

# uCertify

## Course Outline

### Java SE 7 Programmer I



28 Mar 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

#### Syllabus

Chapter 1: Introducing the Basics of Java

Chapter 2: Appendix A: How to Install JDK 8 (on Windows, Ubuntu, and MAC)

Chapter 3: Applying Data Types in Java Programming

Chapter 4: Using Java Operators and Conditional Logic

Chapter 5: Using Java Arrays

Chapter 6: Using Loops in Java Code

Chapter 7: Encapsulating Data and Exposing Methods in Java

Chapter 8: Using Java Methods to Communicate

Chapter 9: Using Java Constructors

Chapter 10: Inheriting Code and Data in Java

Chapter 11: Understanding Java Interfaces and Abstract Classes

Chapter 12: Throwing and Catching Exceptions in Java

Chapter 13: Core Java APIs

#### Videos and How To

9. Practice Test

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Features

10. Live labs

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11. Post-Assessment

## 1. Course Objective

Gain hands-on experience to pass the Oracle OCA/OCP 1Z0-803 certification exam with Java SE 7 Programmer I course and lab. The lab is cloud-based, device-enabled, and can be easily integrated with an LMS. Interactive chapters comprehensively cover Oracle Java 1Z0-808 exam objectives and provide knowledge in areas such as objected-oriented design and Java programming, use practical problems to illustrate Java application building techniques and concepts, develop an understanding of Java vocabulary, create an understanding of where Java fits in the application development landscape, and more.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

## 3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

**476**  
EXERCISES

## 4. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

**152**

**QUIZZES**

## 5. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

**149**

**FLASHCARDS**

## 6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.

**149**

**GLOSSARY OF  
TERMS**

## 7. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 8. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 9. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 10. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been

recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform

2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 11. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

## Syllabus

### Chapter 1: Introducing the Basics of Java

- Overview
- Understanding Java Class Structure
- Writing a main() Method



- Importing Other Java Classes
- Understanding Variable Scope in Java Code
- Review Questions

## Chapter 2: Appendix A: How to Install JDK 8 (on Windows, Ubuntu, and MAC)

- Downloading JDK
- Installing JDK on Microsoft Windows
- Installing JDK on Ubuntu

## Chapter 3: Applying Data Types in Java Programming

- Overview
- Creating, Using, and Destroying Objects
- Distinguishing between Object References and Primitives
- Declaring and Initializing Variables
- Default Initialization of Variables
- Reading and Writing Object Fields
- Using the StringBuilder Class and Its Methods
- Creating and Manipulating Strings

- Review Questions

## Chapter 4: Using Java Operators and Conditional Logic

- Overview
- Using Java Operators
- Using Parentheses to Control Operators
- Understanding Object Equality
- Using if and if/else Statements
- Using a switch Statement
- Review Questions

## Chapter 5: Using Java Arrays

- Overview
- Understanding Java Arrays
- Using a One-Dimensional Array
- Using a Multi-Dimensional Array
- Using an ArrayList Object
- Review Questions

## Chapter 6: Using Loops in Java Code

- Overview
- Applying while Loops
- Applying do/while Loops
- Applying for and For-Each Loops
- Comparing Loop Constructs
- Using continue and break Statements
- Review Questions

## Chapter 7: Encapsulating Data and Exposing Methods in Java

- Overview
- Encapsulating Data
- Exposing Data through Methods
- Applying Access Modifiers
- Abstracting Data
- Review Questions

## Chapter 8: Using Java Methods to Communicate

- Overview
- Designing Methods
- Overloading Methods
- Declaring Methods and Fields static
- Passing Data among Methods
- Review Questions

## Chapter 9: Using Java Constructors

- Overview
- Using the Default Constructor
- Defining Alternate Constructors
- Adding Parameters to Constructors
- Overloading Constructors
- Review Questions

## Chapter 10: Inheriting Code and Data in Java

- Overview
- Extending a Class
- Using the super Keyword

- Overriding a Method
- Casting Objects
- Implementing Polymorphic Behavior
- Review Questions

## Chapter 11: Understanding Java Interfaces and Abstract Classes

- Overview
- Understanding Abstract Types
- Using Abstract Classes
- Using Interfaces
- Using the enum Type
- Distinguishing between Abstract and Concrete References
- Review Questions

## Chapter 12: Throwing and Catching Exceptions in Java

- Overview
- Understanding the Role Exceptions Play
- Using a try-catch Block

- Understanding Exception Types
- Calling Methods That Throw Exceptions
- Recognizing Common Exception Types
- Review Questions

## Chapter 13: Core Java APIs

- Creating and Manipulating Strings
- Using the StringBuilder Class
- Understanding Equality
- Understanding Java Arrays
- Understanding an ArrayList
- Working with Dates and Times

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**51**

VIDEOS

**04**

HOURS

## 12. Practice Test

Here's what you get

**98**

PRE-ASSESSMENTS  
QUESTIONS

**4**

FULL LENGTH TESTS

**97**

POST-ASSESSMENTS  
QUESTIONS

### Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

#### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 13. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations

- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

## Lab Tasks

### Core Java APIs

- Understanding string methods
- Creating an array
- Understanding searching using array
- Sorting an array
- Creating one-dimensional array
- Understanding multi-dimensional array
- Understanding wrapper class
- Printing the Date and Time Format

## Here's what you get



## 14. Post-Assessment



After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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