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| Course Name | IBM CE - Enterprise Applications Development using Rational Application Developer |
| Course Code | RMSJSPFIN |
| Course Duration | 50 Hours |
| About the Technology | <p>IBM® Rational® Application Developer for WebSphere® Software v7.5 (Application Developer, for short) is the full function Eclipse 3.4 based development platform for developing Java™ Standard Edition Version 6 (Java SE 6) and Java Enterprise Edition Version 5 (Java EE 5) applications with a focus on applications to be deployed to IBM WebSphere Application Server and IBM WebSphere Portal. Rational Application Developer provides integrated development tools for all development roles, including Web developers, Java developers, business analysts, architects, and enterprise programmers.</p> <p>Rational Application Developer is part of the IBM Rational Software Delivery Platform (SDP), which contains products in four life cycle categories:</p> <ul style="list-style-type: none"> - Architecture management, which includes integrated development environments - Change and release management - Process and portfolio management - Quality management |
| About the course | <p>This course is designed to introduce Java developers to the development and testing of serverside applications based on Java EE component model, using IBM WebSphere and IBM Rational tools.</p> <p><i>Upon completion of the course, students will be able to:</i></p> <ul style="list-style-type: none"> ○ Describe Java EE component model and its use in building server-side applications ○ Develop, debug, and test server-side applications using IBM Rational Application Developer and IBM WebSphere Application Server ○ Develop and test servlets using IBM WebSphere and IBM Rational tools ○ Develop and test JSP pages using IBM WebSphere and IBM Rational tools ○ Learn how to use JavaBeans, JSPs and servlets in accordance with the ○ Model/View/Controller (MVC) programming model ○ Develop, test, and use JSP custom tags ○ Describe deployment and run-time issues of Java EE-based applications including security, scalability, and work load management in the context of WebSphere Application Server ○ Assemble and perform integration testing of Java EE-based applications using ○ WebSphere Application Server ○ Identify best practices for designing and building Web applications such as application frameworks and design patterns |

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| Audience | <p>This instructor-led, classroom course is intended for the following audience:</p> <ul style="list-style-type: none"> ○ Java developers <p>Students of</p> <ul style="list-style-type: none"> – Engineering (CS, IT)- 3rd / 4th Year – MCA – 1st / 2nd Year – BSc, BA -2nd / 3rd Year |
| Pre-Requisites | <p>To benefit from this course, students should have the following skills or experience:</p> <ul style="list-style-type: none"> ○ Develop, test, and deploy Java applications ○ Understand server-side Java applications <p>Pre-requisites courses:</p> <p>RPROOPJFN - IBM CE Object -Oriented Programming using Java</p> |
| Contents | <p><i>This course covers the following topics:</i></p> <ul style="list-style-type: none"> ○ Introduction to Java EE Web Component ○ Overview of Servlets ○ Java EE Perspective of the Rational Application Developer ○ Java EE Container Services Overview ○ Servlet API ○ Library Case Study ○ Overview of JavaServer Pages ○ JavaServer Pages Specification and Syntax ○ Page Designer in Rational Application Developer ○ Debugging Web Applications ○ Web Archive Deployment Descriptor ○ Session State Storage Issues ○ Cookie API ○ HttpSession: Management of Application Data ○ URL Rewriting ○ Best Practices for Session Management ○ JavaBeans and the MVC Pattern ○ JavaServer Pages with JavaBeans ○ JSP Expression Language ○ JSP Custom Tags ○ JSP Tag Files ○ Servlet Filtering ○ Servlet Listeners ○ Best Practices for Server-Side Application Development ○ Java EE Packaging and Deployment ○ Installing an application in WebSphere Application Server V7.0 ○ Web Application Security |



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| Applicable IBM Certification | IBM Certified Application Developer - Rational Application Developer v7 - Test 000-136: Rational Application Developer v7 |
| Follow on Courses | <ul style="list-style-type: none">- IBM CE - Fundamentals of Software Testing with IBM Rational Tools- IBM CE Enterprise Application Project |