



Advanced Data Modelling

Communication, Consistency and Complexity

Two day workshop
by Alec Sharp

 **AdeptEvents**

- Benefit from the skill and expertise of internationally acclaimed teacher Alec Sharp
- Learn to enforce complex business rules
- Handling interesting structures such as generalization and recursion
- Data modelling in conjunction with other techniques
- Modelling time, history, and time-dependent business rules
- The human side: improving processes and communication skills

The workshop *A Business-oriented Approach to Data Modelling* by Alec Sharp is a natural precursor to this course.

VENUE

Area Utrecht/Hilversum, The Netherlands

TIME

9:30 – 17:00 hours

REGISTRATION

www.adeptevents.nl





Advanced Data Modelling

Communication, Consistency and Complexity

After gaining some practical experience, data modelers encounter situations such as the enforcement of complex business rules, handling recurring patterns, dealing with existing databases or packaged applications, and other issues not covered in introductory data modelling classes. This intense, participative workshop provides approaches for many advanced data modelling situations, as well as techniques for improving communication between data modelers, business analysts, designer/developers, and subject matter experts.

Description

There are experienced data modelers out there who somehow develop accurate and stable models that are actually used, often in non-typical or high-pressure situations. They get the job done without wasted effort, maintain the involvement and respect of the subject matter experts, and – worst of all! – make it look easy. Others modelers might have great technical skills, but fare poorly, maintaining tense relationships with content experts and developers who “just don’t get it,” and watching in dismay as their models are continually undone by “new” requirements. What accounts for the difference? Magic? Luck? Better tools?

No – it’s having a concrete set of frameworks, methods, techniques, scripts, heuristics, and other tools that they draw on to keep the process moving, with everyone engaged, even when complex, difficult situations are encountered. And that’s what we’ll cover in this full, but fun, two-day workshop – specific, repeatable techniques that you can use to drive your data modelling skills to the next level.

Three main themes will be explored:

1. The technical side of data modelling – getting better at modelling difficult, complex situations
2. Developing and using data models in new ways, and in conjunction with other techniques
3. The human side of data modelling – improving processes and communication skills

Topics will be covered with a discussion of the issue, a review of techniques, guidelines and examples, a brief workshop exercise, and a group solution and debriefing. The emphasis is on maximizing the delivery of content while keeping everyone engaged - the workshop has recently been extensively redesigned to focus on the topics that data modelling professionals have continually rated as the most concrete and useful.



Objectives

On workshop completion, participants will be able to spot various advanced situations (listed below in "Course Outline/Topics") as they arise in their own modelling assignments, and deal with them efficiently and effectively.

Course Topics

- Level-setting on terms, concepts, conventions, and structures
- Interesting structures - generalisation and recursion
- Preparing and delivering a data model review presentation
- Modelling time, history, and time-dependent business rules
- Modelling rules on relationships and associations

- Working with higher-level models
- Bridging the "E-R vs. Dimensional" divide – the world's shortest course on dimensional modelling.

Prerequisites

Practical experience with data modelling, for instance, attending our Data Modelling workshop by Alec and/or six months or more of applying the techniques.

Target Audience

Specialist data modelers, data architects, and DBAs who wish to hone their skills. Also business analysts, application developers, and anyone else with substantial data modelling experience who needs additional skills.



ALEC SHARP

Alec Sharp, a senior consultant with Clariteq Systems Consulting, has deep expertise in a rare combination of fields – business analysis and requirements specification, data modelling, strategy development, facilitation, and, of course, business process modelling, analysis, and design. His nearly 35 years experience in hands-on consulting experience, practical approaches and global reputation in model-driven methodologies have made him a sought-after advisor in diverse locations such as Ireland, Illinois and India.

He is also a popular speaker at conferences related to Business Process Management, Business Analysis, and Data Management, where he mixes content and insight with lightness and humor. His many acclaimed presentations include "The Lost Art of Conceptual Modelling," "The Human Side of Data Modelling," "Getting Traction for 'Process' - What the Experts Forget," "Mind the Gap! - Integrating Process, Requirements, and Data Modelling," and "Adventures in Reverse Engineering - What You've Got and Why You Do Not Like It." During Enterprise Data World 2010 Alec Sharp received DAMA's prestigious Professional Achievement Award, a global award given to one professional a year for contributions to the Data Management profession. In addition, Alec was the highest-rated speaker at many events including the 2012 and 2013 Building Business Capability conferences, and the 2014 Enterprise Data World conference. Alec literally wrote the book on business process modelling - he is

the author of the second edition of "Workflow Modeling: Tools for Process Improvement and Application Development." (Artech House, 2009) The book is popular with professionals in the field of process improvement, business analysts, and consultants, is a continuing bestseller in the area of business process improvement, and is widely used as an MBA textbook. The completely rewritten second edition was published in 2009. In addition, his column "A Practitioner's Perspective" is published four times per year on BPTrends.com.

Alec's popular workshops on Working With Business Processes, Data Modelling (both for beginners and advanced,) Requirements Modelling (with Use Cases and Business Services,) and Essentials of Facilitation for Business Analysts, take place at the world's best-known organisations. His sessions are practical, energetic, and fun - with many participants evaluating them "best training I've ever had."



Course description

Level-setting on terms, concepts, conventions, and structures

- Conventions for the essential components: entities, relationships, attributes, and identifiers
- Effective naming and definition
- Basic attribute patterns – handling multi-valued, redundant, and constrained attributes
- More attribute patterns – non-atomic, semantically overloaded, and derived attributes
- Three attributes that always need a qualifier, and seven entity names to avoid
- E-R Diagramming – symbol sets and their problems, rules for readability and comprehension
- Three types of data models before the physical database – contextual, conceptual, and logical

Interesting structures

- Generalisation (with and without subtyping) – when to use it, and when not to
- Guidelines for using recursive relationships
- Generalisation and recursion working hand-in-hand as a cure for literalism and difficult rules
- Recognizing lists, trees, and networks, and modelling them with recursive relationships
- Staying clear on generalisation vs. roles, states, and aggregation
- Dealing with reference data, the “types vs. instances” problem, and generic reference structures
- Vector modelling – entity or attribute?

Preparing and delivering a data model review presentation

- Context – your audience, and why the model matters to them
- It’s a story, not a data model! Building a storyboard
- Five key techniques for presenting data models or other technical subjects
- The mechanics of the data model review presentation
- A demonstration

Modelling time, history, and time-dependent business rules

- Historical vs. audit data, and when to show them on a data model
- “Do you need history?” – how to tell when your client is misleading you
- Four variations on capturing history in a data model
- Modelling time – special considerations for recording past, present, and future values
- Seven questions you should always ask when a date range appears
- Risk and compliance – why we need “as-of reporting” and how to model data corrections

Modelling rules on relationships and associations

- Using multi-way associations to handle complex rules
- “Use your words” – how assertions, scenarios, and other techniques will improve your modelling
- Associative entities – circular relationships, shared parentage, and other issues
- Alternatives for modelling constraints across relationships
- Advanced normal forms – how to quickly recognize potential 4NF and 5NF issues

Working with higher-level models

- Contextual, conceptual, logical models – what they are, who they’re for, when we need them
- Definitions for each type of model, and common sources of confusion
- Avoiding the “deep dive into detail” – a three-phase method for data modelling
- How to start a large project with a contextual data model
- Guidelines for staying at the conceptual level, and how to tell when you’ve gone too far

Bridging the “E-R vs. Dimensional” divide – the world’s shortest course on dimensional modelling

- The perils of dimensional modelling without understanding the underlying E-R model
- Spotting facts and dimensions – the relationship between dimensional models and E-R models
- Saving time – building a first-cut dimensional model from an ER model

Information

DATE AND TIME

The workshop will take place twice a year, in Spring and Fall, with the exact date and time available on our website. The programme starts at 9:30 am and ends at 5:00 pm on both days. Registration commences at 8.30 am and we recommend that you arrive early.

VENUE

Adept Events works with several accommodations in the area of Utrecht/Hilversum. Once the accommodation is confirmed, the information will be visible on the website. Please check the website prior to your departure.

HOW TO REGISTER

Please register online at www.adeptevents.nl. For registering by print, please scan the completed registration form and send this to customerservice@adeptevents.nl. You can also fax the completed form to +31 (0)172 742680. We will confirm your registration and invoice your company by e-mail therefore please do not omit your e-mail address when registering.

REGISTRATION FEE

Taking part in this two-day workshop will only cost € 1305,- when registering 30 days beforehand and € 1450,- per person afterwards (excl. 21% Dutch VAT). This also covers documentation, lunch, tea/coffee.

If you register for the workshop *A Business-oriented Approach to Data Modelling* by Alec Sharp at the same time, you will receive discount and pay € 2479.50 for both workshops and € 2755,- after expiration of the early bird registration.



Members of the DAMA NL, Belux or UK Chapter are eligible for 10 percent discount on the registration fee.

In completing your registration form you declare that you agree with our Terms and Conditions.

Team discounts

Discounts are available for group bookings of two or more delegates representing the same organization made at the same time. Ten percent off when registering 2 – 3 delegates and fifteen percent off for all delegates when registering four or more delegates (all delegates must be listed on the same invoice). This cannot be used in conjunction with other discounts.

All prices are VAT excluded.

PAYMENT

Full payment is due prior to the workshop. An invoice will be sent to you containing our full bank details including BIC and IBAN. Your payment should always include the invoice number as well as the name of your company and the delegate name. For Credit Card payment please contact our office by e-mail mentioning your phone number so that we can obtain your credit card information.

Cancellation Policy

Cancellations must be received in writing at least three weeks before the commencement of the workshop and will be subject to a € 75,- administration fee. It is regretted that cancellations received within three weeks of the workshop date will be liable for the full workshop fee. Substitutions can be made at any time and at no extra charge.

Cancellation Liability

In the unlikely event of cancellation of the workshop for any reason, Adept Events' liability is limited to the return of the registration fee only. Adept Events will not reimburse delegates for any travel or hotel cancellation fees or penalties. It may be necessary, for reasons beyond the control of Adept Events, to change the content, timings, speakers, date and venue of the workshop.

MORE INFORMATION



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IN-HOUSE TRAINING

Would you like to run this course in-company for a group of persons? We can provide a quote for running an in-house course, if you offer the following details. Estimated number of delegates, location (town, country), number of days required (if different from the public course) and the preferred date/period (month).