
Java 2: Using IBM VisualAge to Create Java Applications

Course Length: 5 Days

Course Description

Overview: *Java 2: Using IBM VisualAge to Create Java Applications* introduces the major elements of the VisualAge Java programming environment.

Prerequisites: To ensure your success, we recommend you first take the following courses or have equivalent knowledge:

- *Java 2: Programming Language* (required)
- *An introductory knowledge of Structured Query Language (SQL) is recommended.*

Delivery method: Instructor-led, group-paced, classroom-delivery learning model with structured hands-on activities.

Java 2: Using IBM VisualAge to Create Java Applications follows the objectives of the Certified Solution Developer and covers Skill Set 2B.

Performance-based Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Create applications and applets in VisualAge.
- Use many of the VisualAge SmartGuides.
- Navigate through the features of the VisualAge environment, and be able to use the debugger.
- Use the Visual Composition Editor to create GUI-rich visual applications.
- Use Connections in the Visual Composition Editor to specify event handling and property-to-property connections.
- Create reusable, “visible” form-fragment beans.
- Create new “invisible” beans that have events and properties.
- Use advanced Swing techniques in VisualAge, including using TabbedPanels and ScrollPanels, and specifying the data model of various beans, such as JLists.
- Understand and modify the code that the VisualAge Visual Composition Editor generates.
- Access databases using the Java JDBC libraries.
- Access databases using specialized database beans, such as the Select and DBNavigator beans in the Visual Composition Editor.
- Create custom database-aware TableModels beans for use with Swing JTables.

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Course content

Lesson 1: Build Your First Applet and Applications Using VisualAge

- The VisualAge Environment
- Your First Visual Application using the Application SmartGuide

Lesson 2: Using the Basic VisualAge SmartGuides

- Some VisualAge Concepts and SmartGuides
- Creating Projects in VisualAge
- Using SmartGuides to Create Packages
- Creating Classes and Interfaces
- Some Basics of Using VisualAge
- Creating Fields and Methods with SmartGuides

Lesson 3: The VisualAge Environment

- The Workbench Projects Window
- Setting VisualAge Options
- Using the Debugger and Setting Breakpoints
- Where Are the Files? Development Without Files
- Creating and Managing Multiple Editions of Your Java Code

Lesson 4: The Visual Composition Editor

- The Visual Composition Editor
- Editing Properties
- Adding Menus to an Application in VisualAge
- Using Border Layouts
- Opening and Closing Windows

Lesson 5: Creating Connections Between Java Beans

- Understanding Event-Response Programming
- Understanding Connections
- Using VisualAge Connections
- Beans
- Using Non-Visual Beans and Creating Property-to-Property Connections
- Understanding Business Applications

Lesson 6: Reusable Form Fragments

- Understanding the Benefits of Reusable Form Fragments
- Creating a Reusable Form Fragment
- Using the Form Fragment Bean
- Promoting Properties and Events
- Form Fragment Customization

Lesson 7: Creating "Invisible" Beans from Scratch

- Create an "Invisible" Bean with Bound Properties
- Adding Properties with Computed Values
- Add Standard Events to a Bean
- Add Custom Events to a Bean

Lesson 8: Advanced Swing Techniques

Swing Beans to Manage the Screen Real Estate
AWT vs. Swing
Using The List Model

Lesson 9: Understanding the Generated Code

What Kind of Code Does VisualAge Generate?
Error Processing: Handling Exceptions in VisualAge-generated Code

Lesson 10: Using JDBC to Access Databases

Databases and Connections
Reading Data From a Database
Modifying Data in Your Database

Lesson 11: Using Visual Components to Access Databases

Setting Connection Properties of a Select Bean
Simple Queries: Setting the SQL Properties of a Select Bean
Using the DBNavigator Bean to Step Through a Database

Lesson 12: Creating Your Own Custom Database-Aware JTable Models

Understanding the JTable Model
Creating Database-Aware TableModels for use with JTables