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Database Modelling in More Details

Relational Databases Basics

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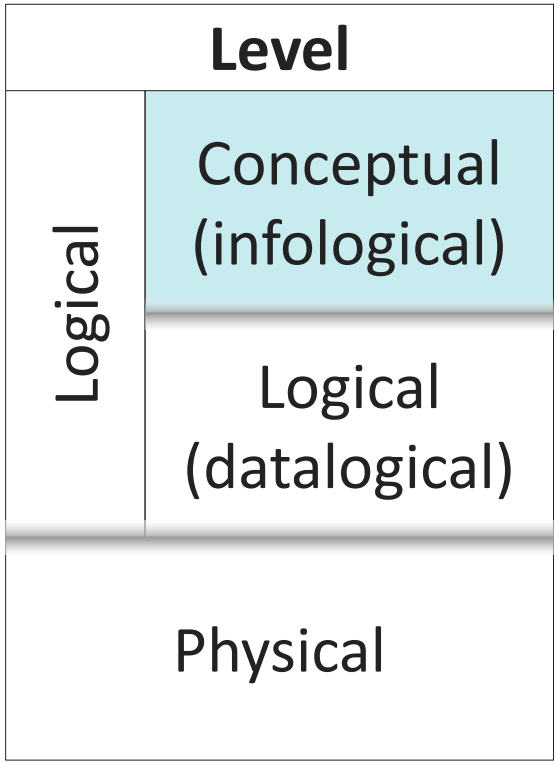
A quick reminder…

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.

Infological level: representation types



Text (lists)

File:
- id;
- owner;
- size;
- name;
- date.

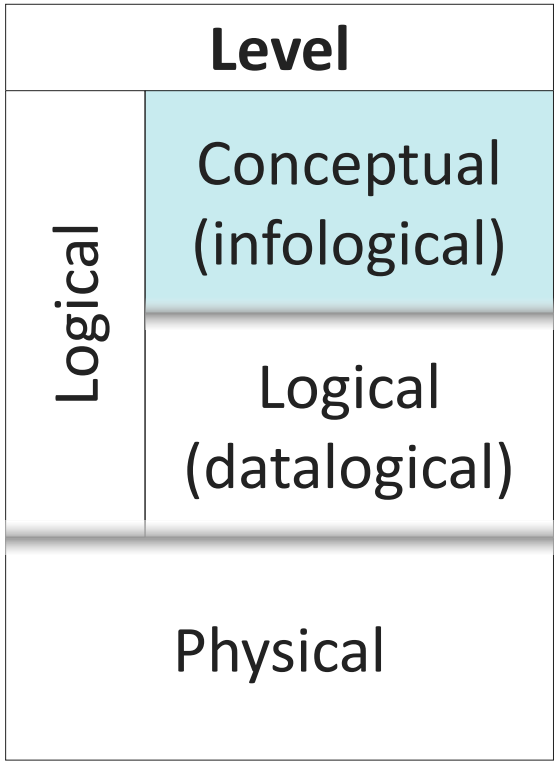
Text (tables)

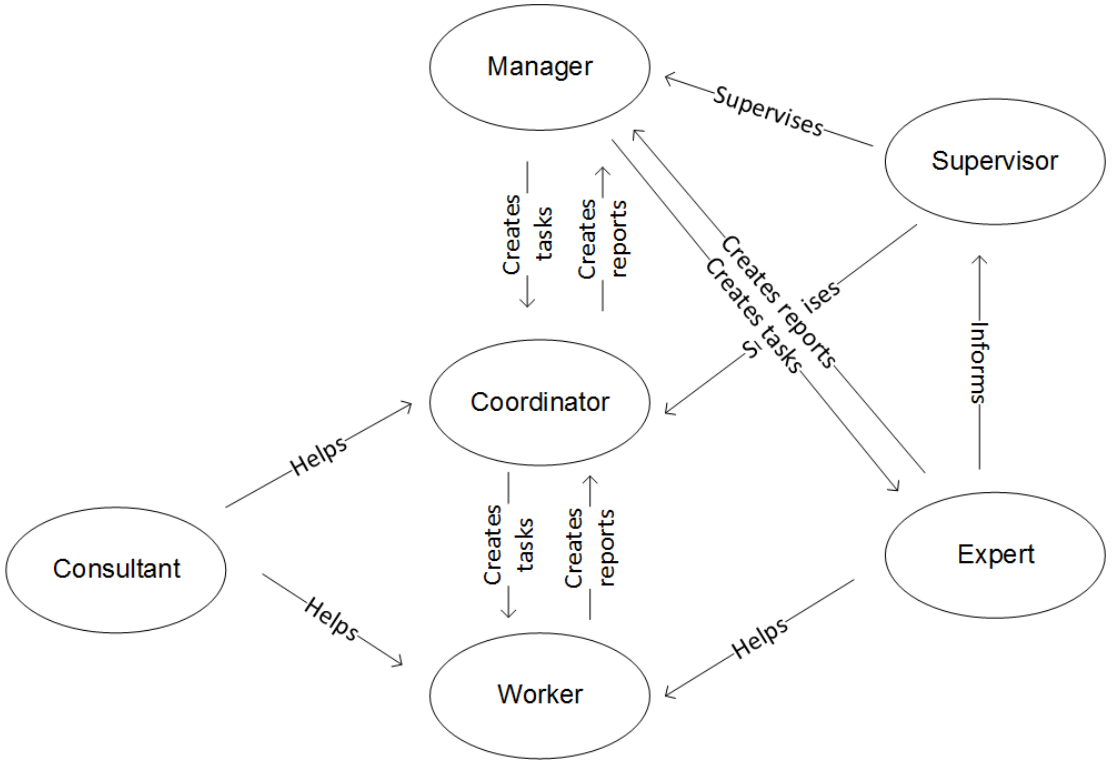
id	owner	size	name	date
integer	integer	integer	string	date

Graphical representation (schemas)

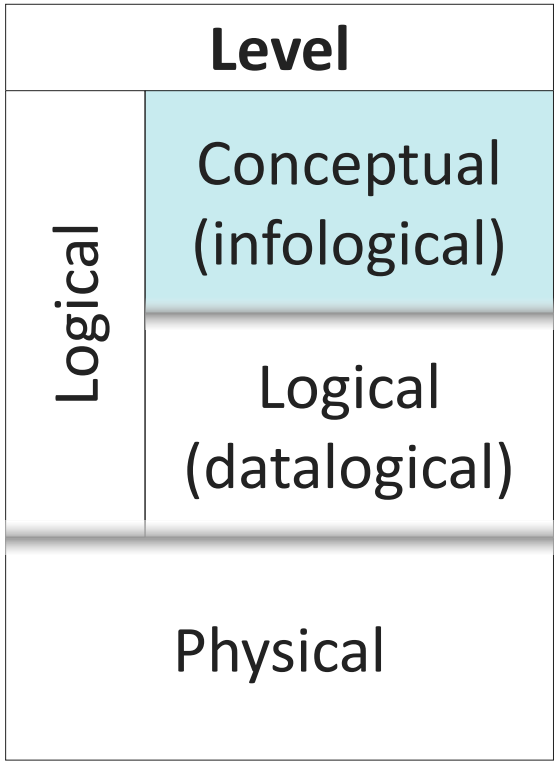
We shall review it in a minute…

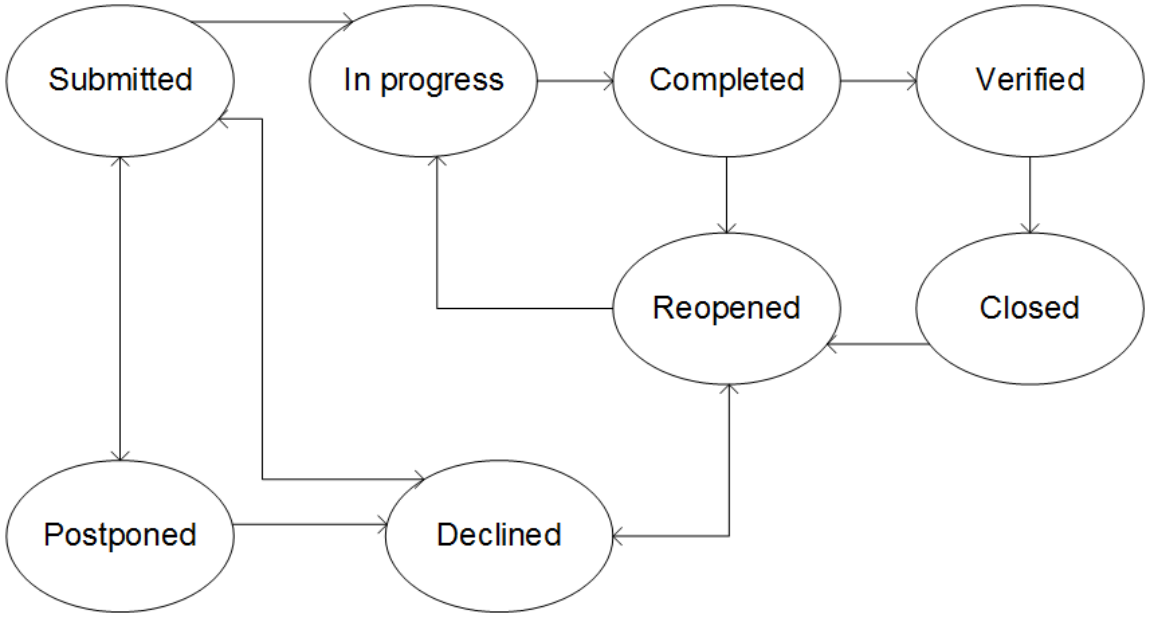
Infological level: semantic model



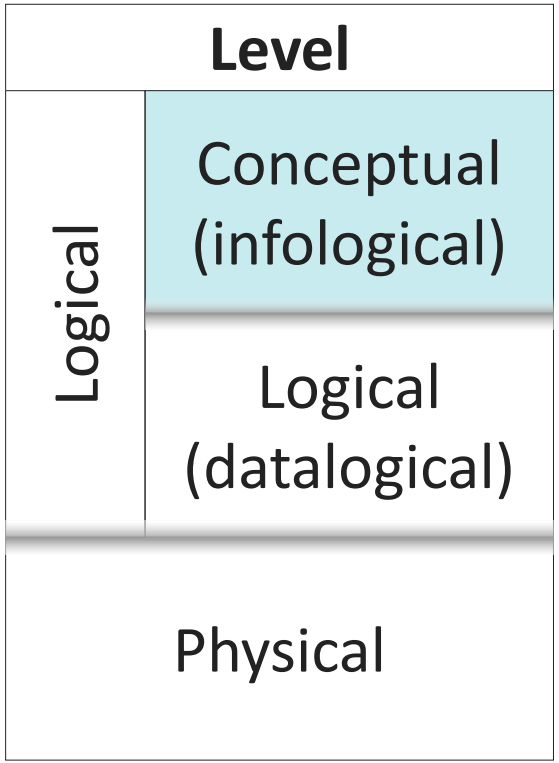


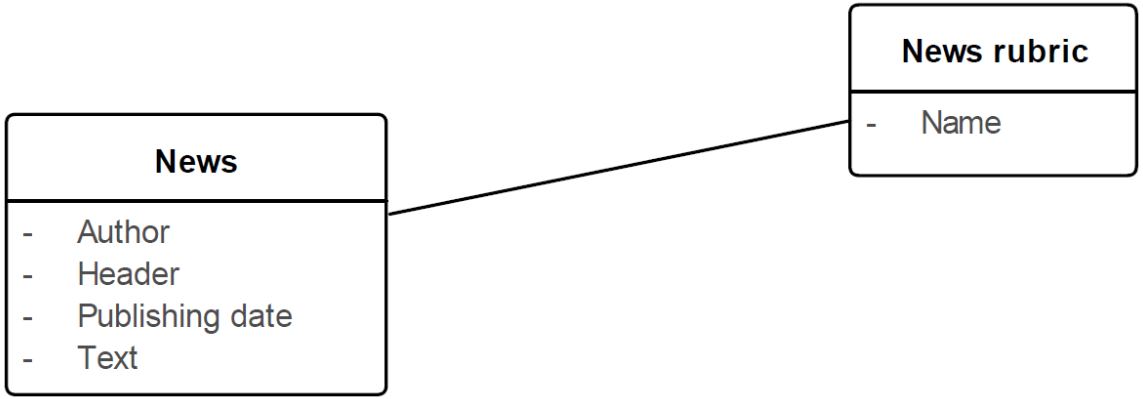
Infological level: graph model





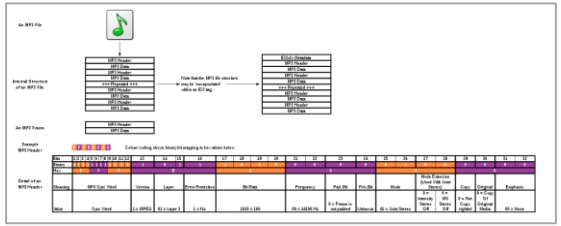
Infological level: entity-relation model



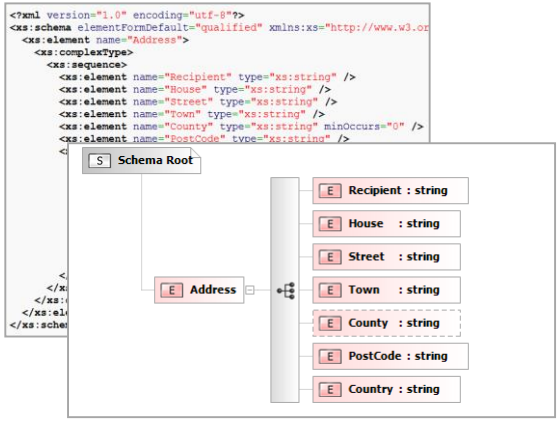


Datalogical level: representation types

Level		
Logical	Conceptual (infological)	
	Logical (datalogical)	Data specifications
Physical		



Special formats

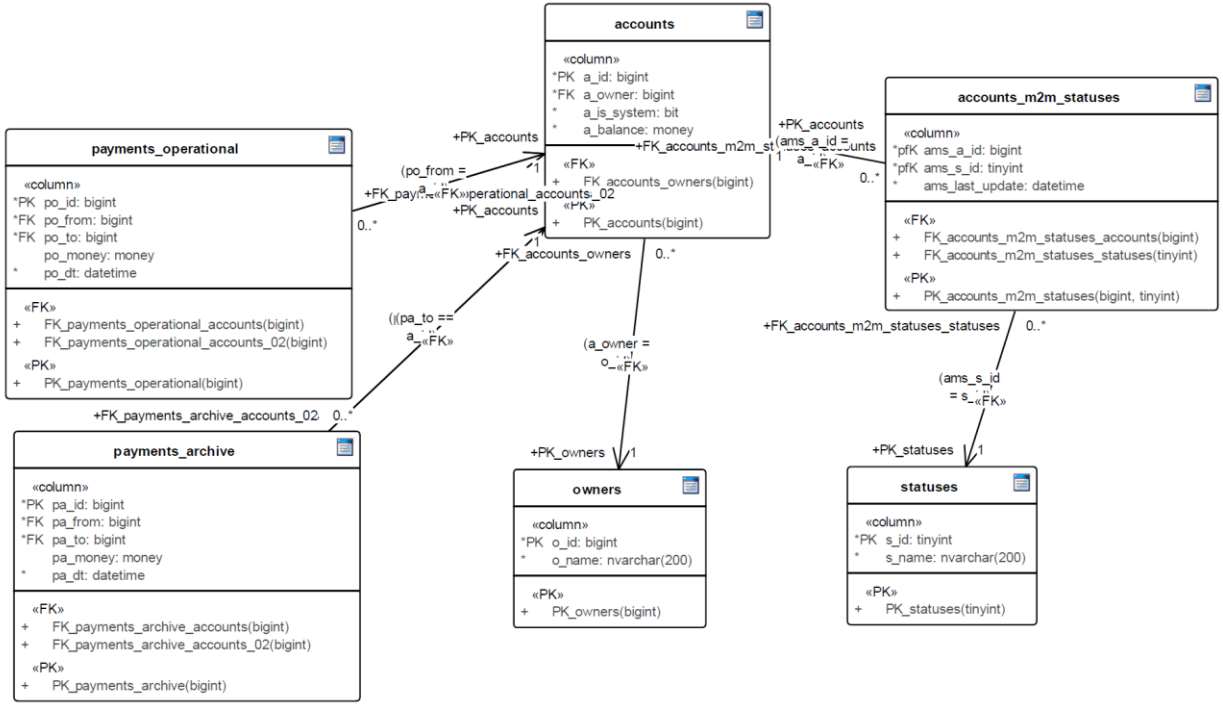


Graphical representation (schemas)

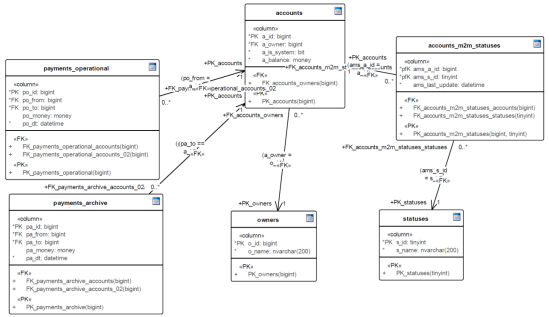
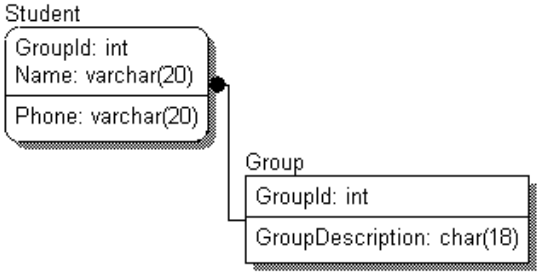
We shall review it in a minute…

Datalogical level: UML schemas

Level	
Logical	Conceptual (infological)
	Logical (datalogical)
	Physical



Physical level: representation types

Level		UML	IDEF1X
Logical	Conceptual (infological)		
	Logical (datalogical)		
Physical		Any other approach	
		This level representation highly depends on DBMS type, DBMS itself, goal to achieve and so on…	

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