| **Exam Objective** | **Chapter** |
| --- | --- |
| **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** | [**1**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c01.xhtml)**,**[**2**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c02.xhtml)**,**[**4**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c04.xhtml) |
| **Manipulate text, including text blocks, using String and StringBuilder classes** | [**4**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c04.xhtml) |
| **Manipulate date, time, duration, period, instant and time-zone objects using Date-Time API** | [**4**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c04.xhtml) |
| **Controlling Program Flow** |  |
| **Create program flow control constructs including if/else, switch statements and expressions, loops, and break and continue statements** | [**3**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c03.xhtml) |
| **Utilizing Java Object-Oriented Approach** |  |
| **Declare and instantiate Java objects including nested class objects, and explain the object life-cycle including creation, reassigning references, and garbage collection** | [**1**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c01.xhtml)**,**[**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml) |
| **Create classes and records, and define and use instance and static fields and methods, constructors, and instance and static initializers** | [**5**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c05.xhtml)**,**[**6**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c06.xhtml)**,**[**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml) |
| **Implement overloading, including var-arg methods** | [**5**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c05.xhtml) |
| **Understand variable scopes, use local variable type inference, apply encapsulation, and make objects immutable** | [**1**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c01.xhtml)**,**[**6**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c06.xhtml)**,**[**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml)**,**[**8**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c08.xhtml) |
| **Implement polymorphism and differentiate object type versus reference type. Perform type casting, identify object types using instanceof operator and pattern matching** | [**3**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c03.xhtml)**,**[**6**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c06.xhtml)**,**[**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml) |
| **Create and use interfaces, identify functional interfaces, and utilize private, static, and default interface methods** | [**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml)**,**[**8**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c08.xhtml) |
| **Create and use enumerations with fields, methods and constructors** | [**7**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c07.xhtml) |
| **Handling Exceptions** |  |
| **Handle exceptions using try/catch/finally, try-with-resources, and multi-catch blocks, including custom exceptions** | [**11**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c11.xhtml) |
| **Working with Arrays and Collections** |  |
| **Create Java arrays, List, Set, Map, and Deque collections, and add, remove, update, retrieve and sort their elements** | [**4**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c04.xhtml)**,**[**9**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c09.xhtml) |
| **Working with Streams and Lambda expressions** |  |
| **Use Java object and primitive Streams, including lambda expressions implementing functional interfaces, to supply, filter, map, consume, and sort data** | [**10**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c10.xhtml) |
| **Perform decomposition, concatenation and reduction, and grouping and partitioning on sequential and parallel streams** | [**10**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c10.xhtml)**,**[**13**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c13.xhtml) |
| **Packaging and deploying Java code and use the Java Platform Module System** |  |
| **Define modules and their dependencies, expose module content including for reflection. Define services, producers, and consumers** | [**12**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c12.xhtml) |
| **Compile Java code, produce modular and non-modular jars, runtime images, and implement migration using unnamed and automatic modules** | [**12**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c12.xhtml) |
| **Managing concurrent code execution** |  |
| **Create worker threads using Runnable and Callable, manage the thread lifecycle, including automations provided by different Executor services and concurrent API** | [**13**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c13.xhtml) |
| **Develop thread-safe code, using different locking mechanisms and concurrent API** | [**13**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c13.xhtml) |
| **Process Java collections concurrently including the use of parallel streams** | [**13**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c13.xhtml) |
| **Using Java I/O API** |  |
| **Read and write console and file data using I/O Streams** | [**14**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c14.xhtml) |
| **Serialize and de-serialize Java objects** | [**14**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c14.xhtml) |
| **Create, traverse, read, and write Path objects and their properties using java.nio.file API** | [**14**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c14.xhtml) |
| **Accessing databases using JDBC** |  |
| **Create connections, create and execute basic, prepared and callable statements, process query results and control transactions using JDBC API** | [**15**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c15.xhtml) |
| **Implementing Localization** |  |
| **Implement localization using locales, resource bundles, parse and format messages, dates, times, and numbers including currency and percentage values** | [**11**](https://learning.oreilly.com/library/view/ocp-oracle-certified/9781119864585/c11.xhtml) |