

## **IBM WEBSHERE PORTAL 8.0 SOLUTION DEVELOPMENT COURSE CONTENT**

- ❖ **DESCRIPTION: COVERS PORTAL 8 MATERIAL AS IT RELATES TO THESE COMPETENCY AREAS:**
  - ARCHITECTING AN IBM WEBSHERE PORTAL SOLUTION
  - PORTLET DEVELOPMENT
  - ADDITIONAL DEVELOPMENT CONCEPTS
  - PORTAL SERVICES AND API-S
  - TESTING AND DEBUGGING OF PORTLETS
  - IWIDGET DEVELOPMENT
  - THEME DEVELOPMENT
  
- ❖ **ARCHITECTING AN IBM WEBSHERE PORTAL SOLUTION:**
  - a. Demonstrate knowledge of WebSphere Portal platform features
  - b. Identifying scope for custom portlets
  - c. Know the authentication levels provided by WebSphere Portal
  - d. Understand how WebSphere Portal features and portlets use user identity to personalize
  - e. Understand patterns and methods for application integration with WebSphere Portal
  - f. Use out-of-the-box portlets
  - g. Demonstrate knowledge of the iWidget lifecycle
  - h. Understand the use cases for implementing integration with iWidgets versus portlets
  - i. Demonstrate knowledge of theme development lifecycle
  - j. Demonstrate knowledge of mobile theme development lifecycle
  
- ❖ **PORTLET DEVELOPMENT:**
  - a. Create cooperative portlets using live text, Click-2-Action, and event broker
  - b. Demonstrate knowledge of core Java portlet objects in the JSR 286 spec
  - c. Demonstrate the differences between events, render parameters, public render parameters, and scoped attributes
  - d. Describe the portlet life cycle for JSR 286
  - e. Effectively use JSPs to render portlet markup
  - f. Have knowledge of WSRP for JSR-286 portlets
  - g. Identify supported portlet modes and custom portlet modes
  - h. Implement portlet actions and events with Java annotations
  - i. Understand portlet descriptor files for each portlet type and utilize WebSphere Portal Extend features
  - j. Use the portlet client model
  - k. Use Ajax to update state and trigger actions with JSR 286 portlets
  - l. Utilize client profile information (JSR 188)
  - m. Utilize standard portlet cascading style-sheet classes
  
- ❖ **ADDITIONAL DEVELOPMENT CONCEPTS:**
  - a. Developing personalization resources
  - b. Search the Business Solutions catalog
  - c. Using and extending the Credential Vault
  - d. Using Web Content Manager API's
  - e. Writing personalization and visibility rules
  
- ❖ **PORTAL SERVICES AND API's:**
  - a. Creating a custom portlet service
  - b. Use Remember Me API to provide anonymous portlet content personalization
  - c. Understand key Service Programming (SPI) and Application Programming Interfaces (API)
    - 1. Property Broker SPI
    - 2. Login Service SPI

3. Portal User Management SPI (PUMA)
  4. Controller SPI
  5. Portal Access Control SPI
  6. Collaborative Services API
- d. Develop login, logout, and session validation filters

❖ **TESTING AND DEBUGGING OF PORTLETS:**

- a. Effective use of logging
- b. Troubleshoot portlet applications

❖ **iWIDGET DEVELOPMENT:**

- a. Demonstrate understanding of iWidget 2.1 specification concepts
- b. Understand the purpose of objects like iContext, iDescriptor, iScope, constants, iEvents, and item types
- c. Explain how iWidget modes are leveraged in WebSphere Portal
- d. Understand the mechanisms for sharing data and signaling events between iWidgets and Portlets

❖ **THEME DEVELOPMENT:**

- a. Understand theme optimization framework including basic artifacts such as pages and profiles
- b. Understand usage of deferred and non-deferred modules
- c. Demonstrate knowledge of customizing a theme based on modular theme
- d. Demonstrate knowledge of creating and modify dynamic content spots
- e. Understand the artifacts and process needed to customize skins (CSS, entry points, cache expiration)
- f. Demonstrate the steps for contributing new layouts
- g. Demonstrate basic understanding of menu framework
- h. Demonstrate understanding of theme registration and deployment
- i. Demonstrate knowledge of registering and administering modules
- j. Understand how to create modules and use theme contribution types