

# **Java Certification**

# **Audience Course Java Certification**

The course Java Certification is intended for experienced Java developers who want to prepare themselves for the Java 8 programmer exams <a href="OCA">OCA</a> (Oracle Certified Assciate) and OCP (Oracle Certified Professional).

# **Prerequisites Course Java Certification**

To participate in this course knowledge of and ample experience with object oriented concepts and **Java** programming is required.

# **Realization Training Java Certification**

The course is an exam training in which, apart from theory and demos, various test exams with test questions for the exams are discussed. The theory is interspersed with practical exercises. The course material is in English. The course times are from 9.30 am to 16.30 pm.

# Official Certificate Java

After successful completion of the course attendants receive an official certificate of participation in the Java Certification course.

# Duration: 2 days Open Schedule Java Programmer Certification

# **Content Course Java Certification**

In the course Java Certification participants are prepared for the Java OCA (Oracle Certified Associate) and OCP (Oracle Certified Professional) exam.

# **Exam Training**

The course is an exam training in which the central focus is on the questions that can be asked on these exams. On the basis of test questions and test exams, the subjects that are part of the exams are treated.

### **Special Topics**

Special attention is paid to topics that are often considered difficult such as concurrency and synchronization. As well as to features that have been added in later versions of Java such as lambda's and streams.

### **Language Syntax**

Also discussed are generics, collection classes, database access with JDBC and new I/O. Subjects like declarations and access control, object orientation, assignments and operators, flow control, exceptions and assertions, strings, I/O formatting and parsing, inner classes are also on the program.

# **Custom Content**

Depending on the interest of the participants certain components can be treated with more depth if so desired.

Houten, Amsterdam, Rotterdam, Eindhoven, Zwolle, Online



# **Modules Course Java Certification**

Module 1 : Concurrency	Module 2 : Lambda's	Module 3 : Generics
Concurrency Package	Passing Functionality	What are Generics?
Task Scheduling Framework	Lambda Expressions	Type Erasure and Raw Types
Executor Interface	Lambda Syntax	Generics and Subtyping
ExecutorService	Lambda Variable Access	Bounded Type Parameters
Callables and Futures	Lambda Scoping Rules	Wildcards
ScheduledExecutorService	Functional Interfaces	Generics in Collections
Synchronizers	Predicate Interface	ArrayList and LinkedList
Semaphores and Exchanger	Consumer Interface	TreeSet and Hash Set
CountdownLatch	Supplier Interface	HashMap and TreeMap
CyclicBarrier	Function Interface	ArrayDeque objects
Concurrent Collections	UnaryOperator Interface	Comparable and Comparator
BlockingQueue Interface	BinaryOperator Interface	Collections Streams and Filters
Lock Interface	Method References	Iteration using forEach
Reentrant Locks	@FunctionalInterface	Filtering using Lambda's
Atomic Variables	Custom Functional Interfaces	Stream Pipeline
Module 4 : Database Access	Module 5 : Streams	Module 6 : New IO
JDBC Architecture	What are Streams?	What is NIO?
JDBC Drivers and URL's	Lazy Evaluation and Parallelization	Synchronous I/O Processing
Database Connections	Core Stream Methods	Asynchronous I/O Processing
Executing Statements	faurale Managed Filter	
LACCULING Statements	forEach, Map and Filter	Working with Buffers
Querying Databases	findFirst and findAny	Working with Buffers IO Channels
o .		
Querying Databases	findFirst and findAny	IO Channels
Querying Databases Update Statements	findFirst and findAny toArray and collect	IO Channels Selectable Channels
Querying Databases Update Statements Retrieving Results	findFirst and findAny toArray and collect Optional Class	IO Channels Selectable Channels Selectors
Querying Databases Update Statements Retrieving Results Handling Errors	findFirst and findAny toArray and collect Optional Class Limiting Stream Size	IO Channels Selectable Channels Selectors Selection Keys
Querying Databases Update Statements Retrieving Results Handling Errors Prepared Statements	findFirst and findAny toArray and collect Optional Class Limiting Stream Size allMatch and anyMatch	IO Channels Selectable Channels Selectors Selection Keys Character Sets
Querying Databases Update Statements Retrieving Results Handling Errors Prepared Statements Database Metadata	findFirst and findAny toArray and collect Optional Class Limiting Stream Size allMatch and anyMatch Number Specialized Streams	IO Channels Selectable Channels Selectors Selection Keys Character Sets Using Path Class