Day Wise Agenda – Java

Day	Topic	Sub Topic
Day 1,2,3	1. Introduction to Java	✓ Java History ✓ Java language features ✓ OOP concepts
Day 4,5,6,7,8	2. Java Basics	✓ Java class structure ✓ Create executable java applications ✓ Java naming conventions ✓ Run a java program ✓ Java access modifiers ✓ Methods and Constructors ✓ Control Instructions
Day 9,10,11,12,13,14	3. Encapsulation and Subclassing	✓ Encapsulation: Public and Private Access Modifiers ✓ Making Classes Immutable as Possible ✓ Subclassing ✓ Using super keyword ✓ Overloading Concepts ✓ Single Inheritance
Day 15,16,17,18,19	4. Overriding Methods, Polymorphism and Static Classes	✓ Overriding method ✓ Virtual Method Invocation ✓ Applying Polymorphism ✓ Casting Object Reference ✓ Static Keyword
Day 20,21,22,23,24	5. Abstract and Nested Classes	✓ Defining Abstract Classes ✓ Validating Abstract Classes ✓ Final Keyword ✓ Nested Classes ✓ Enumeration
Day 25,26,27,28,29,30	6. Interfaces and Lambda Expressions	✓ Java Interfaces ✓ Problem Solved by Interfaces ✓ Default Methods in Interface ✓ Static Method in Interface ✓ Extending Interface ✓ Implementing and Extending
Day 30,31,32,33	Assignment 1 and Class Test Chapter 1-6	
Day 34,35,36,37	7. Generics and Collections	✓ Create and use a generic class ✓ Use List, Set, Map, and Queue interfaces ✓ Use Comparator and Comparable interfaces
Day 38,39,40,41,42,43	8. Java Collections and Streams	✓ Collections Streams and Filters ✓ Iterate using forEach methods of Streams and List ✓ Describe Stream interface and Stream pipeline ✓ Filter a collection by using lambda expressions ✓ Use method references with Streams
Day 44,45,46,47,48,49,50	9. Java Stream API	✓ Use peek() and map() methods ✓ Search for data by using search methods of the Stream classes ✓ Use the Optional class ✓ Use Stream data methods and calculation methods ✓ Sort a collection using Stream API

		✓ Save results to a collection using the collect method ✓ Use flatMap() methods in the Stream API
Day 51,52,53,54,55	10. Lambda Built-in Functional Interfaces	✓ Use the built-in interfaces included in the java.util.function package ✓ Use primitive versions of functional interfaces ✓ Use binary versions of functional interfaces ✓ Use the Unary Operator interface
Day 56,57,58,59,60,61	11. Handling Exceptions and Assertions	✓ Create a try-catch block ✓ Exception categories ✓ Use of finally block ✓ Use of throw, throws ✓ Use try-with-resources statement ✓ Custom exceptions ✓ Assertions
Day 62,63,64,65	Assignment 2 and Class Test Chapter 7-11	
Day 66,67,68,69	12. Use Java SE 8 Date/Time API	✓ Create and manage date-based and time-based events ✓ Work with dates and times across timezones ✓ Manage changes resulting from daylight savings including Format date and times values ✓ Define and create and manage date-based and time-based events
Day 70,71,72,73	13. Java I/O Fundamentals	✓ Read and write data from the console ✓ Use classes from java.io package ✓ Serialization and Deserialization ✓ 'transient' keyword
Day 74,75,76,77,78	14. Java File I/O (NIO.2)	✓ Use Path interface ✓ Use Path operations ✓ Use Files class ✓ Use Stream API with NIO.2 ✓ Walk the directory structure
Day 79,80,81,82,83,84,85	15. Concurrency	✓ Operating system task scheduling ✓ Recognizing multithreaded environments ✓ Creating multithreaded solutions ✓ Sharing data across threads ✓ Synchronization and deadlock ✓ Creating Atomic variables ✓ Using Read-Write locks ✓ Thread-safe collections ✓ Concurrent synchronizers ✓ Executors and ThreadPools
Day 86,87,88,89	16. Fork-Join Framework	✓ Need for Fork-Join Framework ✓ Java.util.concurrent.ForkJoinTask<V> ✓ Compute structure ✓ Recommendations
Day 90,91,92,93	17. Parallel Streams	✓ Streams review ✓ Stream pipeline ✓ Using parallel Streams ✓ Embrace statelessness ✓ Avoid statefulness

Day Wise Agenda – Java

Day 94,95,96	18. Building Database Applications with JDBC	✓ Interfaces that make up the core of the JDBC API ✓ Identify the components required to connect to a database ✓ Submit queries and read results from the database
Day 97,98,99	19. Localization	✓ Read and set the locale by using the Locale object ✓ Create and read a Properties file ✓ Build a resource bundle for each locale and load a resource bundle in an application
Day 100,101,102,103	Assignment 3 and Class Test Chapter 12-19	
Day 104,105,106	20. Oracle Cloud	✓ What is Cloud Computing ✓ Cloud Deployment Models ✓ Cloud Service Models
Day 107,108,109	21. Oracle Application Container Cloud Service Overview	✓ Oracle Application Container Cloud Service ✓ Application Container Cloud Architecture
Day 110,111,112,113,114,115,116	OCA and OCP	✓ Mock 1 for OCA ✓ Mock 2 for OCA ✓ Mock 1 for OCP ✓ Mock 2 for OCP
Day 117,118,119,120	Doubt Session	

Note: Schedules are approximately calculated. Actual schedule may vary as per learner's ability.

Average course duration will take approximately 130 classes. Excluding holidays.