

IBM Education Assistant - WebSphere Expert Arena Virtual labs



Welcome to a collection of WebSphere Business Process Management Labs.

The WebSphere Business Process Management suite consists of a set of products that allow modeling, development, deployment and monitoring of an enterprise application. Each of these products are installed separately to allow you to experience the usage as a stand-alone product. There are a set of labs provided for each product in the C:\IBM\labs directory. Most of these labs will be run from within the WebSphere Integration Developer test environment.

Each of these exercises uses its own set of profiles and is independent of the other exercises, so you can choose to complete whichever labs interest you most, or are relevant to your job role, in any order you choose.

This collection of self-paced lab exercises will introduce you several of the major new features of WBPM suite of products. You will have the opportunity to learn about each of the products below. Each lab provides complete instructions for the environment and execution of the exercise.

Links to Labs	Description
WebSphere Enterprise Service Bus	<p>A series of four lab exercises are provided that are intended to illustrate elements of the mediation programming model, addressing these capabilities:</p> <ul style="list-style-type: none"> · Using a service invoke primitive in a flow · Augmenting message content with the results of a service invoke · Using message splitting and aggregation for message augmentation of repeating elements · Service call retry of failing service invocations · Using alternate endpoints for service call retry <p>In order to get the an appropriate understanding of the concepts illustrated in these labs, it is important to familiarize yourself with them as described in the presentation entitled Augmentation, aggregation and retry labs. Each of the labs builds on the previous one and therefore it is beneficial to do them in order. However, the appropriate artifacts and instructions are provided that allow you to do any one lab individually.</p>
Lab one - Message Augmentation	<p>The key illustration of this lab is the use of the service invoke primitive for message augmentation, the adding of additional data to the message. This requires use of the XSL transformation primitive and the transient context.</p> <p>Estimated completion time: 30-60 minutes</p>
Lab two - Message	<p>This lab illustrates the use of the fan out and fan in primitives for splitting an array of elements so that each element can be augmented and then</p>

splitting and aggregating	<p>aggregates the results, producing an array of augmented elements. In addition to the fan out and fan in primitives, the same elements as the augmentation scenario in the previous lab are required. Also needed are the use of the fan out context containing the array element for each iteration, use of the shared context for aggregating the results and the use of a message element setter primitive with the append option for building up the array.</p> <p>Estimated completion time: 45-90 minutes</p>
lab three - Fault recovery and service call retry	<p>The purpose of this lab is to illustrate how to recover from a fault returned to the flow by the service invoke primitive. This allows the full array to be processed regardless of an individual fault returned from the inventory service for one element. The second part of this lab then illustrated how the service invoke primitive can be configured to automatically to retry the invocation when a fault is returned. This reduces the possibility that a fault is actually returned to the mediation flow.</p> <p>Estimated completion time: 30-60 minutes</p>
Lab four - Retry Alternate endpoints	<p>Finally, this lab provides you with an understanding of how automated service call retry capabilities can use alternate endpoints when retrying a call. This is a useful capability when there are multiple instances of the same service available for use.</p> <p>Estimated completion time: 30-60 minutes</p>
WebSphere Process Server	
Parallel routing	<p>This lab shows how inline human tasks and inline parallel routing task work using WebSphere Integration Developer V7.0. The lab also discusses result aggregation and completion conditions.</p> <p>Estimated completion time: 60 – 90 minutes</p>
Process instance migration	<p>This lab shows you how to migrate a business process template using WebSphere Integration Developer V7.0, deploy the new business process template version to the process server, and then migrate live process instances from the older business process template version to the new business process template version at run time using the Business Process Choreographer Explorer. In this lab you will build, deploy, and manage migration of in-flight business process instances. The beginning will cover background information in presentation form to level set this new enhancement. You will then build your new process version in WebSphere Integration Developer to see differences and make improvements to the process. Once satisfied with the changes, you will deploy the new version of the business process and use the BPC explorer and Business Space to manage the migration of an in-flight process to your new version. The take-away from this lab will be the hands-on realization of improved business process agility and dynamicity in WebSphere Process Server version 7.</p>

	Estimated completion time: 60 – 90 minutes
Modeler	
Business rules	<p>The objective of this lab is to provide you with an understanding of the new feature in WebSphere Business Modeler V7.0.0.2 for modeling business rules, which can then be implemented in WebSphere Integration Developer V7.0.0.2</p> <p>Estimated completion time: 90 – 120 minutes</p>
Modeling human tasks	<p>The objective of this lab is to provide you with an understanding of the new feature in WebSphere Business Modeler V7.0.0.2 for modeling human tasks, which can then be implemented in WebSphere Integration Developer V7.0.0.2</p> <p>Estimated completion time: 60 – 90 minutes</p>
Model synchronization	<p>The objective of this lab is to provide the student with a simple and easy to understand introduction to the features in WebSphere Business Modeler V7.0.0.2 and WebSphere Integration Developer V7.0.0.2 for keeping the business model and the implementation model synchronized when using iterative development processes.</p> <p>Estimated completion time: 60 – 90 minutes</p>
Monitor	
Business space dashboards	<p>The objective of this lab is to show you how to use WebSphere Business Monitor dashboards in business space.</p> <p>Estimated completion time: 30 – 60 minutes</p>
KPI history and prediction	<p>The objective of this lab is to show you how to use the KPI history and prediction widget. Since the KPI history service runs once per hour, it could take some time to build up enough history records for testing the widget. In this lab, you will preload the database with history records, then use the widget to view those records. You will create a KPI prediction model using the KPI Manager widget, then view the prediction data. Also, you will configure a business user alert using the Alert Manager widget, and the alert will be based on data that exceeds a threshold which is defined on the prediction model.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Script adapter	<p>The objective of this lab is to show you how to use the script adapter widget in the dashboard to link the instances widget with the Google gadget widget. This lab will provide solutions that you can import into WebSphere Integration Developer, so then you can concentrate on using the script adapter in the dashboards.</p> <p>Estimated completion time: 30 – 60 minutes</p>
User defined functions lab	<p>The objective of this lab is to show you how to use user defined functions in the monitor model. You will review the Java project that contains the user defined functions. You will edit the monitor model and add</p>

	<p>expressions which reference the user defined functions. You will also use the instances view to see the results in the dashboard.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Visual model	<p>The objective of this lab is to show you how to use SVG diagrams in the monitor visual model. You will see how to edit the visual model for the KPI context diagram and the monitoring context diagram. And you will use the diagram widget in the business space dashboard to see the results of the visual actions. You will also use the instances widget and wire it to the diagrams widget so you can click an instance and see the diagram for that particular instance.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Business process monitoring	<p>The objective of this lab is to show you how to monitor a business process which was developed in WebSphere Business Modeler, implemented in WebSphere Integration Developer and deployed to WebSphere Process Server. This lab will provide solutions that you can import into Modeler and WebSphere Integration Developer, so then you can concentrate on building the monitor model, deploying it, running tests and viewing monitored data in the dashboards.</p> <p>Estimated completion time: 90 – 120 minutes</p>
Clips and Tacks business activity monitoring using XSD style events	<p>The objective of this lab is to show you how to build a monitor model using XSD event definitions in Rational Application Developer or WebSphere Integration Developer, deploy it to WebSphere Business Monitor and then view your monitored data on the Monitor dashboards. This lab will show you business activity monitoring (BAM) which involves event based monitoring. With BAM, your monitored application can run anywhere, and submit events to the Monitor server so that you can view monitored data in the dashboard. Typically, you identify the events that will be created by the application, and then create a monitor model that represents the monitored data that you want to collect from the events.</p> <p>Estimated completion time: 120 – 150 minutes</p>
WebSphere Adapters	
Flat file	
Flat file inbound	<p>The objective of this lab is to provide you with an understanding of WebSphere Adapter for Flat Files and inbound event processing. In this lab you will deploy the WebSphere Adapter for Flat Files, using WebSphere Integration Developer, and integrate it with an SCA application that polls for inbound events and processes those inbound requests from the file system.</p> <p>Estimated completion time: 30 – 60 minutes</p>

Flat file outbound	<p>The objective of this lab is to provide you with an understanding of the IBM WebSphere Adapter for Flat Files and outbound processing. In this lab you will deploy the WebSphere Adapter for Flat Files, using WebSphere Integration Developer, and integrate it with an SCA application that processes outbound requests to the file system.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Processing COBOL copybook files	<p>The objective of this lab is to provide you with an understanding of how to use the 'external data' wizard in WebSphere Integration Developer to generate business object definitions from a COBOL program source file. Then, the lab guides you through the configuration of inbound and outbound processing using these business object definitions to process COBOL copybook files.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Multiple endpoints	<p>The objective of this lab is to provide you with an understanding of how to configure WebSphere Adapters for Flat File V7.0 to send events to multiple endpoints using only one module.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Log and confidential trace	<p>The objective of this lab is to provide you with an understanding of some of new features in WebSphere Adapter for Flat Files V7.0 – usage of Adapter ID for logging and tracing details, hide confidential trace, and poll sub directories in event directory.</p> <p>Estimated completion time: 30 – 60 minutes</p>
JDBC	
Inbound wrapper business object	<p>The objective of this lab is to introduce you wrapper business object for inbound processing.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Outbound hierarchy business objects	<p>The objective of this lab is to provide you with an understanding of the WebSphere Adapter for JDBC and outbound request processing.</p> <p>Estimated completion time: 30 – 60 minutes</p>
Outbound user defined SQL	<p>The objective of this lab is to provide you with an understanding of the WebSphere Adapter for JDBC and outbound request processing.</p> <p>Estimated completion time: 30 – 60 minutes</p>

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