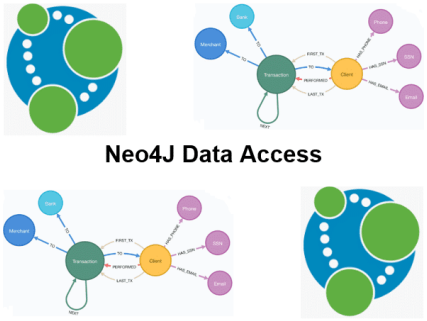
Neo4J Data Access

Duration: 2 days Price: € 1299

Open Schedule



Audience Course Neo4J Data Access

The course Neo4J Data Access is intended for software developers who want to use the Graph Database Neo4J to access, query and modify data.

Prerequisites Course Neo4J Data Access

Experience with software development in a language like Java, C#, JavaScript or Python is required and knowledge of JSON is recommended.

Realization Training Neo4J Data Access

The course has a hands-on character. The theory is treated on the basis of presentation slides and is interchanged with practical exercises. Course times are from 9.30 up and to 16.30.

Certification Neo4J Data Access

After successful completion of the course the participants receive an official certificate Neo4J Data Access.

Content Course Neo4J Data Access

In the course **Neo4J** Data Access the participants learn to store and access data in the Graph database management system Neo4J. Neo4J is the most widely used Graph database and is developed in Java. Neo4J is a NoSQL database, is scalable when processing large amounts of data and supports transactions.

Intro Graph Databases

The course starts with an explanation of the basic concepts of Graph databases in which data is modelled in the form of a graph. The nodes of a graph represent the entities and the relationships between the entities are represented by the associations between the nodes.

Property Graph Model

Next the Property Graph Model in Neo4J and the possible relationship types are discussed. Nodes and relations store data in key-value pairs called properties. Node Labels, Graph Global Operations and In Graph Indexes are also discussed.

Cypher Query Language

Extensive attention is also paid to the Cypher Query Language that is used in Neo4J for data access. Path finding queries, the use of parameters and complex queries are discussed and the Neo4J Data types as well.

Query Clausules and Functions

The various Cypher Query clauses such as CREATE, MERGE and SET are treated and the functions available in the Cypher Query language are also part of the course program.

Neo4J Shell Tools

The course concludes with a discussion of the use of Neo4J in Java and Spring applications, importing data from CSV files, batch inserts and the Neo4J Shell Tools.

Modules Course Neo4J Data Access

Module 1 : Neo4J Intro	Module 2 : Graph Databases	Module 3 : Cypher Queries
What is Neo4J?	Property Graph Model	Path Finding Queries
Key Concepts	Node Labels	MATCH Clause
Neo4J Characteristics	Relationship Types	RETURN Clause
NoSQL Databases	Graph Global Operations	Properties
Key Value Stores	Graph Modeling	Neo4J Data Types
Document Stores	Design for Query Ability	Numerics and Strings
Graphs Databases	In Graph Indexes	Booleans and Arrays
Cypher Queries	Granulate Nodes	Neo4J Browser Usage
Path Queries	Graph Pitfalls	Using REST API
Indexes and Caching	Rich Properties	Query Parameters
Installing Neo4J	Unconnected Graphs	Complex Queries
Extending Neo4J	Dense Node Pattern	Shortest Path
Module 4 : Cypher Clauses	**Module 5 : Cypher Functions**	**Module 6 : Neo4J Applications**
CREATE Clause	Key Functions	Embedded versus REST
CREATE UNIQUE	Mathematical Functions	Using Java API
DELETE and REMOVE	Node Functions	BatchInserter
WHERE Clause	Relationship Functions	Batch Indexing
ORDER BY	count	Import Data from CSV
INDEXES	length	Import Using Cypher
CONSTRAINTS	type	CSV Lint and Papa Parse
LIMIT and SKIP	id	Neo4J Shell Tools
WITH and UNWIND	timestamp	Importing Relationships
UNION and USING	labels	Exporting Data
MERGE and SET	collect	Spring Data and Neo4J

SpiralTrain BV
Standerdmolen 10, 2e verdieping
3995 AA Houten

info@spiraltrain.nl
www.spiraltrain.nl
Tel.: +31 (0) 30 – 737 0661

Locations
Houten, Amsterdam, Rotterdam, Eindhoven, Zwolle, Online