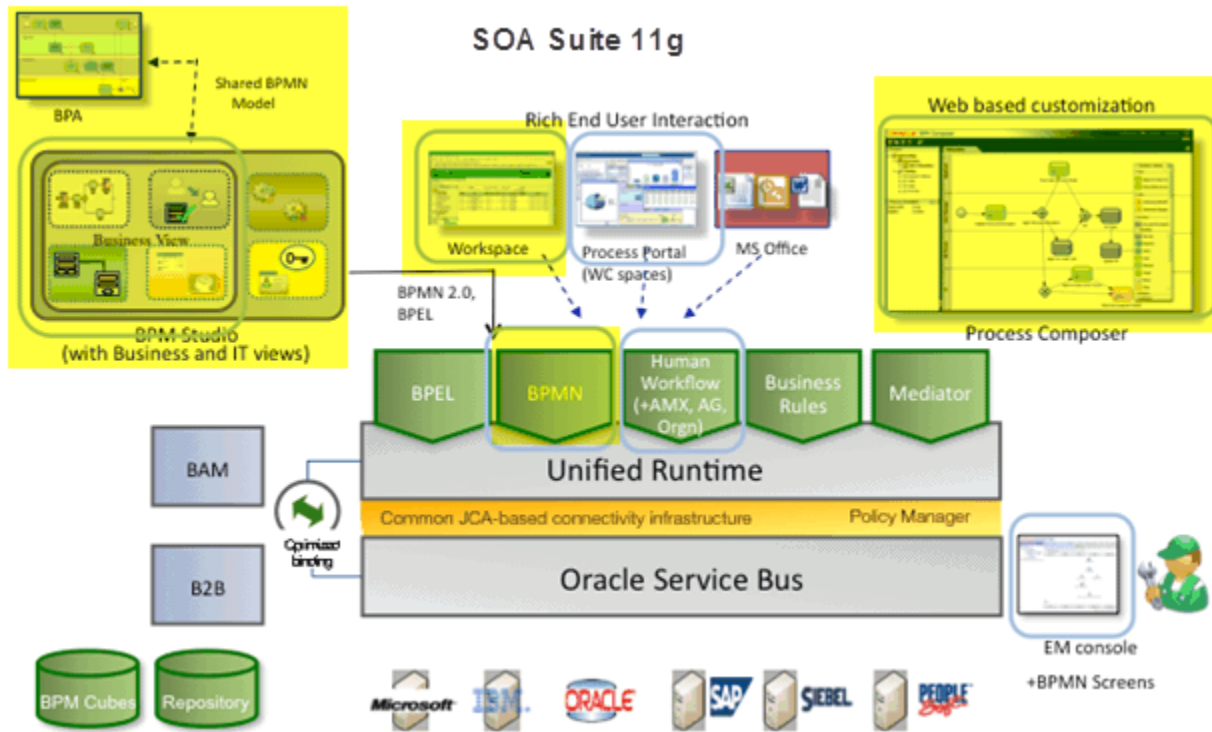


## Oracle BPM 11g: Implement the Process Model



**Duration:** one month

### What you will learn

This course teaches the process developer how to implement a BPM process model. It addresses a more technical audience than the OBPM 11g Modeling course, assuming that the student already understands the basics of process modeling and knows how to use the modeling tools of BPM Studio. Students learn how to define the underlying implementation for process tasks such as user tasks, business rule tasks, and service tasks. They also learn how to manage the flow of information through a business process by mapping data objects into and out of gateways and business rules, and by integrating them into the design of human task forms.

The course also teaches students how to create more complex process models to meet their business needs through the use of different types of events, including message, signal, and timer events. Students will learn to manage synchronous and asynchronous communication between processes and subprocesses, peer processes, and other services. In addition, the course covers exception handling and UI customization. Since OBPM is closely integrated with SOA Suite, students will gain a clear understanding of how OBPM integrates with SOA in both the runtime and the development environment. The student is requested to view the tutorial Building Your First Process with Oracle BPM 11g before attending class.

### Learn To:

- ✚ Define a business rule that can handle many different conditions and criteria
- ✚ Use events to implement messaging and error handling between a process and subprocess, or a process and a peer process
- ✚ Wire service implementations to tasks rendered as modeling elements
- ✚ Customize the BPM Workspace user interface
- ✚ Implement a Business Process Model

- ✦ Define human workflow to provide complex routing of rule-based task approvals

## Audience

Application Developers  
Developer  
SOA Architect

## Required Prerequisites **(one session to go over these)**

Experience creating process models using the Oracle BPM modeling tools (Process Composer and Studio design editor)

Experience with JDeveloper or other Java IDEs

Familiarity and some experience programming with Java or other similar object oriented language

Familiarity with web application and web service architectures and technologies

XML Fundamentals

## Course Objectives

- ✦ Describe and explain the various options available for creating a completely custom user interface for the BPM process
- ✦ Implement a User Task using default BPM human task forms
- ✦ Define data associations using data objects and expressions
- ✦ Create expressions to define conditional branching
- ✦ Create complex business rules using decision tables
- ✦ Define approval flows using the human workflow editor
- ✦ Implement service tasks
- ✦ Create an ADF task flow for more complex user interaction with human tasks
- ✦ Expose a BPMN process as a service
- ✦ Send and receive messages of various types to/from another process, subprocess, or peer process
- ✦ Catch an error message thrown from an external service
- ✦ Use an event subprocess to handle errors at the process level
- ✦ Send a message to a BPEL process from a BPMN process
- ✦ Use a Notification activity to send an email from a process
- ✦ Customize the BPM Workspace by using Flex Field based columns and custom skins

## Course Topics

### 1. Understanding the OBPM Architecture

The Development Lifecycle

Looking at the OBPM Architecture

The Integrated Development Environment Using BPM Studio

### 2. Using Business Objects

Business Objects and Data Objects

Data Objects and their scope

### 3. Creating Human Tasks to Implement Interactive Activities

Human Task Patterns

Basic Default Settings for a Simple Human Task

Creating a Task Form Using "Auto Generate Form"

### 4. Defining Simple and XPath Expressions

Using the Expression Builders to Define Expressions

Defining XSLT Transformations for Data Used in the Process

### 5. Creating Business Rules

Using Decision Tables

Using IF/Then Rules

Testing Business Rules

### 6. Defining Human Workflows

Using the Human Task Editor to Define Dynamic Approval Flows for a Complex User Task

### 7. Implementing Service Tasks in an OBPM Process

Understanding the Different Types of SOA Service Tasks and Service Adapters and How to Use Them

Creating a File Write and File Read Service

Using External Web Services

**8. Overview of Events**

Using the Various Event Types: Start, End, Throw and Catch

Implementing Timer Events

Providing Loosely Coupled Interactions with Signal Events

**9. Controlling Process Flow**

Using Subprocesses

Altering the Process Flow

Interprocess Communication

**10. Handling Exceptions**

Types of Errors

System and Business Events

Handling Errors at the Activity, Subprocess, and Process level

**11. Creating a More Complex User Interface Using ADF**

Creating Task Flows

Defining an ADF Task Page from an ADF Template

Understanding Your options for Customizing the Process UI

**12. User Interface Options**

Customizing the Workspace

Using the BPM API

Process Spaces