
Course Catalog

Comelio



Table Of Contents

a. Locations	3
1. Ontologies	4
i. Java and Ontologies.....	4
ii. Ontologies using Protégé.....	6
iii. RDF / OWL.....	8
b. Disclaimer	10

a. Locations



Our trainings take place at various locations in the German-speaking countries.

Public trainings:

You can enroll for public trainings at our training centers across Germany like in Berlin, Dresden, Hamburg, München / Munich, Düsseldorf, Frankfurt, and Stuttgart. Not all public trainings will be organized in all cities but you can still book a particular training for your team in one of our training and conference centers.

In Austria you can attend seminars and trainings in Wien / Vienna while we offer training dates in Switzerland in Zürich / Zurich.

On-site trainings:

We have mobile and flexible trainers / lecturers who like to visit you and your team for an on-site training or a training in a conference center or hotel near you.

USA

Chicago	Tel: Fax:
Miami	Tel: +1.305.395.7962 Fax: +1.305.395.7964
New York	Tel: +1.212.380.1181 Fax: +1.305.395.7964

1. Ontologies



(i) Java and Ontologies



Overview

Course ID	2020962
Language	en
Duration	2 Days
Delivery mode	Classroom
Course Type	
Target Group	Programmers, developers
Prerequisites	Java Basics
Method	Lecture with examples and exercises.
Course level	Advanced



Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
06-07 Aug 01-02 Oct 26-27 Nov	30-31 Jul 24-25 Sep 19-20 Nov	20-21 Aug 15-16 Oct 10-11 Dec

Prices plus local taxes.



Course Description

Jena is an open source Semantic Web framework for Java. It provides an API to extract data from and write to RDF graphs. The graphs are represented as an abstract "model". A model can be sourced with data from files, databases, URLs or a combination of these. A Model can also be queried through SPARQL and updated through SPARUL. Furthermore, Jena provides support for OWL (Web Ontology Language). The framework has various internal reasoners and the Pellet reasoner (an open source Java OWL-DL reasoner) can be set up to work in Jena. This training helps Java developers to use Jena in order to create and parse ontologies and semantic data models.



Course Outline

A. RDF and RDF Graphs

Writing and Reading RDF Documents - RDF Graph Navigation - Querying RDF Graphs - Editing and Parsing RDF Graphs

B. OWL and OWL Ontologies

Creating and Parsing OWL Ontologies - Analyzing OWL Classes and Their Properties - Analysis and Creation of Restrictions of OWL Classes

C. Triple Store Storage and SDB

Setting Up and Using Triple Store Storage and Relational Storage Using Jena - Transactions for Read-/Write Operations
- Bulk Storage

D. Querying Ontologies using SPARQL and ARQ

Simple and complex Queries - Filters and Conditions - Grouping - Sub-Queries - Querying Lists - Dynamic Queries
- ARQ Filters



(ii) Ontologies using Protégé



Overview

Course ID	2020173
Language	en
Duration	2 Days
Delivery mode	Classroom
Course Type	
Target Group	Project managers, systems analysts, programmers, developers, consultants
Prerequisites	General XML Kenntnisse
Method	Lecture with examples and exercises.
Course level	Beginning



Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
30-31 Jul 24-25 Sep 19-20 Nov	06-07 Aug 01-02 Oct 26-27 Nov	13-14 Aug 08-09 Oct 03-04 Dec

Prices plus local taxes.



Course Description

The Protégé platform supports modeling ontologies via a web client or a desktop client. Protégé ontologies can be developed in a variety of formats including OWL, RDF(S), and XML Schema. The Web Ontology Language (OWL) is a family of knowledge representation languages for authoring ontologies. The languages are characterised by formal semantics and RDF/XML-based serializations for the Semantic Web and applications using a complex data model. This training explains both the use of the Protégé software as well as the grammar and structure of OWL.



Course Outline

A. OWL Ontologies using Protégé

(0.75 Days) Classes and Class Hierarchies - Properties and Hierarchies - Relationships- Instanzen - Validation and Inconsistencies – Management of OWL Ontologies in Protégé

B. Querying OWL Ontologies

(0.5 Days) Introduction to SPARQL – Queries using OWL2Query – Simple and Complex Queries

C. Visualization

(0.25 Days) Visualizing Hierarchies using OWLViz – Graphical Representation of Relationships Using OntoGraf - Graph Visualization using NavigOWL – Ontologie-Visualization using SOVA

D. Reasoning in Protégé

(0.25 Days) Reasoning and Inference using HermiT - Detecting Differences between Ontologies using LogDiffViz

E. Import and Export

(0.25 Days) UML-Export using OWL2UML – Documentation using OWLDoc



(iii) RDF / OWL



Overview

Course ID	2020968
Language	en
Duration	2 Days
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	XML basics
Method	Lecture with examples and exercises.
Course level	Advanced



Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
13-14 Aug 08-09 Oct 03-04 Dec	20-21 Aug 15-16 Oct 10-11 Dec	30-31 Jul 24-25 Sep 19-20 Nov

Prices plus local taxes.



Course Description

The Resource Description Framework (RDF) is a family of World Wide Web Consortium (W3C) specifications originally designed as a metadata data model. It has come to be used as a general method for conceptual description or modeling of information that is implemented in web resources, using a variety of syntax notations and data serialization formats. RDF/XML is a syntax, defined by the W3C, to express and serialize an RDF graph as an XML document. The Web Ontology Language (OWL) is a family of knowledge representation languages for authoring ontologies. The languages are characterised by formal semantics and RDF/XML-based serializations for the Semantic Web. This training presents the main standards RDF, RDF Schema and OWL and shows during hands-on labs how to develop semantic data models.



Course Outline

A. Ontologie und Metaphysik

(0.25 Days) Herkunft und Ursprung ontologischen Denkens - Metaphysik und Ontologie - Von den großen griechischen Denkern bis zur heutigen Philosophie - Einsatz der Ontologie und semantischer Daten(strukturen) in der Softwaretechnik

B. Semantisches Internet

(0.25 Days) Ansätze, Techniken und Anwendungsbeispiele für semantisches Internet - Lokaler Einsatz von Techniken des semantischen Internets in selbst geschriebener Software - Öffnung von Daten zu semantischen Techniken für Austausch und Weiterverarbeitung

C. RDF und RDF Schema

(0.5 Days) Einführung: Einsatzbereiche von Resource Description Framework, Anwendungsbeispiele, Eingliederung in die Dokumentmodellierung und die Modellierung von semantischen Informationen, RDF-Tripel, RDF Data Model und der RDF Graph - Datenstrukturen: Vorgestellter Standard: RDF/XML Syntax Specification und Resource Description Framework (RDF): Concepts and Abstract Syntax, Serialisierung von RDF für XML, Datentypen, Verwendung von RDF/XML in einzelnen Dokumenten oder Blöcken - RDF Schema: Vorgestellter Standard: RDF Semantics - RDF Vocabulary Description Language 1.0: RDF Schema, Elemente, Eigenschaften, Hierarchien, Einschränkungen

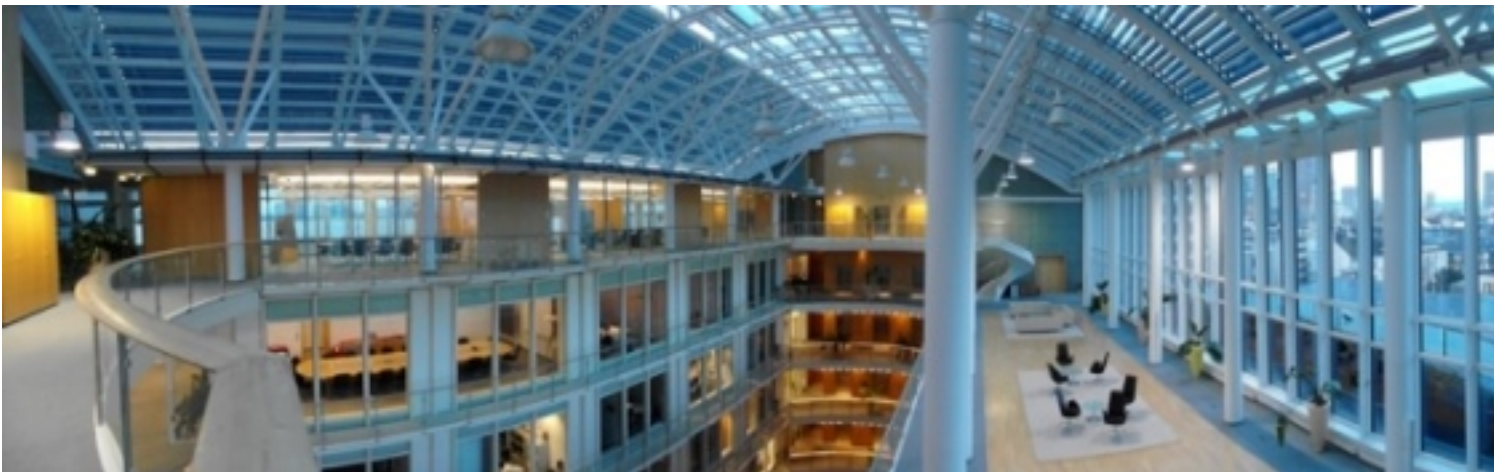
D. OWL (Ontology Web Language)

(0.5 Days) Vorgestellter Standard: OWL Web Ontology Language Overview und OWL Web Ontology Language Guide - Ebenen von OWL - Klassen, Eigenschaften, Hierarchien, Datentypen, Beziehungen und erweiterte Ontologie-Definitionen - Einbindung in RDF Schema - Vergleich und Abgrenzung XML Schema

E. Verarbeitung und Abfrage von RDF-/OWL-Daten

(0.5 Days) Auslesen von RDF-Informationen mit Hilfe von XSLT, XPath und XQuery - Abfragesprache SPARQL, SPARQL Query Language for RDF - Alternativen: Einbindung in relationale Datenbanken und Software-APIs

b. Disclaimer



Comelio GmbH
Goethestr. 34
13086 Berlin
Germany

- Tel: +49.30.8145622.00
- Fax: +49.30.8145622.10

- www.comelio.com | [.de](http://www.comelio.com.de) | [.at](http://www.comelio.com.at) | [.ch](http://www.comelio.com.ch)
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