Logical data modelling in XML

Author: Mihai Rotaru

Date: 1 Dec 2011

Logical data modeling usually occurs largely at a high level, outside the constraints of particular technologies, such as XML or SQL. However, since the resulting data model will ultimately be implemented in one (or more) of the available technologies, the logical data model might be adjusted for the particular computing system on which the physical data model is to be implemented - in this case, XML.

A logical data model consists of three main components: entities, attributes, and relationships (http://web.archive.org/web/20080509063521/http://www.dbmsmag.com/9506d16.html). XML provides a robust platform for implementing entities and attributes, but relationships can be more difficult to express (http://www.tdan.com/view-articles/5538).

The hierarchical structure of XML can be used to convey basic relationships, such as one-to-one and one-to-many; for example, a document called "Modules" can contain one or more "Tutor" elements. This can be thought of as expressing either an one-to-one relationship (if the module only has one tutor), or as one-to-many, if the module contains multiple "Tutor" elements.