

Data Modeling Essentials: Capture Business Requirements With Entity Relationship Modeling

Duration

2 days

Instructor

Wayne Little

Class Limit

20 students

Prerequisite

None

Price

On-site

Please contact SPC for pricing (contact information on page 2)

Public Training

\$1,095 (2 days)

*Discount available for early registration

Materials Provided

- Student manual containing the course slides
- Student handouts with class exercises

Good data models are the common language of business application development. They provide a conceptual framework and syntax for capturing and describing requirements about the key business entities (e.g. Customer or Product), their interrelationships and the rules that govern the processes using them.

This provides a shared understanding of the business between the customer and analyst, and facilitates communication and refinement of the requirements. The data model then enables continued communication between the analyst and technical professionals and finally, the data model is transformed into a data base, which serves as a foundation for business applications.

What is a good data model? In a word, one that *communicates*.

This workshop will provide a guided two-day journey in learning how to use data models as a powerful communication tool, while sharing practical tips, traps and checklists. The workshop introduces the concepts, terminology and process of entity-relationship modeling in a hands-on, business-oriented practitioner's perspective.

Special emphasis is given throughout the course in motivating the "why" as much as the how, so that the student will understand and be able to confidently apply the techniques learned.

On workshop completion, participants will be able to:

- Explain what a data model is, why they are so important, and where they fit
- Translate user requirements into appropriate entity-relationship model design structures
- Use both top-down and bottom-up approaches to get started creating a data model
- Recognize and apply basic design patterns and understand the choices involved
- Explain the meaning and steps to normalization in an "unforgettable" way, and follow those steps to get to a normalized entity-relationship model
- Read a data model, and use it to communicate with both technical and non-technical audiences
- Follow a conversation in data-geek-speak (cardinality, surrogate key, etc.); note, actually using the terms in conversation is optional
- Review data models for "goodness" by being able to apply simple validation techniques

TRAINING

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Intended Audience

This workshop is ideal for business analysts and application developers responsible for the analysis and design of any component of an application, including the database, application logic, or user interface. Business managers and professionals needing to understand how data modeling can be used to improve understanding, consistency and accuracy in business terminology, policy, and rules will also benefit.

Instructor

Wayne Little is an independent consultant and owner of Lit Data Solutions, based in Portland, Oregon. Wayne began his IS career as a software developer in 1981; his recent data architecture consulting projects have been delivered to clients including Intel, Flight Dynamics, Egghead, Vector Supply Chain Management, Les Schwab Tires and Hollywood Video. He has also taught database courses for the University of Phoenix.

Over a career of almost 30 years, Wayne has worked in many roles including analysis and design, programming, data architecture, data base administration, system management, consulting and education. He has been data modeling and working with data base systems since 1991.

For more information on this or other SPC Springboard courses, please visit www.spcspringboard.com or e-mail SPC at info@spc.ca

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Outline

- Introduction to data modeling: purposes, context, philosophy, basic concepts & terms
- Data modeling building blocks: entities, relationships, attributes, and keys
- The 3 phases of data modeling: conceptual to logical to physical
- Applying progressive refinement: what, when and why!
- Analysis & requirements: tips and templates
- Tips & techniques for getting the conceptual model started
- The great debate: bottom up or top down?
- Delivering dynamite definitions
- Conceptual to logical: more on attributes, Going deeper in relationships, and keys & foreign keys
- Normalization made unforgettable
- Handy design patterns
- Getting physical: advice from the trenches on moving the logical data model to a physical model – field specs, naming conventions
- Reviewing your models: checklists, and design review tips
- Review & recommended resources

Prerequisites

An understanding of information systems concepts is highly beneficial.



TRAINING

