts of reuse, ease of maintenance, and high-quality development strategies. You create simple ad hoc activities by using the web-based tools, and use the IBM Business Process Manager Process Designer to create a business process definition (process) from business requirements that are identified during process analysis. You learn how to make team collaboration more efficient by enabling all team members to use standard Business Process Model and Notation (BPMN) elements.

The course continues with an overview of the architecture of IBM Business Process Manager, and describes the use of process applications and toolkits within the tool. You create business objects and variables, implement gateways, and demonstrate process flow on your diagrams. You build customized user interfaces (coaches) to enable business and process data flows throughout the process model.

The course uses an interactive learning environment, with hands-on demonstrations and class activities to reinforce concepts and check understanding. Lab exercises throughout the course provide hands-on experience with BPM tasks and skills. This course is intended to be collaborative, and you can work in teams to complete class activities.

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

**ibm.com**/training

General information

Delivery method

Classroom or self-paced virtual classroom (SPVC)

Course level

ERC 1.1

Product and version

IBM Business Process Manager Standard V8.6

Audience

This course is designed for project members who design and implement detailed logic, data models, and external system integrations for an executable business process definition. These roles include process owners, BPM analysts, BPM authors, BPM developers, BPM administrators, and BPM project managers.

Learning objectives

After completing this course, you should be able to:

* Describe why process modeling is an important phase in the BPM lifecycle
* Create ad hoc activities by using the Process Designer
* Identify how to use Process Designer to create a process application
* List and identify the core elements that are used to create a process in the Process Designer
* Translate workflow steps into business process activities and nested processes
* Use gateways to control the process flow
* Validate that the process model meets Playback 0 goals and requirements
* Identify how intermediate events are used during the execution of a business process
* Describe the architecture of IBM Business Process Manager
* Organize process assets into toolkits
* Manage variables and data flow
* Implement timer events
* Implement gateways and routing to control process flow
* Build a business data model
* Build services and user input forms (coaches)
* Create a snapshot for deployment
* Create a decision service
* Model and implement message events
* Apply asset tags to organize artifacts
* Enhance coaches for a rich user experience and apply themes
* Implement effective error handling in processes and services

Prerequisites

Before taking this course, you should have:

* Practical knowledge of data structures
* Understanding of SQL syntax and JavaScript
* Basic understanding of web services
* Experience with modern programming techniques

Duration

5 days

Skill level

Basic

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| Classroom (ILT) setup requirements | |
| Processor | Intel Core i7-3630QM processor |
| GB RAM | 12.0 |
| GB free disk space | 120 |
| Network requirements | LAN / 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 course WB823, *Process Implementing with IBM Business Process Manager Standard V8.5.7 - I*.

Course agenda

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| Course introduction  Duration: 15 minutes |

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| Unit 1. Introduction to business process management  Duration: 1 hour and 30 minutes | |
| Overview | This unit explains the foundational concepts that establish the importance of process modeling. It includes a review of business process management, the business process management lifecycle, the basics of process modeling, and business process management project development. It introduces a case-study scenario that begins the in-class development of a business process definition that is based on the business requirements that are established within the process analysis - Playback zero phase of the project. |
| Learning objectives | After completing this unit, you should be able to:   * Define business process management (BPM) * List and describe the phases in the BPM lifecycle procedure * Define process modeling * Describe Playback 0 and the achievements that are reached during this stage of project development |

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| Unit 2. Introduction to IBM Business Process Manager and integration with other tools  Duration: 1 hour and 30 minutes | |
| Overview | This unit is an overview of IBM Business Process Manager and integration with other tools. It focuses on how to create a process application in the Process Center, provides a look at the Designer and Inspector views of the IBM Process Designer, and introduces the Process Portal. |
| Learning objectives | After completing this unit, you should be able to:   * Describe how to use IBM Business Process Manager to accomplish process modeling goals * Explain how to create and modify process applications in the Process Center * Explain how to create and modify process models with the Designer view of the IBM Process Designer * Describe how to validate process models with the Inspector view of the IBM Process Designer * Describe the purpose of the Process Portal * Describe the purpose and function of Blueworks Live * Describe the integration with other tools and products |

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| Unit 3. Playback 0: Modeling the as-is business process  Duration: 1 hour and 30 minutes | |
| Overview | In this unit, you learn how to create a structured process application, which might include ad hoc activities. Creating the process model is part of the effort within Playback 0. |
| Learning objectives | After completing this unit, you should be able to:   * Create a process application * Model a process * Describe pools and lanes |

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| Exercise 1. Playback 0: Creating a process with ad hoc activities  Duration: 1 hour and 30 minutes | |
| Overview | This exercise covers how to create ad hoc activities in IBM BPM Process Designer. |
| Learning objectives | After completing this exercise, you should be able to:   * Start IBM Business Process Manager * Create a process application by using Process Designer * Create the foundation for a structured process by adding the appropriate lanes to the default pool * Create a process * Add ad hoc activities to the team lanes |

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| Unit 4. Playback 0: Modeling the to-be business process  Duration: 2 hours and 30 minutes | |
| Overview | After the process model is created, modeling continues through iterations until the business process reflects the specified improvements and adjustments. To produce the final process model for implementation, the shift from descriptive modeling to analytical modeling is needed. This unit provides an overview of Blueworks Live, which is an IBM tool that is used primarily for modeling and analysis of processes. The unit also covers the core notation elements that are used in the Process Designer, and the categories of activities like processes and nested processes that contain process tasks. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the purpose and function of Blueworks Live * List and describe the core notation elements that are used in the IBM Process Designer * Examine a defined workflow from detailed process requirements and identify the interrelated process activities and the roles that are responsible for completing them * Decompose activities into processes and nested processes that contain process tasks * Create a process, nested process tasks, and responsible roles |

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| Exercise 2. Playback 0: Creating a structured process  Duration: 1 hour and 30 minutes | |
| Overview | This exercise covers how to create a process application and business process definition (process) in the Process Center, and model teams for the process. It also covers how to model task-type activities, create a linked process, and decompose a process into nested processes. |
| Learning objectives | After completing this exercise, you should be able to:   * Create a nested process * Create the foundation for a process by adding the appropriate lanes to the default pool * Translate business process workflow steps that are documented in the process discovery and analysis into process model tasks * Model the expected process flow for the initial process model * Decompose business process workflow steps that are documented in the process discovery and analysis into process model tasks * Create a subprocess or a linked process |

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| Unit 5. Playback 0: Controlling process flow  Duration: 1 hour and 30 minutes | |
| Overview | This unit covers the modeling of process flow, sequence flow, tokens, gateways, and intermediate events. |
| Learning objectives | After completing this unit, you should be able to:   * Describe process sequence flow and the runtime use of process tokens * List and describe gateways as they are used in the IBM Process Designer * Explain how to evaluate conditions for a process gateway * Model gateways in a process * List and describe intermediate event types that are used in the IBM Process Designer * Model a business process escalation path with an attached timer intermediate event |

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| Exercise 3. Playback 0: Controlling process flow  Duration: 1 hour and 30 minutes | |
| Overview | This exercise covers how to create gateways in a business process definition, and how to create timer intermediate events. |
| Learning objectives | After completing this exercise, you should be able to:   * Add gateways to a process * Model the appropriate sequence flows for each gateway * Add a timer intermediate event to a process based on business requirements * Model an escalation path in a process with IBM Process Designer * Document details for the implementation team |

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| Unit 6. Playback 0: Building consensus  Duration: 1 hour | |
| Overview | A validation is accomplished through a review session with all business stakeholders, business users, and the BPM development team. This unit describes the Playback 0 validation goals and requirements, explains how to validate that a process model meets the goals and requirements, and describes how to reach consensus on the process model. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the Playback 0 validation goals and requirements * Validate that a process model meets Playback 0 goals and requirements |

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| Exercise 4. Validating the process model  Duration: 15 minutes | |
| Overview | This exercise covers how to validate the business process. |
| Learning objectives | After completing this exercise, you should be able to:   * Validate that the business process reflects the intended requirements * Implement the requirements with Playback feedback and new process requirements as input |

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| Unit 7. IBM Business Process Manager architecture  Duration: 2 hours | |
| Overview | IBM Business Process Manager is a comprehensive and consumable business process management environment that provides visibility and management of your business processes. It includes tools and a runtime environment for process design, execution, monitoring, and optimization. It is designed to enable process owners and business users to engage directly in the improvement of their business processes. |
| Learning objectives | After completing this unit, you should be able to:   * Describe IBM Business Process Manager product components * Describe the relationship between IBM Process Center and the runtime environments * Identify the integrations with other IBM products |

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| Unit 8. Playback 1: Controlling process flow with business data  Duration: 4 hours | |
| Overview | This unit describes how to manage the variables and data flow. It covers the implementation of the intermediate timer event, gateways, and routing tasks. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the differences between process flow data and business flow data * Add variables to a process * Implement gateways to control process flow * Describe teams and process lanes * Implement routing for tasks * Assign an expert group to an activity * Expose a process application to a team |

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| Exercise 5. Playback 1: Controlling process flow with business data  Duration: 1 hour | |
| Overview | In this exercise, you create assets that are required during Playback 1 controlling the process flow of the process lifecycle. You create variables, implement timer intermediate events, establish routing, and implement exclusive gateways. |
| Learning objectives | After completing this exercise, you should be able to:   * Create simple variables in a process * Implement timer intermediate events in a process * Implement gateways for a process * Implement routing for an activity |

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| Unit 9. Playback 1: Business data, services, and coaches  Duration: 2 hours and 15 minutes | |
| Overview | This unit explains the goal of this Playback: to demonstrate the data flows from one coach to another and from one task to another inside the process. All data is bound on the coaches, and if the same data is shared across multiple tasks, Playback participants can track the data when it moves through the various activities. |
| Learning objectives | After completing this unit, you should be able to:   * Build a business object * Initialize a complex object and a list * Build a service * Use coaches to define and implement guided user interactions * Implement a service for an activity in a process * Map variables between a nested service and an activity in the overlying process * Describe the object methods |

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| Exercise 6. Playback 1: Business data, services, and coaches  Duration: 1 hour 30 minutes | |
| Overview | In this exercise, by using the core requirements, you determine and create all of the necessary assets to support a coach in the Hiring Request Process. You use complex business objects (variable types) to organize your data, and pass data into and out of each diagram if you have nested processes. You build a service and define guided user interactions with a coach. You also implement a service for an activity, and map variables between a nested service and an activity. You model the coach by using the concept of grids. |
| Learning objectives | After completing this exercise, you should be able to:   * Determine and organize data when provided with a written process * Add business objects and object types * Create a client-side human service * Add variables and business objects to a process application * Create and configure a coach to obtain process participant input * Model a coach by using the concept of grids * Add coach controls to control process flow * Create a client-side human service and coach for the General Manager review activity * Implement an activity by attaching a service and mapping data |

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| Unit 10. Playback 1: Enhancing coaches  Duration: 2 hours and 15 minutes | |
| Overview | This unit covers how to build coaches and then enhance them. Coach views are reusable assets that can be shared with multiple coaches or even multiple process applications. The unit covers how to validate the process flow and use toolkits. |
| Learning objectives | After completing this unit, you should be able to:   * Create tabs on a coach * Enhance coaches and apply a theme * Create a coach view * Validate process flow |

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| Exercise 7. Playback 1: User interface design and implementation  Duration: 1 hour | |
| Overview | In this exercise, you use group controls into tabs on a coach and change the appearance of the coach by applying a theme. |
| Learning objectives | After completing this exercise, you should be able to:   * Create tabs on a coach * Change the appearance of a coach by applying a custom theme * Change the coach layout for a mobile format |

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| Exercise 8. Playback 1: Conducting the Playback session  Duration: 1 hour | |
| Overview | This exercise covers how to conduct a Playback of your process. The exercise demonstrates the process, following various paths that flow from the exclusive gateways in the process and demonstrate tasks that are assigned. It also describes the task that is created in the Process Portal inbox, depending on the swimlane and routing settings for an activity. You also create a toolkit to store and share these assets. |
| Learning objectives | After completing this exercise, you should be able to:   * Log on to the Process Portal * Create an instance of a process * Demonstrate that the process follows the various paths modeled * Create a toolkit * Create a dependency on a toolkit |

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| Unit 11. Playback 2: Integrations  Duration: 2 hours | |
| Overview | This unit covers how to create a decision service, implement message events, apply asset tagging, and access and manipulate external data. You learn about exposed process variables (EPVs) and environment variables (ENVs). |
| Learning objectives | After completing this unit, you should be able to:   * Explain how to create a decision service * Create a message start event * Create an enabling service * Describe how to create and configure an undercover agent (UCA) * Describe how to start a process with a message start event * Define the basic function of an integration service * Identify the components of the IBM Business Process Manager integration architecture * Describe how integration components interact with services * Configure and define integration services for outbound integration * Describe the differences between an environment variable and an exposed process variable * Organize assets with favorites, tagging, and smart folders |

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| Exercise 9. Playback 2: Integrations  Duration: 1 hour and 30 minutes | |
| Overview | This exercise covers how to create implementation assets to support Playback 2: integrations. |
| Learning objectives | After completing this exercise, you should be able to:   * Create a decision service * Create and configure a UCA * Start a process with a message start event * Use tagging to organize assets * Query a database to obtain information and populate a list variable * Create environment variables (ENVs) and exposed process variables (EPVs) * Change a text control to a single select control |

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| Unit 12. Playback 3: Hardening processes and services  Duration: 1 hour and 30 minutes | |
| Overview | Playback 3 is the final Playback. The goal of this Playback is to demonstrate what happens when your process encounters an error, and how that error is handled. This unit covers error handling patterns that are used in your process application, conveying general principles for error handling without having to demonstrate every instance. |
| Learning objectives | After completing this unit, you should be able to:   * Catch an error in a process and service |

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| Exercise 10. Playback 3: Creating error handling for a service  Duration: 15 minutes | |
| Overview | This exercise covers how to implement exception handling in a service. |
| Learning objectives | After completing this exercise, you should be able to:   * Harden a service with a catch exception component |

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| Unit 13. Playback 3: Deploying process applications  Duration: 30 minutes | |
| Overview | This unit explains how to create a snapshot for deployment. |
| Learning objectives | After completing this unit, you should be able to:   * Explain how to create a snapshot for deployment |

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| Exercise 11. Playback 3: Creating a snapshot for deployment  Duration: 15 minutes | |
| Overview | This exercise covers how to create a snapshot for deployment. |
| Learning objectives | After completing this exercise, you should be able to:   * Create a snapshot for deployment |

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| Unit 14. 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: http://bit.ly/IBMTrainEN

YouTube: youtube.com/IBMTraining

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Twitter: twitter.com/IBMCloudEdu