

# uCertify

## Course Outline

**Java SE 11 Prog I, Oracle Certified Professional  
(OCP)**



20 May 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: Introduction

Chapter 2: Welcome to Java

Chapter 3: Java Building Blocks

Chapter 4: Operators

Chapter 5: Making Decisions

Chapter 6: Core Java APIs

Chapter 7: Lambdas and Functional Interfaces

Chapter 8: Methods and Encapsulation

Chapter 9: Class Design

Chapter 10: Advanced Class Design

Chapter 11: Exceptions

Chapter 12: Modules

Videos and How To

9. Practice Test

Here's what you get

Features

10. Performance Based labs

Lab Tasks

Here's what you get

11. Post-Assessment

## 1. Course Objective

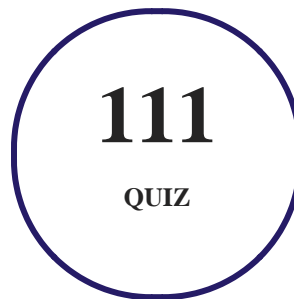
Start your prep for the Oracle Java SE 11 certification exam with the Java SE 11 Prog I, Oracle Certified Professional (OCP) course and lab. The lab provides a hands-on learning experience in a safe and online environment. The Java certification training course covers all the 1Z0-815 exam objectives and includes topics such as Java arrays, operators and decision constructs, encapsulation, modules, and much more. The Oracle Java certification course will help you learn Java online with its comprehensive learning resources.

## 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.

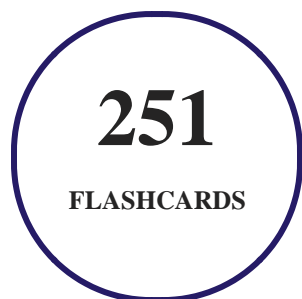
## 3. Quiz

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.



## 4. 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.



## 5. 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.



## 6. 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.

## 7. 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.

## 8. 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.

## 9. 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

## 10. 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: Introduction

- Understanding the Exam
- Reading This course
- Studying for the Exam
- Reviewing Exam Objectives

#### Chapter 2: Welcome to Java

- Learning About the Java Environment
- Identifying Benefits of Java



- Understanding the Java Class Structure
- Writing a main() Method
- Understanding Package Declarations and Imports
- Ordering Elements in a Class
- Code Formatting on the Exam
- Summary
- Exam Essentials

## Chapter 3: Java Building Blocks

- Creating Objects
- Understanding Data Types
- Declaring Variables
- Initializing Variables
- Managing Variable Scope
- Destroying Objects
- Summary
- Exam Essentials

## Chapter 4: Operators

- Understanding Java Operators
- Applying Unary Operators
- Working with Binary Arithmetic Operators
- Assigning Values
- Comparing Values
- Making Decisions with the Ternary Operator
- Summary
- Exam Essentials

## Chapter 5: Making Decisions

- Creating Decision-Making Statements
- Writing while Loops
- Constructing for Loops
- Controlling Flow with Branching
- Summary
- Exam Essentials

## Chapter 6: Core Java APIs

- Creating and Manipulating Strings
- Using the StringBuilder Class
- Understanding Equality
- Understanding Java Arrays
- Understanding an ArrayList
- Creating Sets and Maps
- Calculating with Math APIs
- Summary
- Exam Essentials

## Chapter 7: Lambdas and Functional Interfaces

- Writing Simple Lambdas
- Introducing Functional Interfaces
- Working with Variables in Lambdas
- Calling APIs with Lambdas
- Summary
- Exam Essentials

## Chapter 8: Methods and Encapsulation

- Designing Methods
- Working with Varargs
- Applying Access Modifiers
- Applying the static Keyword
- Passing Data among Methods
- Overloading Methods
- Encapsulating Data
- Summary
- Exam Essentials

## Chapter 9: Class Design

- Understanding Inheritance
- Creating Classes
- Declaring Constructors
- Inheriting Members
- Understanding Polymorphism
- Summary
- Exam Essentials

## Chapter 10: Advanced Class Design

- Creating Abstract Classes
- Implementing Interfaces
- Introducing Inner Classes
- Summary
- Exam Essentials

## Chapter 11: Exceptions

- Understanding Exceptions
- Recognizing Exception Classes
- Handling Exceptions
- Calling Methods That Throw Exceptions
- Summary
- Exam Essentials

## Chapter 12: Modules

- Introducing Modules
- Creating and Running a Modular Program

- Updating Our Example for Multiple Modules
- Diving into the module-info File
- Discovering Modules
- Reviewing Command-Line Options
- Summary
- Exam Essentials

## 11. Practice Test

Here's what you get

**80**

PRE-ASSESSMENTS  
QUESTIONS

**2**

FULL LENGTH TESTS

**80**

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.

## 12. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

### Lab Tasks

- Using Comments
- Creating the main() Method
- Importing a Package
- Creating a Constructor
- Creating an Object
- Using Java Primitives
- Using Multiple Variables
- Using a Variable

- Creating a Local Variable
- Using the Modulus Operator
- Using Relational Operators
- Using the Logical OR Operator
- Using the Logical AND Operator
- Using Typecasting
- Using the instanceof Operator
- Using the Ternary Operator
- Using the switch Statement
- Using the if-else Statement
- Using the if Statement
- Using the while Loop
- Using the do/while Loop
- Using the for Statement
- Using the for each Loop
- Using the return Statement
- Using the Nested Loop
- Using the break Statement
- Using the continue Statement
- Using the startsWith() Method
- Using the charAt() Method
- Using the equals() Method
- Using the endsWith() Method
- Using the indexOf() Method
- Using the substring() Method
- Concatenating Strings
- Using the toLowercase() Method
- Using the toUppercase() Method
- Using the contains() Method
- Using the delete() Method
- Using the length() Method
- Using the reverse() Method
- Using the append() Method
- Using the insert() Method
- Using the toString() Method



- Using the mismatch() Method
- Comparing Two Arrays
- Searching in an Array
- Sorting an Array
- Accessing an Array
- Using the clear() Method
- Using the set() Method
- Counting Elements of a List
- Using the isEmpty() Method
- Using the replace() Method
- Removing an Element
- Using the add() Method
- Using the TreeSet
- Using the HashSet
- Using a Map
- Using a Set
- Using the round() Method
- Using the max() Method
- Using the min() Method
- Using the pow() Method
- Using a Lambda Expression
- Creating an Interface
- Using the Supplier Interface
- Using the Consumer Interface
- Using the Predicate Interface
- Creating a Lambda Expression With Multiple Parameters
- Creating a Lambda Expression With a Single Parameter
- Creating a Lambda Expression Without Parameter
- Using the forEach() Method
- Using the removeIf() Method
- Using the Access Modifier
- Creating a Method
- Using the Static Method
- Using Static Variables
- Calling Method of Another Class

- Passing Parameters to a Method
- Overloading a Method
- Implementing Encapsulation
- Using the Child Inheritance
- Using the this Keyword
- Using the Super Class
- Calling Another Constructor
- Using Method Overriding
- Using Polymorphism
- Using the Abstract Method
- Using the Static Inner Class
- Using the throws Keyword
- Using Runtime Exceptions
- Using the finally Block
- Using Multiple catch Blocks
- Using the try/catch Block

## Here's what you get



### 13. 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.

**GET IN TOUCH:**

[www.uCertify.com](http://www.uCertify.com)