Abstract

A Data Warehouse (DW) is a database that stores information oriented to satisfy decision-making requests. DW features are very different from conventional database ones, so that the data models and design strategies for the latter are generally not to be applicable for DW. These differences have motivated the development of new design techniques and strategies.

This work addresses DW logical design. Concretely, we propose a design process for generating the DW relational schema starting from a conceptual multidimensional schema and an integrated source database. The generation is carried out applying schema transformations to the relational shcema of the source database. We propose an algorithm to determine which transformations must be applied, which is based on a set of design rules. The rules involve the conceptual schema, the source database, correspondences between these schemes and design strategies related with performance and storage constraints.

This works includes the prototype of a CASE tool which assists the designer in the construction of a relational DW from a conceptual specification.