Servlet Programming using RAD7

CDT730

This course makes extensive use of hands-on examples and exercises to familiarize the student with servlet programming. While the emphasis of this course is on the programming of servlets, participants will also gain expertise in working with many of the features of IBM's Rational Application Develop V7: features which make it the platform of choice for servlet development.

Audience
- Java programmers who want to increase their knowledge of the Java language.
- Java programmers who will be building enterprise applications using J2EE.

Prerequisites
- Prior programming experience or training in Java Programming using RAD7 is required.

Course Length
- Three days

Learning Objectives
- Understand the servlet life cycle.
- Develop and test servlets using RAD7.
- Know how and when to use the init(), doGet(), doPost(), and destroy() methods.
- Create HTML/XHTML web pages, especially forms and input controls.
- Retrieve information from HTML/XHTML forms.
- Use serialization, cookies, and session managed persistence to store and retrieve objects.
- Use JDBC to access relational databases from a servlet.

Teaching Methods
- Lecture with hands-on examples
- Supplemental hands-on exercises

Course Outline

QG3

Knowing the players
- WAS vs. RAD7
- Creating a test server

Life Cycle of a Servlet
- Creating a Web Application
- init()
- doGet()
- doPost()
- destroy()

Parameters
- Creating servlet parameters
- Accessing servlet parameters
- Creating context parameters
- Accessing context parameters

Creating a web page
- HTML/XHTML with RAD 6
- Design, Source, and Preview views
- Easy web page creation with Design view
- Form
- Label
- Text field
- List box
- Radio button
- Checkbox
- Submit button
- method = "Get" vs. method = "Post"

Accessing form parameters
- getParameter()
- Detecting null input
- Data validation techniques
- Exception handling

Java Beans
- Defining entity beans
- Instantiating entity beans with form data

Object Persistence
- Data Access Object (DAO) design pattern
- Using serialization
- Using cookies
- Using session managed persistence
- Using JDBC