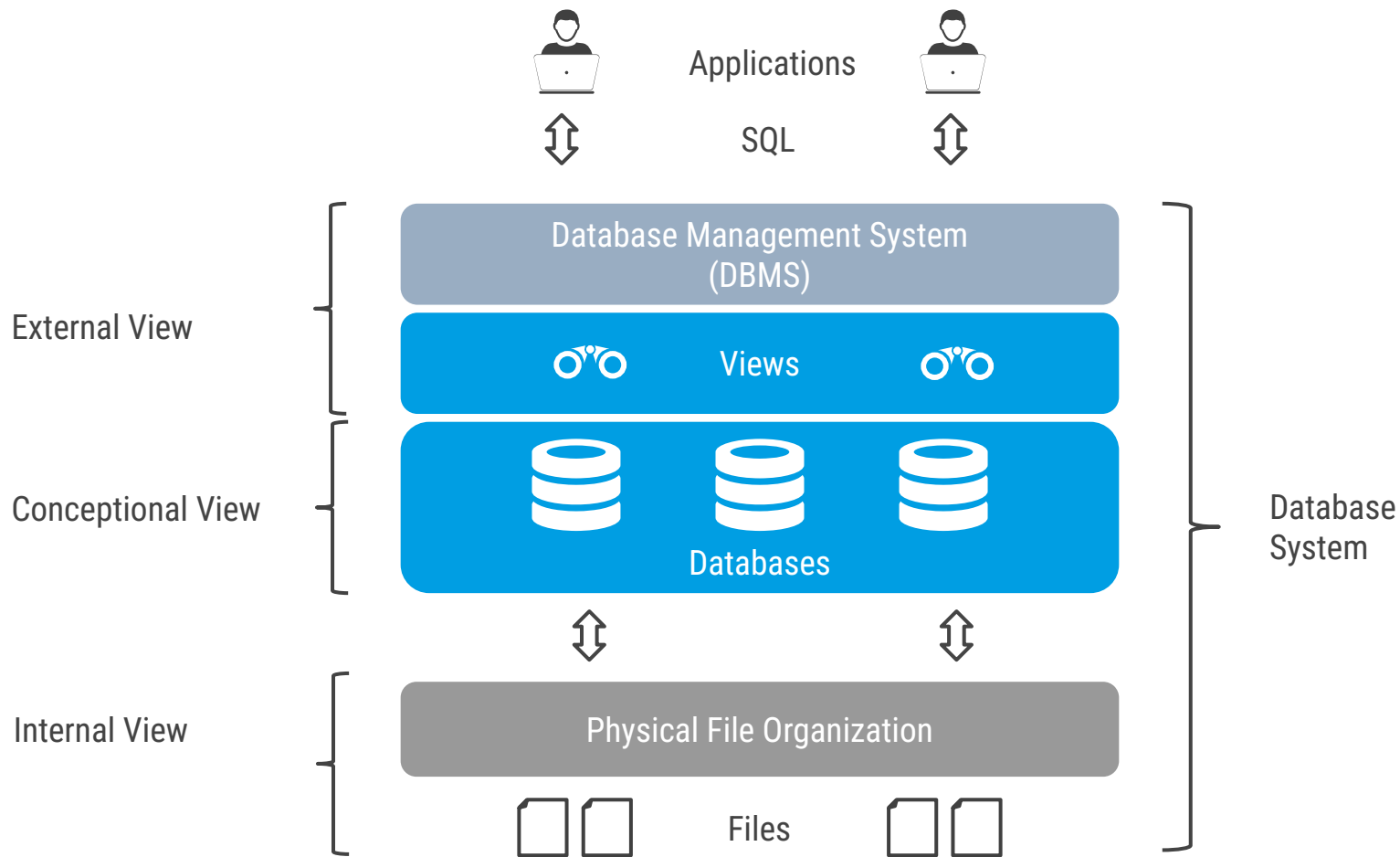


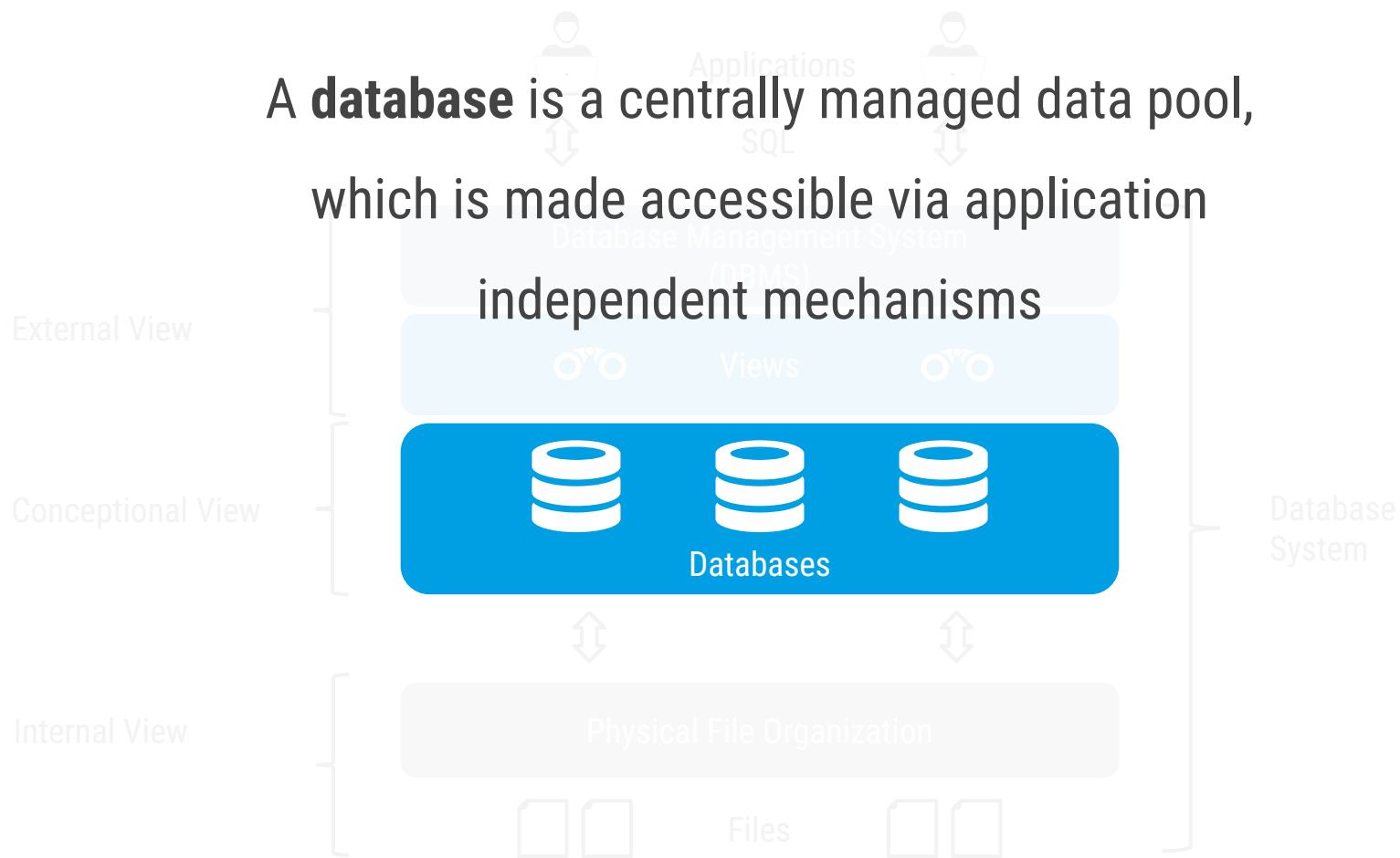


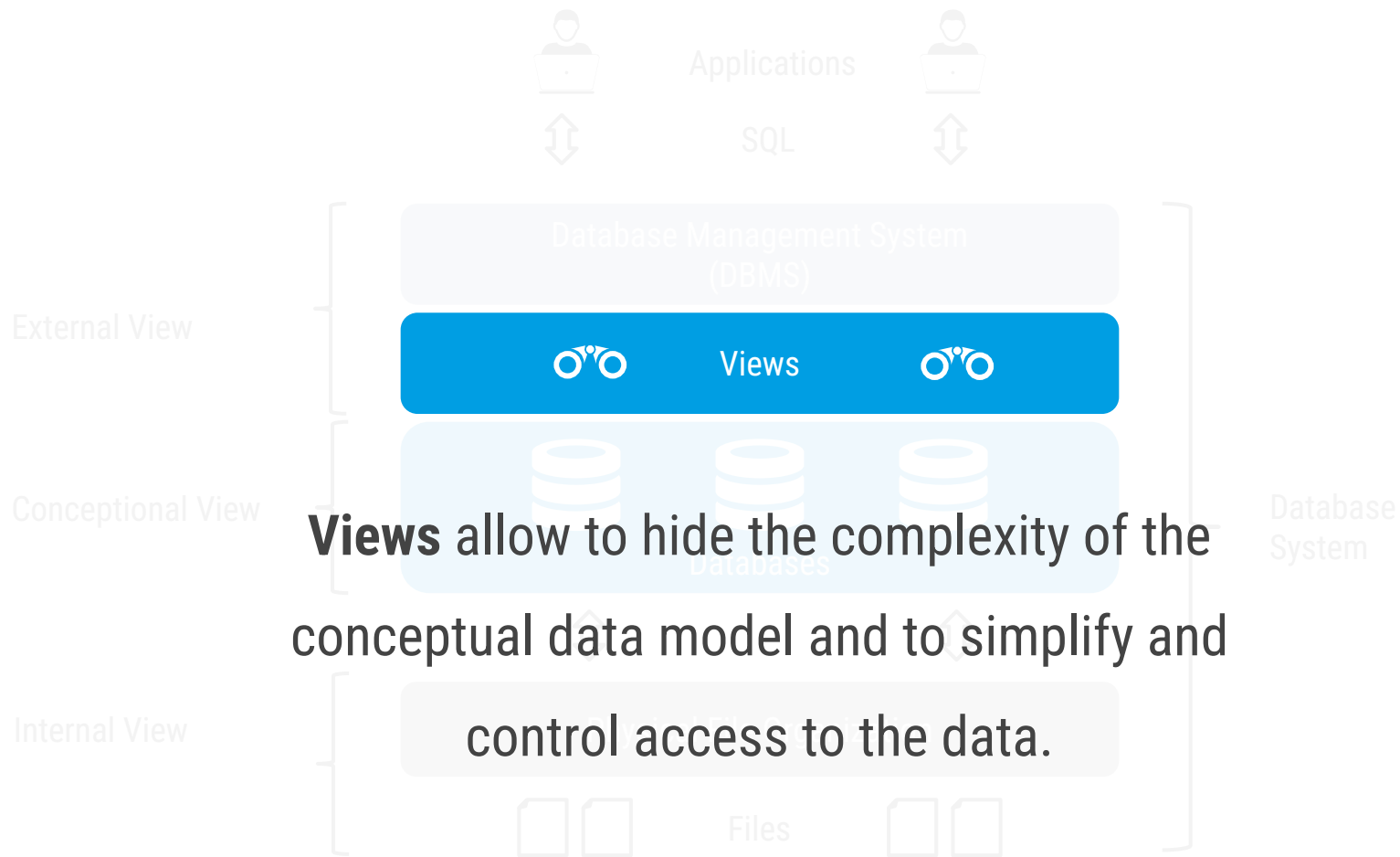
INFORMATION MANAGEMENT

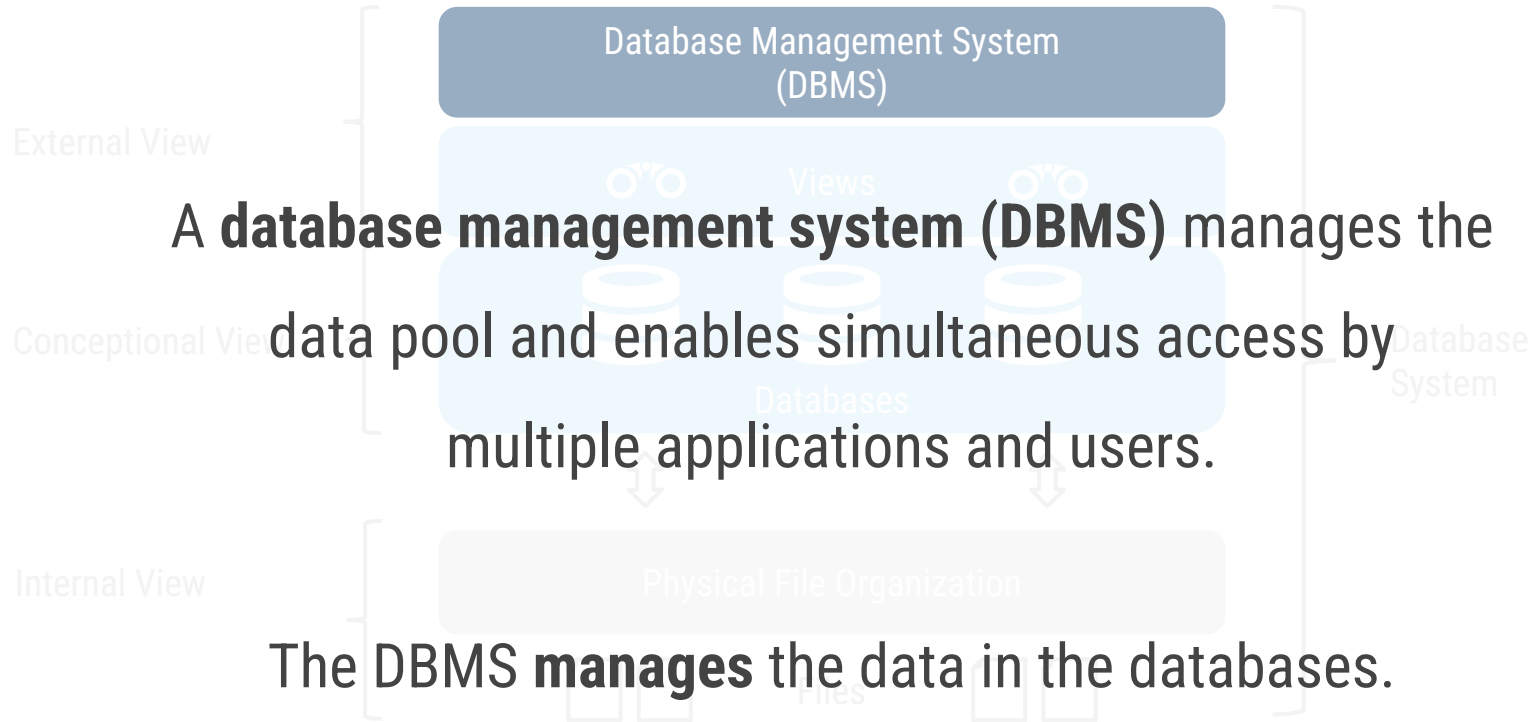
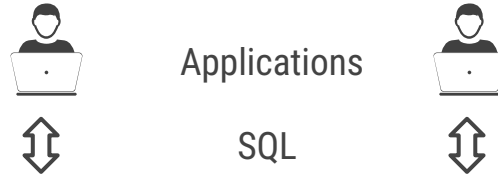
WHAT IS A DATABASE?



A **database** is a centrally managed data pool,
which is made accessible via application
independent mechanisms





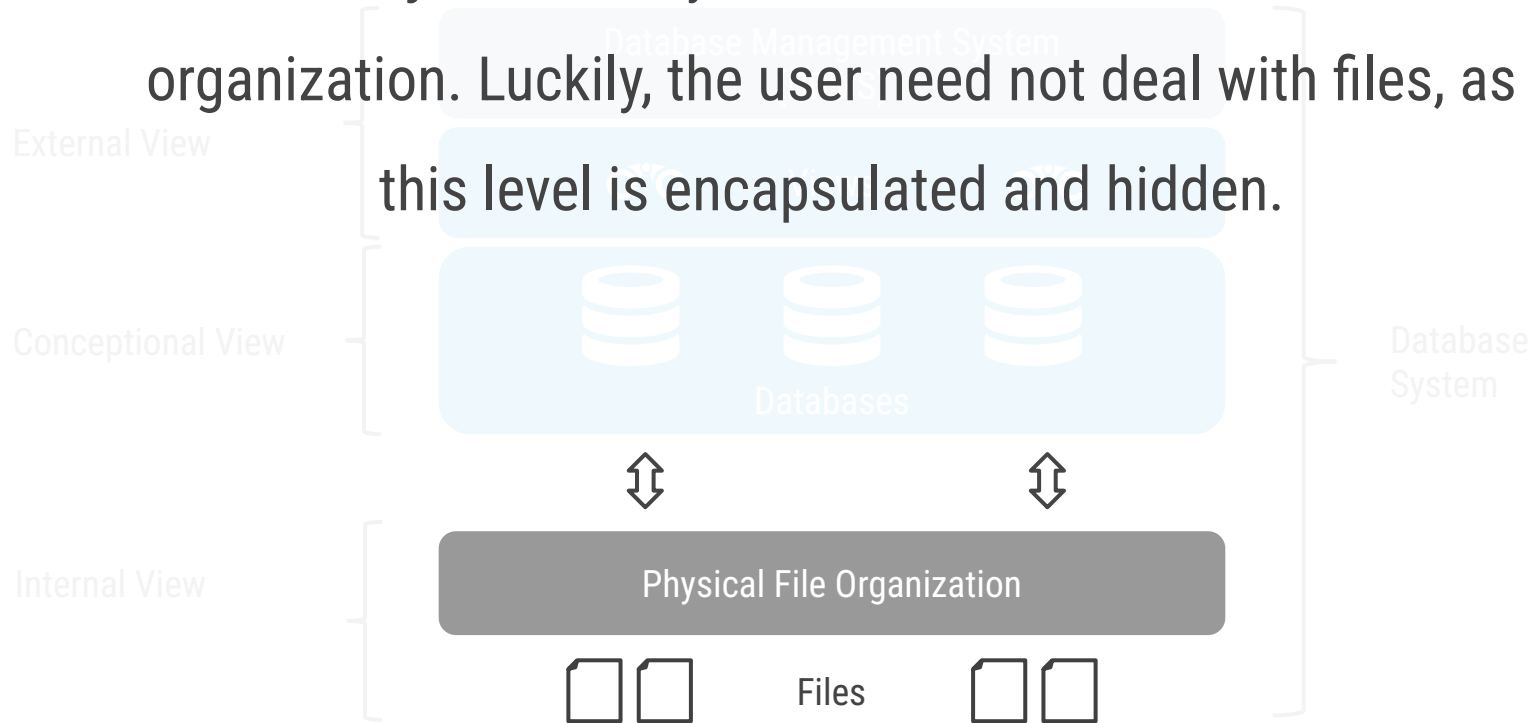


Databases eventually store their data on the computer's

files system. Every database has its internal file

organization. Luckily, the user need not deal with files, as

this level is encapsulated and hidden.



A database system has many goals:

QUERY DATA	Select, Aggregate, Calculate, Filter	➡	SQL
MANAGE DATA	<u>C</u> reate, <u>R</u> ead, <u>U</u> ppdate, <u>D</u> eleate (CRUD)	➡	SQL
DATA INTEGRITY	Consistency, Non-Redundancy, Completeness	➡	Relational Model
ENCAPSULATION	Hide Complexity, Simplify Access	➡	Views
MULTI USER / APP	Read and write the same data simultaneously	➡	Transactions Server-Based
PROTECT DATA	Let only authorized clients access data	➡	User, Rights, and Roles

There are different types of databases:

