

JAVA SE-11 Developer

Working with Java data types

- Use primitives and wrapper classes, including, operators, parentheses, type promotion and casting
- Handle text using String and StringBuilder classes
- Use local variable type inference, including as lambda parameters

Java Object-Oriented Approach

- Declare and instantiate Java objects including nested class objects, and explain objects' lifecycles (including creation, dereferencing by reassignment, and garbage collection)
- Define and use fields and methods, including instance, static and overloaded methods
- Initialize objects and their members using instance and static initialiser statements and constructors
- Understand variable scopes, apply encapsulation and make objects immutable
- Create and use subclasses and superclasses, including abstract classes
- Utilize polymorphism and casting to call methods, differentiate object type versus reference type
- Create and use interfaces, identify functional interfaces, and utilize private, static, and default methods
- Create and use enumerations

Working with Arrays and Collections

- Use generics, including wildcards
- Use a Java array and List, Set, Map and Deque collections, including convenience methods
- Sort collections and arrays using Comparator and Comparable interfaces

Java Platform Module System

- Deploy and execute modular applications, including automatic modules
- Declare, use, and expose modules, including the use of services

Java I/O API

- Read and write console and file data using I/O Streams
- Implement serialization and deserialization techniques on Java objects
- Handle file system objects using java.nio.file API

Database Applications with JDBC

- Connect to and perform database SQL operations, process query results using JDBC API

Annotations

- Create, apply, and process annotations