

Part 1

Data Models

Part 1 is devoted to the issue of data management architectures. In this part we consider a number of alternative data models. By far the largest chapter is devoted to the relational data model. This is for two reasons. First, because the relational data model is unusual in having a uniform, theoretical foundation. Second, because systems based upon this data model are currently the most popular in commerce and industry.

Two other data models, the hierarchical and network data models, are discussed together because of their close similarity. These data models are normally portrayed as being the historical precursors to the relational data model. A great deal of the so-called 'legacy' database systems used in commerce and industry were built using DBMS conforming to these data models.

Finally, we consider an advanced data model: the object-oriented data model. This model is described as advanced in the sense that it is particularly important because of its ability to capture complex processing within the remit of a data-base system.