

Transitioning to Rational Application Developer v7.5 and WebSphere Application Server v7

Course Code: n075

Description:

This course teaches students how to use IBM Rational Application Developer (RAD) v7.5 for Java EE development. It also covers deploying to WebSphere Application Server v7 from a developer’s perspective. The course focus is on teaching students how to use the tool to implement Java EE components, not on the underlying Java EE technology. After completing this course, students will feel comfortable using the RAD v7.5 integrated development environment tools to develop applications utilizing JSP, JSF, servlets, JavaBeans, EJBs and Web services. The concepts taught in this course are reinforced by hands-on lab exercises.

Prerequisites:

Java programming experience, server-side development experience and familiarity with HTML. Students must be able to, without assistance, develop Web applications using JSPs and servlets using earlier versions of RAD.

Duration: 3 days

Level: Intermediate

Detailed Course Description

1. Introduction to Rational Application Developer	60
A. Installation Differences	
B. What’s New in V7.5	
C. Java Enterprise Edition 5 Support	
D. Enhancements to Web Tools	
E. Web 2.0 Support	
F. New Web Services Tools	
G. Enhanced JSF Support	
H. J2C Improvements	
I. Eclipse, Workbench, Workspaces and Perspectives	
J. Platform Changes	
K. Projects, Project Properties, Dependencies	
L. Project Migration	
M. Backwards Compatibility	
N. Improved Search and Find/Replace	
O. Deprecated Functions	
P. New Help Features, Samples, Tutorials	
LAB – RAD Workbench	30

2. Developing and Debugging Application Components	60
A. New Java Editor Features	
B. New Markers View	
C. Updated Problems, Bookmarks and Tasks views	
D. Content Assist Improvements	
E. New Quick Fixes, Assists and Clean Ups	
F. Enhanced Javadoc Hover and Javadoc View	
G. Build Path	
H. Resource Refactorings	
I. New Dropins Folder	
J. Managing Working Sets	
K. Enhanced Hyperlinks	
L. Template Enhancements	
M. Team/CVS Changes	
N. New Debug Features	
O. Sharing Launch Configurations	
P. Enhanced Expressions View	
 LAB – Creating the Model: Java Bean.....	 30
3. Java EE 5 Architecture Overview.....	45
A. Enterprise Application Overview	
B. J2EE Architecture and Containers	
C. What's New?	
D. Servlet 2.5	
E. JSP 2.1	
F. JSF 1.2	
G. EJB 3.0	
H. JPA	
I. JCA 1.5	
J. Java EE Application Deployment	
K. Web Services	
 LAB – Creating the Controller: Servlet.....	 20
4. Web Development Tools.....	60
A. JSP 2.1	
B. New Page Designer Features	
C. Struts Support	
D. Web Site Designer Enhancements	
E. Improved Web Diagram Editor	
F. System proxy configuration	
 LAB – Creating the View: JSP.....	 40
5. RAD: Server Perspective	30
A. Supported Servers and Feature Packs	
B. New Server Tools	
C. Profile Creation	
D. Connection Settings	
E. Improved Communication	
F. Rapid Deployment for WAS v7	
G. To Restart or Not To Restart	
H. Supported Databases	
I. Datasource Explorer	

- 6. Web Services Development: Part 145**
 - A. Supported Specifications
 - B. WS-I Compliance
 - C. Runtime Environments
 - D. WSDL Editor Enhancements
 - E. Creating a JAX-WS Web Service
 - F. Enabling MTOM support
 - G. Using Custom Binding Files
 - H. JAXB Schema to Java Bean Wizard
 - I. Generating a Schema Library
 - J. Generated Files
 - K. Services View
 - L. Testing the Web Service
 - M. Deployment
- LAB – Creating a JAX-WS Web Service45**
- 7. Web Services Development: Part 245**
 - A. Creating a JAX-WS Web Service Client
 - B. Portable Client Code
 - C. Generated Client Files
 - D. New Validation, Refactoring and Quickfix Functions
 - E. WS-Policy
 - F. Provided Policy Sets
 - G. Managing Policy Sets
- LAB – Creating a JAX-WS Web Service Client30**
- 8. EJB Development Tools.....45**
 - A. Java EE 5 Projects
 - B. Support for EJB 3.0
 - C. Enterprise Explorer
 - D. New Validation, Refactoring and Quickfix Functions
 - E. Module Dependency Editor
 - F. Annotations View
 - G. Deployment Code
- 9. JPA Tools45**
 - A. JPA Projects
 - B. Adding JPA Support
 - C. JPA Entity and Manager Beans
 - D. Mapping Approaches
 - E. Create Mappings
 - F. Building Queries
 - G. Managing the persistence.xml and orm.xml files
 - H. JPA Consumption Wizard
 - I. New Validation, Refactoring and Quickfix Functions
 - J. Datasource Deployment
- LAB – Creating an EJB45**
- 10. WebSphere Application Server Architecture Overview.....60**
 - A. Requirements

- B. Application Servers & Plug-ins
- C. Application Server Services
- D. Java EE 5 Support
- E. Dependency Injection
- F. Web Services Support
- G. Policy Sets
- H. Portlet 2.0 Support
- I. Business Level Applications
- J. WebSphere Administration
- K. Intelligent Provisioning
- L. Administrative Agent
- M. Job Manager
- N. Security Management and Auditing improvements
- O. New Wsadmin Objects
- P. IBM Rational Application Developer Assembly and Deploy V7.5

11. Enterprise Application Deployment.....30

- A. Deployment Process
- B. Deployment Preparation
- C. Defining a Data Source
- D. Application Installation
- E. Securing Resources
- F. RAD v7.5 to WAS 7

LAB – Deploying to WAS v7 (optional).....30

12. JSF Tools..... 45

- A. JSF Support
- B. JSF Development Steps
- C. JSF Tool Enhancements
- D. JSF Configuration Editor
- E. Creating Custom JSF Components
- F. Third Party JSF Component Libraries
- G. Generation Templates

Lab – Creating Pages with JSF and SDO45

13. Web 2.0 Development Tools

- A. JavaScript Editing
- B. JavaScript Debugging
- C. DOJO Support
- D. New Palette View Features
- E. AJAX Proxy
- F. Web Remoting
- G. RPC Adapter
- H. Validation Capabilities

Lab – Creating Pages with AJAX45

14. RAD: Portal Tools45

- A. JSR 268
- B. Portal Development Process
- C. Views and Editors that Support Portlet Development
- D. Support for WebSphere Portal V6.1

Note: Timings are approximate and may vary.