

KAÏNA-COM

TRAINING CATALOGUE

Object Oriented Analysis and Design

Interactive examples are used to encourage the development of OO analysis and design skills



KSEN001 – Object Oriented Analysis and Design

Reference KSEN001

Experience

- Beginner
- Intermediate
- Advanced

Duration Training Program:
• 2 days

Training Method

- I: i-learning, individual training (web-based training)
- V: v-learning, virtual class

C: c-learning, classroom training

KAÏNA-COM

LE CARRÉ HAUSSMANN II,
6 Allée de la Connaissance
77127 Lieusaint - France

Price 1.390,50 € HT

Prerequisite Some knowledge of Object-Oriented programming and/or design is required.

Audience Analysts, designers and programmers who need to use object-oriented analysis and design techniques.

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KSEN001 – Object Oriented Analysis and Design, Continued

Objective

The course presents object oriented (OO) analysis and design. The OO analysis and design stages are looked at separately and the differences explained. Participants are taught to look at objects with care, while design considerations and principles in choosing classes are explained. Design principles are presented in detail.

Since the participants are assumed to have basic OO knowledge, object-oriented concepts are only briefly explained – to “fill in the holes”. UML class diagrams are introduced, as are CRC cards, including holding a CRC workshop session. Interactive examples are used to encourage the development of OO analysis and design skills.

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KSEN001 – Object Oriented Analysis and Design, Continued

Course Contents

Course Contents :

Table 1: KSEN001 - Course Contents

Chapter	Description
Introduction	<ul style="list-style-type: none"> • Object Oriented as a software method • In relationship to other development methods • Why it's so popular
Let's analyze and design	<ul style="list-style-type: none"> • The difference • Exercise • Presenting the solution
Filling in the holes	<ul style="list-style-type: none"> • A closer look at objects • From objects to classes • Abstraction • What is a class • Modeling • UML diagrams • Fundamental terms and ideas • Relationships • Constructors and destructors
OO Analysis	<ul style="list-style-type: none"> • The problem domain • 4+1 development view • Major Principles •
Everything's an Object?!	<ul style="list-style-type: none"> • A closer look • Connection object • Inheritance to define objects? • DB tables and objects

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KSEN001 – Object Oriented Analysis and Design, Continued

Course Contents, continued

Chapter	Description
CRC Cards	<ul style="list-style-type: none">• CRC definition• CRC method• CRC workshop session
OO Design	<ul style="list-style-type: none">• Identifying classes• Class design principles• Using nouns and verbs• Consistency and concept• Considerations in choosing classes
Major Design Principles	<ul style="list-style-type: none">• Principle of selfishness• Consistency• Cohesion• Responsibility• Open-closed• Liskov substitution• Interface segregation• Granularity and packaging
Gang of Four Design Patterns	<ul style="list-style-type: none">• Overview• Creational Patterns• Structural Patterns• Behavioral Patterns

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KSEN001 – Object Oriented Analysis and Design, Continued

Course Contents, continued

Chapter	Description
GRASP Design Patterns/Principles	<ul style="list-style-type: none">• Information expert• Creator• High cohesion• Low coupling• Controller• Polymorphism• Pure fabrication• Indirection• Don't talk to strangers
Let's design again	<ul style="list-style-type: none">• Redesign the first exercise• Discussion
The End	<ul style="list-style-type: none">• Summary• Q&A• Evaluation

