

Foreword

Java is now over twenty years old and the current release, JDK 8, despite its name, is really the eleventh significant release of the platform. Whilst staying true to the original ideas of the platform, there have been numerous developments adding a variety of features to the language syntax as well as a huge number of APIs to the core class libraries. This has enabled developers to become substantially more productive and has helped to eliminate a variety of common situations that can easily result in bugs.

Java has continued to grow in popularity, which is in large part attributable to the continued evolution of the platform, which keeps it fresh and addresses things that developers want. According to some sources, there are more than nine million Java programmers across the globe and this number looks set to continue to grow as most universities use Java as a primary teaching language.

With so many Java programmers available to employers, how do they ensure that candidates have the necessary skills to develop high-quality, reliable code? The answer is certification: a standardized test of a developer's knowledge about the wide variety of features and techniques required to use Java efficiently and effectively. Originally introduced by Sun Microsystems, the certification process and exam has been updated to match the features of each release of Java. Oracle has continued this since acquiring Sun in 2010.

Taking and passing the exams is not a simple task. To ensure that developers meet a high standard of knowledge about Java, the candidate must demonstrate the ability to understand a wide variety of programming techniques, a clear grasp of the Java syntax, and a comprehensive knowledge of the standard class library APIs. With the release of JDK 8, not only do Java developers need to understand the details of imperative and object-oriented programming, they now need to have a grasp of functional programming so they can effectively use the key new features: lambda expressions and the Streams API.

Which is why, ultimately, you need this book to help you prepare for the exam. The authors have done a great job of presenting the material you need to know to pass

the exam in an approachable and easy-to-grasp way. The book starts with the fundamental concepts and language syntax and works its way through what you need to know about object-oriented programming before addressing more complex topics like generic types. The latter part of the book addresses the most recent changes in JDK 8, that of lambda expressions, the Streams API, and the new Date and Time API.

Having worked with Java almost since it was first released, both at Sun Microsystems and then at Oracle Corporation, I think you will find this book an invaluable guide to help you pass the Oracle Certified Associate Exam for Java SE 8. I wish you the best of luck!

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