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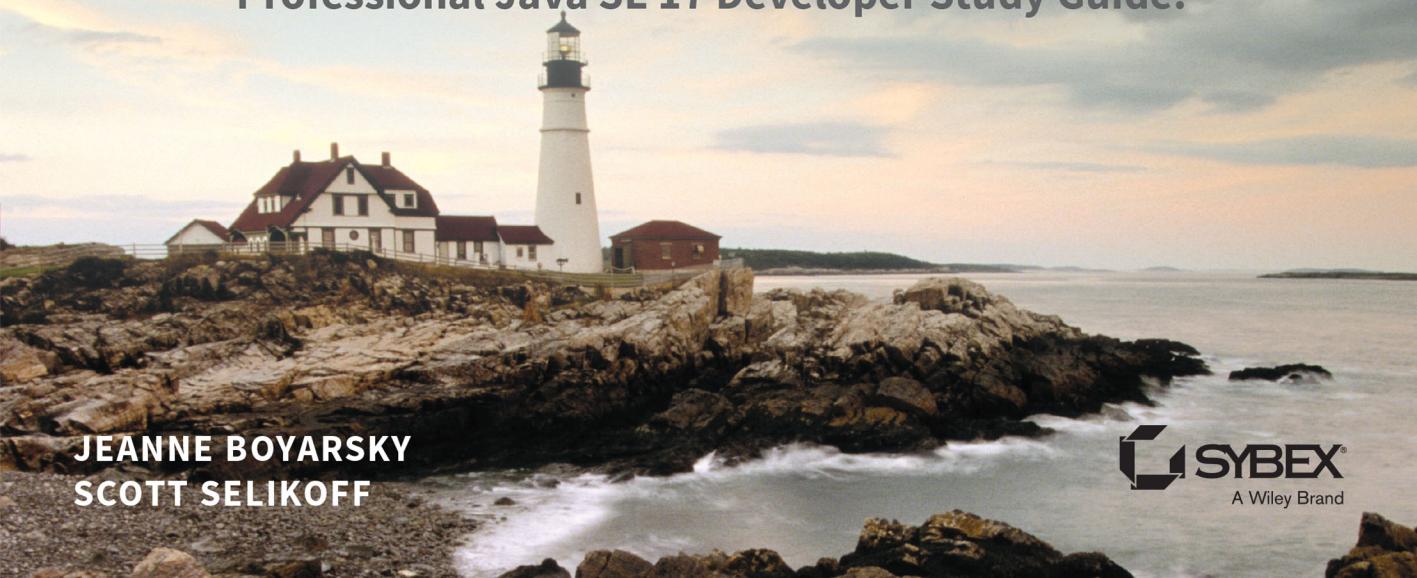
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JAVA SE 17 DEVELOPER

PRACTICE TESTS

EXAM 1Z0-829

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JEANNE BOYARSKY
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Java SE 17 Developer

Practice Tests

EXAM 1Z0-829



Jeanne Boyarsky

Scott Selikoff



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To the world reopening and many new adventures.

—Jeanne

*In loving memory of my other mom, Dalene, for raising a talented daughter
and partner, who fills me with happiness every day.*

—Scott

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Scott could not have reached this point without his wife, Patti, and family, whose love and support make this book possible. He would like to thank his twin daughters, Olivia and Sophia, and youngest daughter, Elysia, for their patience and understanding and bringing daddy a cup of cold brew coffee when it was "time for Daddy to work in his office!" Scott would like to extend his gratitude to his wonderfully patient co-author, Jeanne, on this, their ninth book. He doesn't know how she puts up with him, but he's glad she does and is thrilled at the quality of books we produce. Finally, Scott would like to thank his mother, Barbara Selikoff (a retired teacher), for teaching him the value of education, and his father, Mark Selikoff, for instilling in him the benefits of working hard.

Both Jeanne and Scott would like to give a big thank-you to the readers of our books. Hearing from all of you who enjoyed the book and passed the exam is a great feeling. We'd also like to thank those who pointed out errors and made suggestions for improvements to our books. Radu Pana and Vlad Alin were the first to find any in our Java 17 Study Guide.

About the Authors

Jeanne Boyarsky was selected as a Java Champion in 2019 and is a leader of the NYJavaSIG. She has worked as a Java developer for more than 20 years at a bank in New York City where she develops, mentors, and conducts training. Besides being a senior moderator at CodeRanch.com in her free time, she works on the forum code base. Jeanne also mentors the programming division of a FIRST robotics team, where she works with students just getting started with Java. She also speaks at several conferences each year.

Jeanne got her Bachelor of Arts degree in 2002 and her Master's in Computer Information Technology degree in 2005. She enjoyed getting her Master's degree in an online program while working full time. This was before online education was cool! Jeanne is also a Distinguished Toastmaster and a Scrum Master. You can find out more about Jeanne at www.jeanneboyarsky.com or follow her on Twitter @JeanneBoyarsky.

Scott Selikoff is a professional software developer and author with over 20 years of experience developing full-stack database-driven systems. Skilled in a plethora of software languages and platforms, Scott currently works as a Staff Software Engineer at Google, specializing in Architecture and Cloud Services.

A native of Toms River, New Jersey, Scott achieved his Bachelor of Arts degree from Cornell University in Mathematics and Computer Science in 2002, after three years of study. In 2003, he received his Master of Engineering degree in Computer Science, also from Cornell University. As someone with a deep love of education, Scott has always enjoyed teaching others new concepts. Scott is a Leader of the Garden State Java User Group, helping to facilitate discussions and exchange of ideas within the community. He's also taught lectures at multiple universities and conferences.

Scott lives in New Jersey with his loving wife, Patti; three amazing daughters, twins Olivia and Sophia and little Elysia; a very playful dog, Georgette; and three silly cats, Snowball, Sugar, and Minnie Mouse. In his spare time, he plays violin in the Toms River Multigenerational Orchestra. You can find out more about Scott at www.linkedin.com/in/selikoff or follow him on Twitter @ScottSelikoff.

Jeanne and Scott are both moderators on the CodeRanch.com forums and can be reached there for questions and comments. They also co-author a technical blog called Down Home Country Coding at www.selikoff.net.

In addition to this book, Jeanne and Scott are authors of eight best-selling Java books:

- *OCA: Java 8 Programmer I Study Guide* (Sybex, 2015)
- *OCP: Java 8 Programmer II Study Guide* (Sybex, 2016)
- *OCA / OCP Java 8 Practice Tests* (Sybex, 2017)
- *OCJP Java 11 Programmer I Study Guide* (Sybex, 2019)

- *OCP Java 11 Programmer II Study Guide* (Sybex, 2020)
- *OCP Java 11 Developer Complete Study Guide* (Sybex, 2020)
- *OCP Java 11 Practice Tests* (Sybex, 2021)
- *OCP Java 17 Developer Study Guide* (Sybex, 2022)

About the Technical Editor

Janeice DelVecchio has been a professional software developer for 12 years, and has had a lifelong love of programming and computers. Editing technical books is a fun task for her because she likes finding and fixing defects of all types.

In her day job she uses a very broad range of skills with technologies, including cloud computing, process automation, advanced unit testing, and DevOps. She also volunteers at CodeRanch.com, where she runs the Java class known as the Cattle Drive.

She is an expert with the Java programming language. If you ask her which language is the best, she will tell you that languages are tools and to pick the one that fits your use case. The first language she learned was BASIC, and one day she hopes to learn gaming development.

In her spare time, she enjoys cooking, solving puzzles, playing video games, and raising chickens. She loves eating sushi, drinking craft beer, and petting dogs—her guilty pleasure is '80s pop music. She lives in Litchfield County, Connecticut.

About the Technical Proofer

Elena Felder got into Java development back when the language lacked even generics, and she is delighted that the language, its tooling, and its community have continued growing and adapting to successfully keep up with the ever-changing world. She proofread one of Jeanne and Scott's first *Java 8 Certification Study Guide* chapters for fun and ended up doing it professionally ever since.

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Introduction

OCP Oracle Certified Professional Java SE 17 Developer Practice Tests is intended for those who want to become a Java 17 Oracle Certified Professional (OCP) by taking the 1Z0-829 exam, as well as those who want to test their knowledge of Java 17. If you are new to Java 17, we strongly recommend you start with a study guide to learn all of the facets of the language and come back to this book once you are thinking of taking the exam.

We recommend the best-selling *OCP Oracle Certified Professional Java SE 17 Developer Study Guide: Exam 1Z0-829* (Sybex, 2022), which we happen to be the authors of, to begin your studies. Unlike the questions in our study guide, which are designed to be harder than the real exam, the questions in this book mirror the exam format. All the questions in this book tell you how many answers are correct. They will say “Choose two” or “Choose three” if more than one answer is correct.

Regardless of which study guide you used to prepare, you can use this book to hone your skills, since it is based on topics on the actual exams.

Understanding the Exam

At the end of the day, the exam is a list of questions. The more you know about the structure of the exam, the better you are likely to do. For example, knowing how many questions the exam contains allows you to better manage your progress and time remaining. Table I.1 describes the overall structure of the exam.

TABLE I.1 Java 17 Professional Certification Exams

Exam Code	1Z0-829
Certification Title	Oracle Certified Professional: Java SE 17 Developer
Time Limit	90 minutes
Question Count	50 questions
Passing score	68%

For those good at math, that means you need to answer *approximately* 34 of the 50 questions correctly to pass. We say “approximately” because Oracle may include questions that they are testing out, which are unscored.

We recommend checking our blog in case Oracle changes this or there are any changes made to the 1Z0-829 Exam after these study guides were published.

www.selikoff.net/ocp17-pt



Java is now over 25 years old, celebrating being “born” in 1995. As with anything 25 years old, there is a good amount of history and variation between different versions of Java. For Java 17, Oracle has simplified things. Becoming an Oracle Certified Professional now requires passing only one exam, not two, and there are no Java 17 upgrade exams. Regardless of the previous certifications you hold, everyone takes the same, single Java 17 exam to become an Oracle Certified Professional.

Who Should Buy This Book

If you are looking to become a Java 17 Oracle Certified Professional, then this book is for you. It contains over 1,000 questions to help you prepare for the exam. We recommend using this book with our *OCP Java SE 17 Developer Study Guide* (Sybex, 2022). This book is about sharpening your knowledge of Java 17, while our study guide is about building it.

How This Book Is Organized

This book consists of 11 objective-based chapters followed by 3 full-length mock practice exams. There are some subtle differences between the objective-based chapters and practice exam chapters that you should be aware of while reading this book.

Using the Objective-Based Chapters

An objective-based chapter is composed of questions that correspond to an objective set, as defined by Oracle on the 1Z0-829 Exam. We designed the structure and style of each question in the objective-based chapters to reflect a more positive learning experience, allowing you to spend less time on each question but covering a broader level of material. For example, you may see two questions that look similar within a chapter but that contain a subtle difference that has drastic implications on whether the code compiles or what output it produces.

Just like the review questions in our study guide, these questions are designed so that you can answer them many times. While these questions may seem to be easier than exam questions, they will reinforce concepts if you keep taking them on a topic you don’t feel strongly on.

In our study guides, we often group related topics into chapters or split them for understanding. For example, in our study guides we presented parallel streams as part of the concurrency chapter since these concepts are often intertwined, whereas the 1Z0-829 Exam

splits concurrency and parallel streams across two separate objectives. In this book, though, the chapters are organized around Oracle's objectives so you can test your skills. While you don't need to read an entire study guide before using objective-based chapter in this book, you do need to study the relevant objectives.

Table I.2 shows what chapters you need to have read in our Java 17 study guide at a minimum before practicing with the questions in this book.

TABLE I.2 Oracle objectives and related study guide chapters

Chapter in This Book	Objectives	Study Guide Chapter
1	Handling Date, Time, Text, Numeric and Boolean Values	1, 2, 4
2	Controlling Program Flow	3
3	Utilizing Java Object-Oriented Approach	1, 3, 5, 6, 7, 8
4	Handling Exceptions	11
5	Working with Arrays and Collections	4, 9
6	Working with Streams and Lambda expressions	10, 13
7	Packaging and Deploying Java Code and Use the Java Platform Module System	12
8	Managing Concurrent Code Execution	13
9	Using Java I/O API	14
10	Accessing Databases Using JDBC	15
11	Implementing Localization	11



Some of our chapters have a lot of questions. For example, Chapter 3 contains more than 200 questions. This is based on how Oracle chose to organize its objectives. We recommend doing these larger chapters in batches of 30–50 questions at a time. That way, you can reinforce your learning before doing more questions. This also lets you practice with sets of questions that are closer to the length of the exam.

Taking the Practice Exams

Chapters 12, 13, and 14 of this book contain three full-length practice exams. The questions in these chapters are quite different from the objective-based chapters in a number of important ways. These practice exam questions tend to be harder because they are designed to test your cumulative knowledge rather than reinforcing your existing skillset. In other words, you may get a question that tests two discrete topics at the same time.

Like the objective chapters, we do indicate exactly how many answers are correct in the practice exam chapters, as is done on the real exam. Both practice exam chapters are designed to be taken within 90 minutes and have a passing score of 68 percent. That means you need to answer at least 34 questions correctly. Remember not to take the practice exam until you feel ready. There are only so many practice exams available, so you don't want to waste a fresh attempt.

While an objective-based chapter can be completed over the course of a few days, the practice exam chapters were each designed to be completed in one sitting. You should try simulating the exam experience as much as possible. This means setting aside 90 minutes, grabbing a whiteboard or scrap paper, and answering every question even if you aren't sure of the answer. Remember, there is no penalty for guessing, and the more incorrect answers you can eliminate, the better.

Reviewing Exam Changes

Oracle does change the number of questions, passing score, and time limit from time-to-time. Jeanne and Scott maintain a blog that tracks updates to the real exams, as quickly as Oracle updates them.

www.selikoff.net/ocp17-pt

We recommend you read this page before you take the real exam, in case any of the information has changed since the time this book was published. Although less common, Oracle does add, remove, or reword objectives. When this happens, we offer free supplemental material on our website as blog entries.

Need More Help Preparing?

Both of the authors are moderators at CodeRanch.com. This site is a quite large and active programming forum that is friendly toward Java beginners. It has a forum just for this exam called *Programmer Certification*.

www.coderranch.com/f/24

As you read the book, feel free to ask your questions in either of those forums. It could be that you are having trouble compiling a class or are just plain confused about something. You'll get an answer from a knowledgeable Java programmer. It might even be one of us!

Bonus Content

This book has a web page that provides all the questions in this book using Wiley's interactive online test engine.



You can link to this web page from www.wiley.com/go/sybextestprep.

Like all exams, the Java 17 Oracle Certified Professional (OCP) certification from Oracle is updated periodically and may eventually be retired or replaced. At some point after Oracle is no longer offering this exam, the old editions of our books and online tools will be retired. If you have purchased this book after the exam was retired, or are attempting to register in the Sybex online learning environment after the exam was retired, please know that we make no guarantees that this exam's online Sybex tools will be available once the exam is no longer available.

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Chapter 1



Handling Date, Time, Text, Numeric and Boolean Values

THE OCP EXAM TOPICS COVERED IN THIS PRACTICE TEST INCLUDE THE FOLLOWING:

- ✓ Handling date, time, text, numeric and boolean values
 - Use primitives and wrapper classes including Math API, parentheses, type promotion, and casting to evaluate arithmetic and boolean expressions
 - Manipulate text, including text blocks, using String and StringBuilder classes
 - Manipulate date, time, duration, period, instant and time-zone objects using Date-Time API

1. How many of the `Duration`, `LocalDateTime`, and `LocalTime` classes have the concept of a time zone?

- A. None
- B. One
- C. Two
- D. Three

2. How many lines does this print?

```
System.out.print("")  
    "ape"  
    "baboon"  
    "gorilla"  
    "");
```

- A. Three
- B. Four
- C. Five
- D. The code does not compile.

3. Which of the following are not valid variable names? (Choose two.)

- A. _
- B. _blue
- C. 2blue
- D. blue\$
- E. Blue

4. Which class has a `getSeconds()` method?

- A. Only the `Duration` class
- B. Only the `Period` class
- C. Both the `Duration` and `Period` classes
- D. Neither class

5. Most of the United States observes daylight saving time on March 13, 2022, by moving the clocks forward an hour at 2 a.m. What does the following code output?

```
var localDate = LocalDate.of(2022, 3, 13);  
var localTime = LocalTime.of(1, 0);  
var zone = ZoneId.of("America/New_York");  
var z = ZonedDateTime.of(localDate, localTime, zone);  
  
var offset = z.getOffset();  
var duration = Duration.ofHours(3);
```

```
var later = z.plus(duration);

System.out.println(later.getHour() + " "
    + offset.equals(later.getOffset()));
```

- A. 4 false
B. 4 true
C. 5 false
D. 5 true
E. 6 false
F. 6 true
G. None of the above
6. What is the value of tip after executing the following code snippet?
- ```
int meal = 5;
int tip = 2;
var total = meal + (meal>6 ? tip++ : tip--);
```
- A. 1  
B. 2  
C. 3  
D. 7  
E. None of the above
7. What does the following output?
- ```
int year = 1874;
int month = Month.MARCH;
int day = 24;
LocalDate date = LocalDate.of(year, month, day);
System.out.println(date.isBefore(LocalDate.now()));
```
- A. false
B. true
C. The code does not compile.
D. The code compiles but throws an exception at runtime.
8. What is the output of the following?
- ```
12: var b = "12";
13: b += "3";
14: b.reverse();
15: System.out.println(b.toString());
```

- A. 12  
B. 21  
C. 123  
D. 321  
E. The code does not compile.
9. What is the output of the following?
- ```
5: var line = new StringBuilder("-");  
6: var anotherLine = line.append("-");  
7: System.out.print(line == anotherLine);  
8: System.out.print(" ");  
9: System.out.print(line.length());
```
- A. false 1
B. false 2
C. true 1
D. true 2
E. It does not compile.
10. Given that daylight saving time starts on March 13, 2022, at 2 a.m. and clocks jump from 1:59 a.m. to 03:00 a.m., which of the following can fill in the blank so the code doesn't throw an exception?
- ```
var localDate = LocalDate.of(2022, 3, 13);
var localTime = LocalTime.of();
var zone = ZoneId.of("America/New_York");
var z = ZonedDateTime.of(localDate, localTime, zone);
```
- A. 2, 0  
B. 3, 0  
C. Either of the above will run without throwing an exception.  
D. Both of these will cause an exception to be thrown.
11. Which statement is true of this text block?
- ```
var block = """  
  
    green  
    yellow  
""";
```
- A. There is only essential whitespace.
B. There is only incidental whitespace.
C. There is both essential and incidental whitespace.
D. The code does not compile.

12. What are the return types of `cat`, `moose`, and `penguin`, respectively?

```
var cat = Math.ceil(65);
var moose = Math.max(7,8);
var penguin = Math.pow(2, 3);
```

- A.** double, double, double
- B.** double, int, double
- C.** double, int, int
- D.** int, double, double
- E.** int, int, double
- F.** int, int, int

13. What is the result of the following?

```
11: var waffleDay = LocalDate.of(2022, Month.MARCH, 25);
12: var period = Period.of(1, 6, 3);
13: var later = waffleDay.plus(period);
14: later.plusDays(1);
15: var thisOne = LocalDate.of(2023, Month.SEPTEMBER, 28);
16: var thatOne = LocalDate.of(2023, Month.SEPTEMBER, 29);
17: System.out.println(later.isBefore(thisOne) + " "
18:     + later.isBefore(thatOne));
```

- A.** false false
- B.** false true
- C.** true true
- D.** true false
- E.** The code does not compile.

14. Which operators work with one or more boolean types? (Choose three.)

- A.** ^
- B.** ~
- C.** &
- D.** +
- E.** ||
- F.** @

15. What is a possible result of the following?

```
var montyPythonDay = LocalDate.of(2023, Month.MAY, 10);
var aprilFools = LocalDate.of(2023, Month.APRIL, 1);
var duration = Duration.ofDays(1);
```

```
var result = montyPythonDay.minus(duration);
System.out.println(result + " " + aprilFools.isBefore(result));
```

- A. 2023-05-09 false
 - B. 2023-05-09 true
 - C. The code does not compile.
 - D. None of the above.
- 16.** What is the output of the following?
- ```
5: var line = new String("-");
6: var anotherLine = line.concat("-");
7: System.out.print(line == anotherLine);
8: System.out.print(" ");
9: System.out.print(line.length());
```
- A. false 1
  - B. false 2
  - C. true 1
  - D. true 2
  - E. Does not compile
- 17.** How many of these lines contain a compiler error?
- ```
public void pi() {
    byte b = 3.14;
    double d = 3.14;
    float f = 3.14;
    short s = 3.14;
}
```
- A. None
 - B. One
 - C. Two
 - D. Three
 - E. Four
- 18.** In the United States, daylight saving time ends on November 6, 2022 at 02:00 a.m. and we repeat the previous hour. What is the output of the following?

```
var localDate = LocalDate.of(2022, Month.NOVEMBER, 6);
var localTime = LocalTime.of(1, 0);
var zone = ZoneId.of("America/New_York");
var z = ZonedDateTime.of(localDate, localTime, zone);
var offset = z.getOffset();
```