

# CIW Java Programming Series: Elective Offering

## Sun Certified Java Programmer Exam Preparation Guide (CCL03-CEJPEP-PR-107)

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*Sun Certified Java Programmer Exam Preparation Guide* is a 18-hour course that reviews the objectives and topics addressed in the *Sun Certified Programmer for the Java 2 Platform* exam. This course can be taught as part of an instructor-led program or used as a self-study exam preparation guide. In this course, students will learn how to properly create Java source files, and define packages and all form of classes and interfaces. Students will learn the fundamentals of the Java language, including flow control structures, variable and method declarations, operators and assignments, and garbage collection. Students will also be introduced to threads and thread control, and to the `java.awt` package and the Collections API.

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## Topics

### Java Language Fundamentals

- Java Source Files
- Keywords
- Primitive Data Types
- The Java *main* Method
- Variable Initialization
- The Math Class
- Garbage Collection

### Java Modifiers

- Introduction to Java Modifiers
- Classes
- Methods
- Variables
- Static Initializers

### Flow Control In Java

- The *while*, *do*, and *for* Loops
- The *continue*, *break*, *if/else* and *switch* Statements
- Exceptions
- Throwing and Catching Exceptions

### Operators and Assignments

- Introduction to Expressions
- Unary, Arithmetic, Binary Shift, Comparison, Short-Circuit, Ternary and Assignment Operators

### Object Orientation

- Encapsulation
- Abstraction
- Method Overloading and Overriding
- Constructors
- Inner Classes
- Arrays

### Threads

- Creating Threads
- Thread States
- Thread Synchronization

### The java.awt Package

- Layout Managers
- Events

### The Collections API

- Introduction to Collections
- The Collections API
- Using the Collections API

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## Target Audience

Internet application developers, database architects, middleware programmers, Java developers, and client/server developers.

## Job Responsibilities

Develop n-tier database and legacy connectivity solutions for Web applications using Java, Java APIs, JDBC solutions, middleware tools, and distributed object models such as CORBA/ORB and IIOP.

## Prerequisites

Students must have taken the *CIW Java Programming Fundamentals* course or have equivalent experience programming in Java.

## Duration

18 hours