

ITSC 2036 Servlet and JSP Development with Rational Application Developer V6

Duration

36-hours

Course Description

This course is designed to introduce Java developers to the development and testing of server-side applications based on the J2EE component model, using IBM WebSphere and IBM Rational tools. The scope of the course covers:

- The development and testing of server-side applications that use servlets and JavaServer Pages (JSP) technology for the control and flow of e-business applications, and use JavaBeans to represent the business logic
- The development and use of custom tags for JavaServer Pages
- Servlet filters and listeners

Students will develop servlets, JSP pages, JSP custom tags and JavaBeans with IBM WebSphere and IBM Rational tools (currently this includes Rational Application Developer for building servlets, building JSP pages, building JSP custom tags and building JavaBeans, and WebSphere Application Server for application deployment integration testing).

Audience

Java developers who need to learn how to build Web-based server-side Java applications, using J2EE servlet and JSP based solutions.

Prerequisites

To get the most out of this course offering, students must meet the following prerequisites. Students who do not meet these prerequisites may not be able to fully understand and utilize the materials presented in the course:

- Develop, test, and deploy Java applications (as covered in course JA341 Developing and Testing OO Applications with Java or equivalent.)
- Understand server-side Java applications (as covered in distance learning module VJ10A or equivalent).

Learning Objectives

- Describe the J2EE component model and its use in building server-side applications
- Develop, debug, and test server-side applications using IBM Rational Application Developer
- Develop and test servlets using IBM Rational Application Developer
- Develop and test JSPs using IBM Rational Application Developer
- Develop and test JavaBeans using IBM Rational Application Developer
- Develop and test JSP custom tags using IBM Rational Application Developer
- Use JavaBeans, JSPs, and servlets in accordance with the MVC programming model
- Describe deployment and run-time issues of J2EE-based applications including security, scaling, work load management in the context of WebSphere Application

Server

- Assemble and perform integration testing of J2EE based applications using the IBM WebSphere tools: WebSphere Application Server.
- Identify the best practices needed to design and build Web applications (application frameworks and design patterns)

Required Materials

IBM Course Number: SW284 [supplied]

Evaluation

Students who participate in class discussions, complete course lab work, and miss no more than two class meetings will be awarded 3.6 continuing education units.

Course outline

- Develop and test servlets
- Develop and test JSPs
- Develop and test J2EE based applications using sound application architecture (MVC and scalable architecture)
- Develop and test business logic using JavaBeans
- Develop and test JSP custom tags