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# Course Catalog

# Comelio



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## 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

## India

Chennai	Tel: +91.44.420.13545 Fax: +91.44.420.13551
Mumbai	Tel: Fax:

## Germany



Goethestraße 34  
13086 Berlin

Tel: +49.30.8145622.00



Dresden

Fax: +49.30.8145622.10

Hotel Elbflorenz  
Rosenstraße 36  
D-01067 Dresden

Ibis Hotel Königstein  
Prager Straße 9  
01069 Dresden

Tel:  
Fax:



Düsseldorf

Regus Business Centre  
Stadttor 1  
D-40219 Düsseldorf

Ecos Office Centre  
Münsterstraße 248  
40470 Düsseldorf

Tel: +49.211.6355642.00  
Fax: +49.211.6355642.09

Therme Erding  
Thermenallee 1-5  
85435 Erding

Erding

Tel:  
Fax:



Frankfurt

Ecos Office Centre  
Mainzer Landstraße 27-31  
60329 Frankfurt

Tel: +49.69.1732068.30  
Fax: +49.69.1732068.39

Wüpper Management Consulting GmbH  
Zimmerstraße 1  
22085 Hamburg



Hamburg

Tel: +49.40.2093499.60  
Fax: +49.40.2093499.69

c/o SSM Rhein-Ruhr GmbH  
Keltenring 2  
82041 München

Comelio GmbH c/o SSM Rhein-Ruhr  
GmbH Keltenring 2-4  
82041 München



München

Tel: +49.89.3815686.00  
Fax: +49.89.3815686.09

Tel:  
Fax:

Münster

Ecos Office Centre  
Liebknechtstraße 33  
70565 Stuttgart

Regus Business Center  
Königstraße 10C  
70173 Stuttgart

Akademie der Diözese  
Rottenburg-Stuttgart  
Tagungszentrum  
Hohenheim Paracelsusstraße  
91  
70599 Stuttgart



Stuttgart

Tel: +49.711.4605127.50  
Fax: +49.711.4605127.59

Tropical Islands  
Tropical-Islands-Allee 1  
15910 Tropical Islands

Tropical Islands

Tel:  
Fax:

## Austria



Wien

Regus Business Centre  
Mariahilfer Straße 123  
1060 Wien

Tel: +43.720.2097.97  
Fax: +43.720.2097.98

## Switzerland



Zürich

Regus Business Centre  
Badenerstrasse 549  
CH-8048 Zürich

Tel: +41.43508.5805  
Fax:

## Netherlands

Amsterdam

Tel:  
Fax:

## Sweden

Stockholm

Tel:  
Fax:

## Norway

Oslo

Tel:  
Fax:

# 1. Ontologies



## (i) Java and Ontologies



### Overview

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



### Course Dates

Amsterdam	Berlin	Chennai
1,350.00 EUR	1.150,00 EUR	32,250.00 INR
27-28 Aug 22-23 Oct 17-18 Dec	17-18 Sep 12-13 Nov	06-07 Aug 01-02 Oct 26-27 Nov
Chicago	Düsseldorf	Frankfurt
1,600.00 USD	1.250,00 EUR	1.250,00 EUR
06-07 Aug 01-02 Oct 26-27 Nov	13-14 Aug 08-09 Oct 03-04 Dec	20-21 Aug 15-16 Oct 10-11 Dec
Miami	Mumbai	New York
1,550.00 USD	32,250.00 INR	1,600.00 USD
30-31 Jul 24-25 Sep 19-20 Nov	30-31 Jul 24-25 Sep 19-20 Nov	20-21 Aug 15-16 Oct 10-11 Dec
Oslo	Stockholm	Wien
15.100,00 NOK	14.100,00 SEK	1.350,00 EUR
06-07 Aug 01-02 Oct 26-27 Nov	06-07 Aug 01-02 Oct 26-27 Nov	06-07 Aug 01-02 Oct 26-27 Nov
		Zürich
		1.600,00 CHF
		06-07 Aug 01-02 Oct 26-27 Nov

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.

**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

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



### Course Dates

Amsterdam	Berlin	Chennai
1,350.00 EUR	1.150,00 EUR	32,250.00 INR
13-14 Aug 08-09 Oct 03-04 Dec	27-28 Aug 22-23 Oct 17-18 Dec	30-31 Jul 24-25 Sep 19-20 Nov
Chicago	Düsseldorf	Frankfurt
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Miami	Mumbai	New York
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06-07 Aug 01-02 Oct 26-27 Nov	06-07 Aug 01-02 Oct 26-27 Nov	13-14 Aug 08-09 Oct 03-04 Dec
Oslo	Stockholm	Wien
15.100,00 NOK	14.100,00 SEK	1.350,00 EUR
30-31 Jul 24-25 Sep 19-20 Nov	30-31 Jul 24-25 Sep 19-20 Nov	30-31 Jul 24-25 Sep 19-20 Nov
		Zürich
		1.600,00 CHF
		30-31 Jul 24-25 Sep 19-20 Nov

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.



**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

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



### Course Dates

Amsterdam	Berlin	Chennai
1,350.00 EUR	1.150,00 EUR	32,250.00 INR
03-04 Sep 29-30 Oct 24-25 Dec	30-31 Jul 24-25 Sep 19-20 Nov	13-14 Aug 08-09 Oct 03-04 Dec
Chicago	Düsseldorf	Frankfurt
1,600.00 USD	1.250,00 EUR	1.250,00 EUR
13-14 Aug 08-09 Oct 03-04 Dec	06-07 Aug 01-02 Oct 26-27 Nov	13-14 Aug 08-09 Oct 03-04 Dec
Miami	Mumbai	New York
1,550.00 USD	32,250.00 INR	1,600.00 USD
20-21 Aug 15-16 Oct 10-11 Dec	20-21 Aug 15-16 Oct 10-11 Dec	30-31 Jul 24-25 Sep 19-20 Nov
Oslo	Stockholm	Wien
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13-14 Aug 08-09 Oct 03-04 Dec	13-14 Aug 08-09 Oct 03-04 Dec	13-14 Aug 08-09 Oct 03-04 Dec
		Zürich
		1.600,00 CHF
		13-14 Aug 08-09 Oct 03-04 Dec

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.



## **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](http://www.comelio.com) | [.de](http://www.comelio.com.de) | [.at](http://www.comelio.com.at) | [.ch](http://www.comelio.com.ch)
- [www.comelio-seminare.com](http://www.comelio-seminare.com)
- [info@comelio.com](mailto:info@comelio.com)
- <https://www.facebook.com/comeliogroup>
- <https://twitter.com/Comelio>