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Database Modelling

Relational Databases Basics

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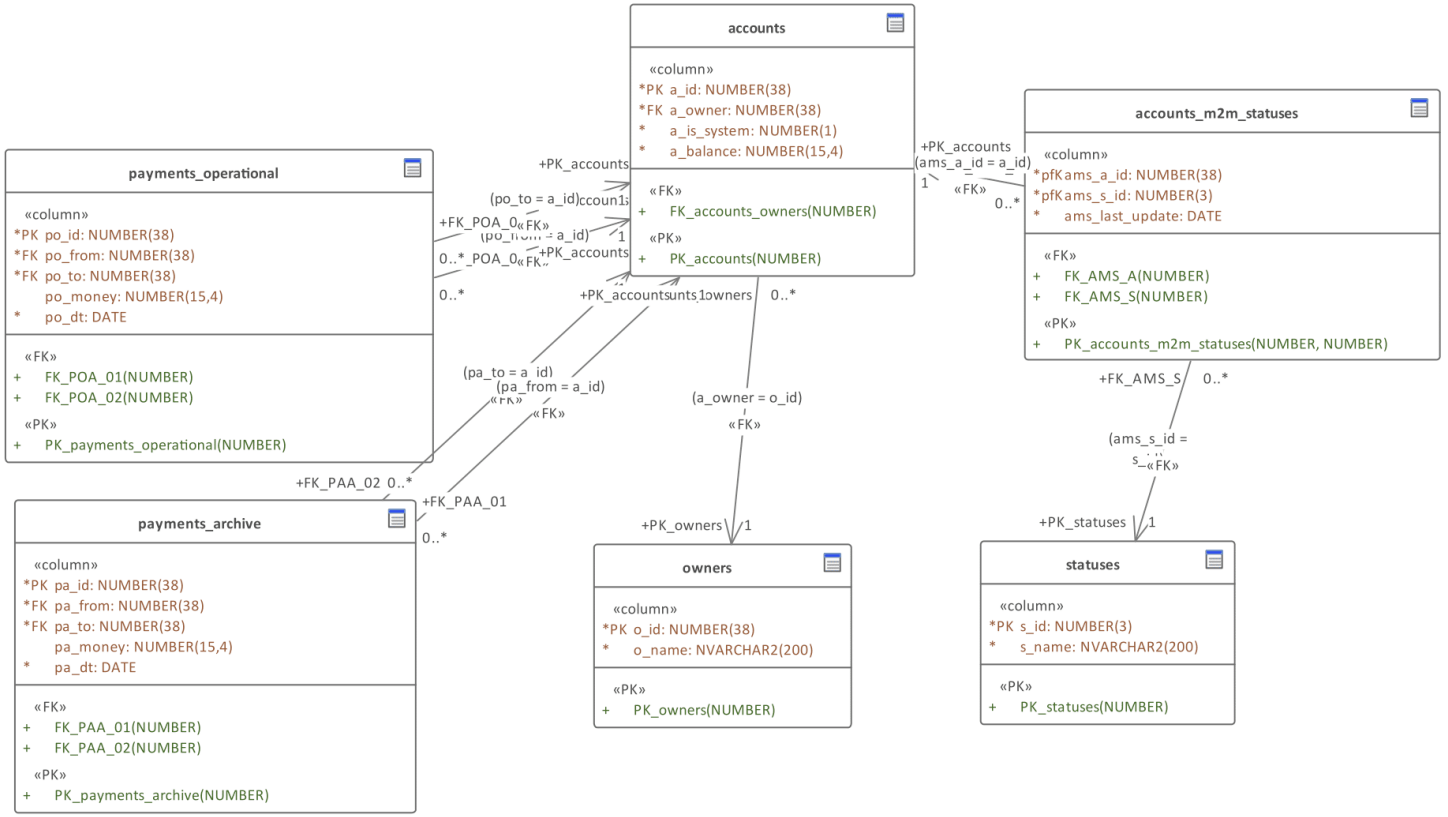
How to create such a schema? What is it for?



Read and remember!

Database Model, Data Model – pattern of structuring data in a database according to the formal descriptions in its information system and according to the requirements of the database management system to be applied.

Levels of Database Modelling

Level		It describes…	It operates…
Logical	Conceptual (infological)	Subject matter regardless database type	Entities, attributes, some relationships
	Logical (datalogical)	Subject matter regarding database type or DBMS	Entities, attributes, relationships, keys, some indexes and views
Physical		Technical aspects regarding DBMS	Entities, attributes, relationships, keys, indexes, views, triggers, stored routines, storage engines, encodings, permissions, etc.

Levels of Database Modelling

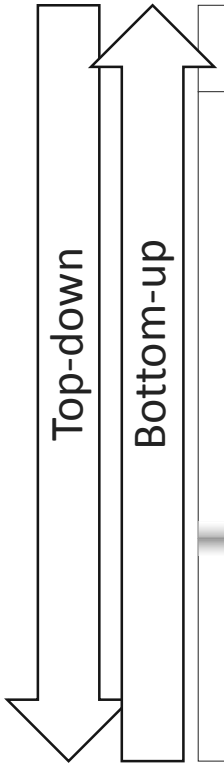
Read and remember!

Conceptual Level – level of consideration at which all aspects deal with the interpretation and manipulation of information describing a particular universe of discourse or entity world in an information system.

Logical Level – level of consideration at which all aspects deal with a database and its architecture, consistent with a conceptual schema and the corresponding information base, but abstract from its physical implementation.

Physical Level – level of consideration at which all aspects deal with the physical representation of data structures and with mapping them on corresponding storage organizations and their access operations in a data processing system.

Top-down and Bottom-up Modelling



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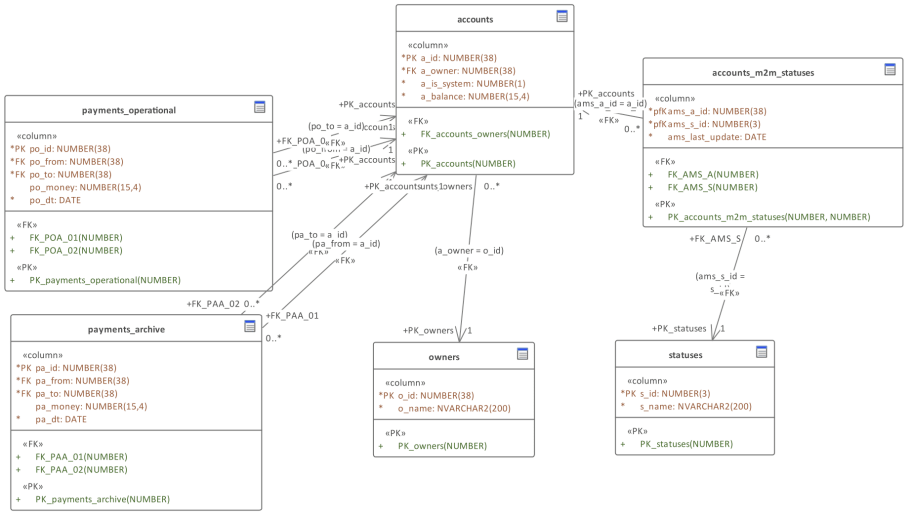
Read and remember!

Relational Model – data model whose structure is based on a set of relations.



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