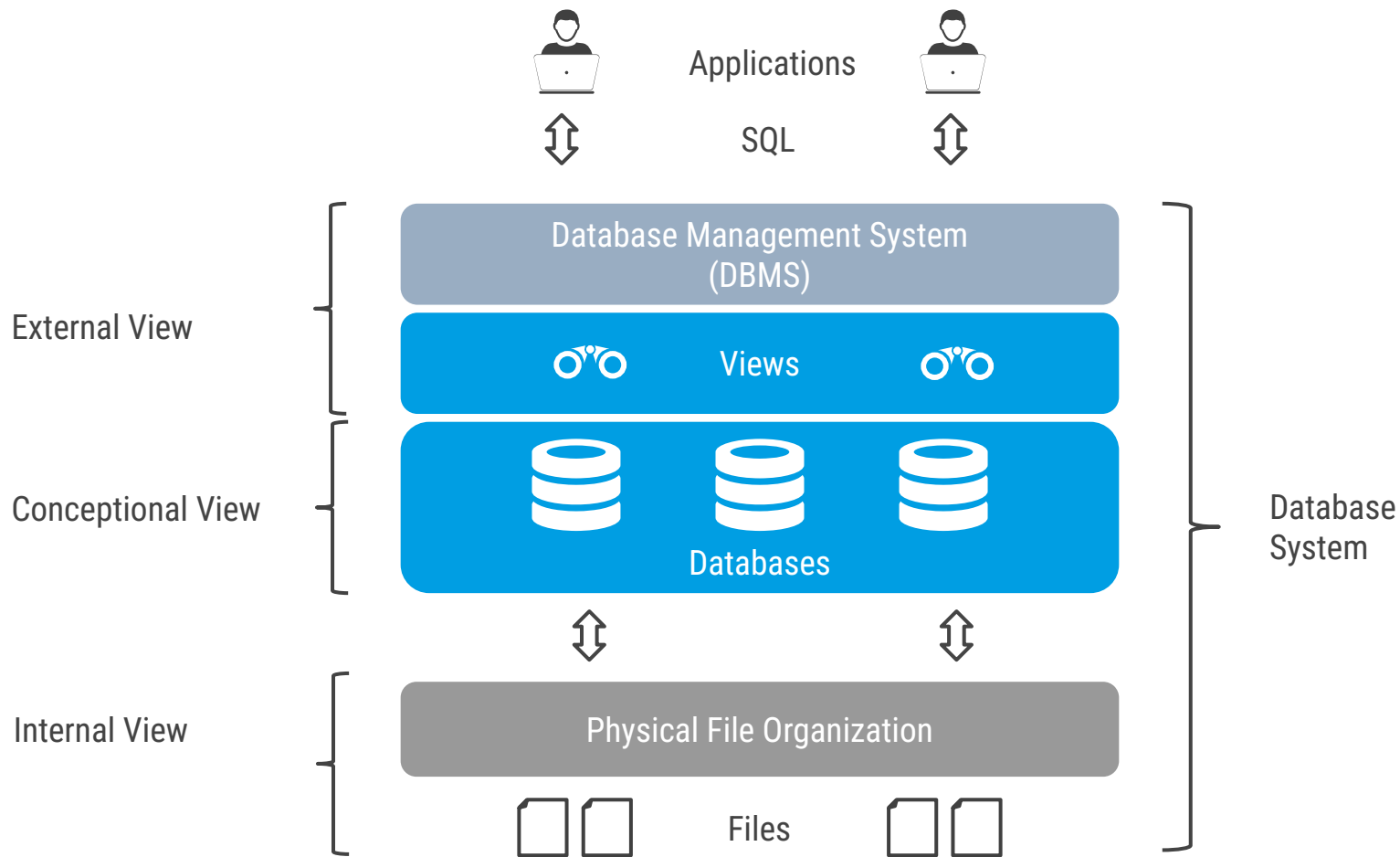


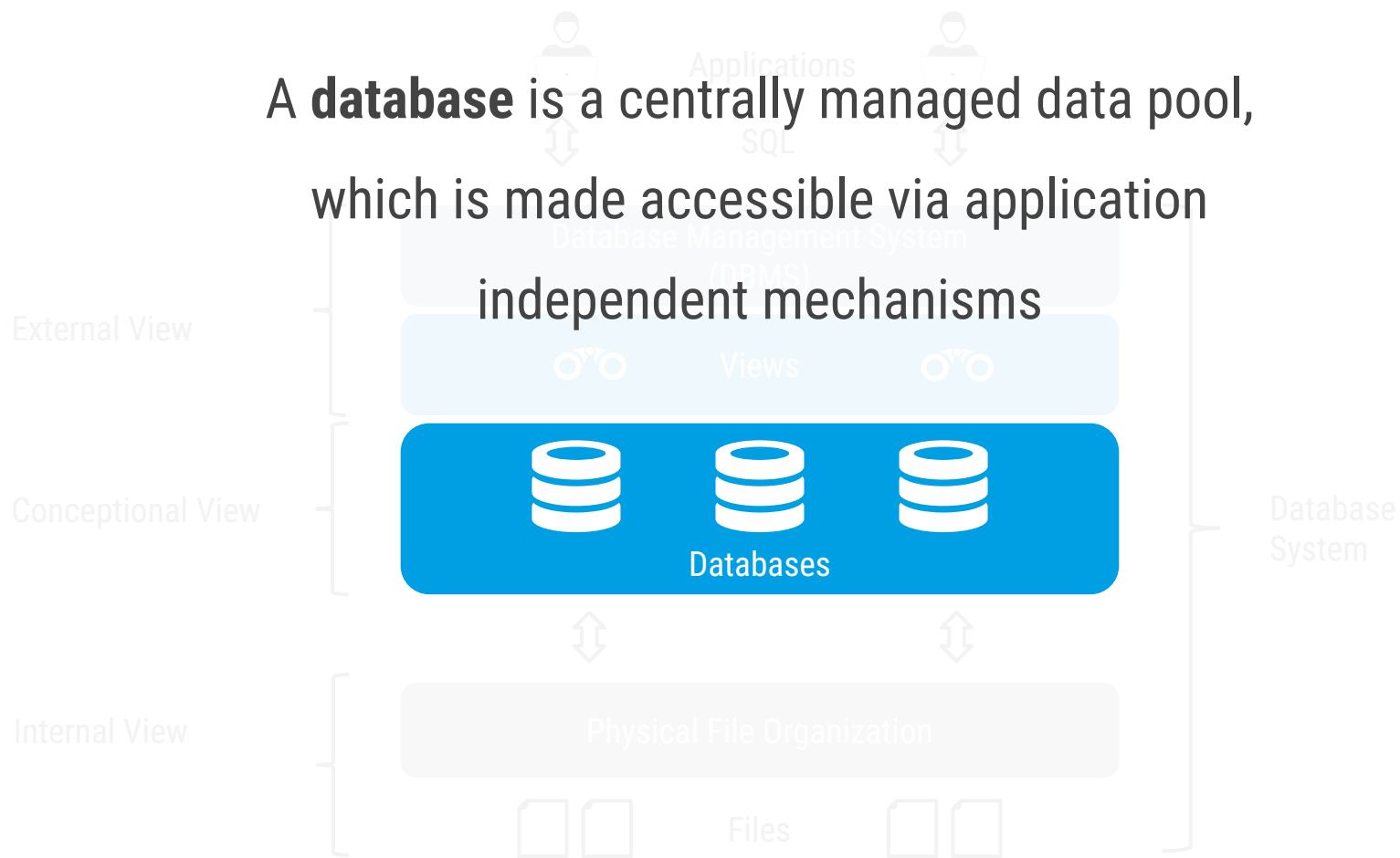


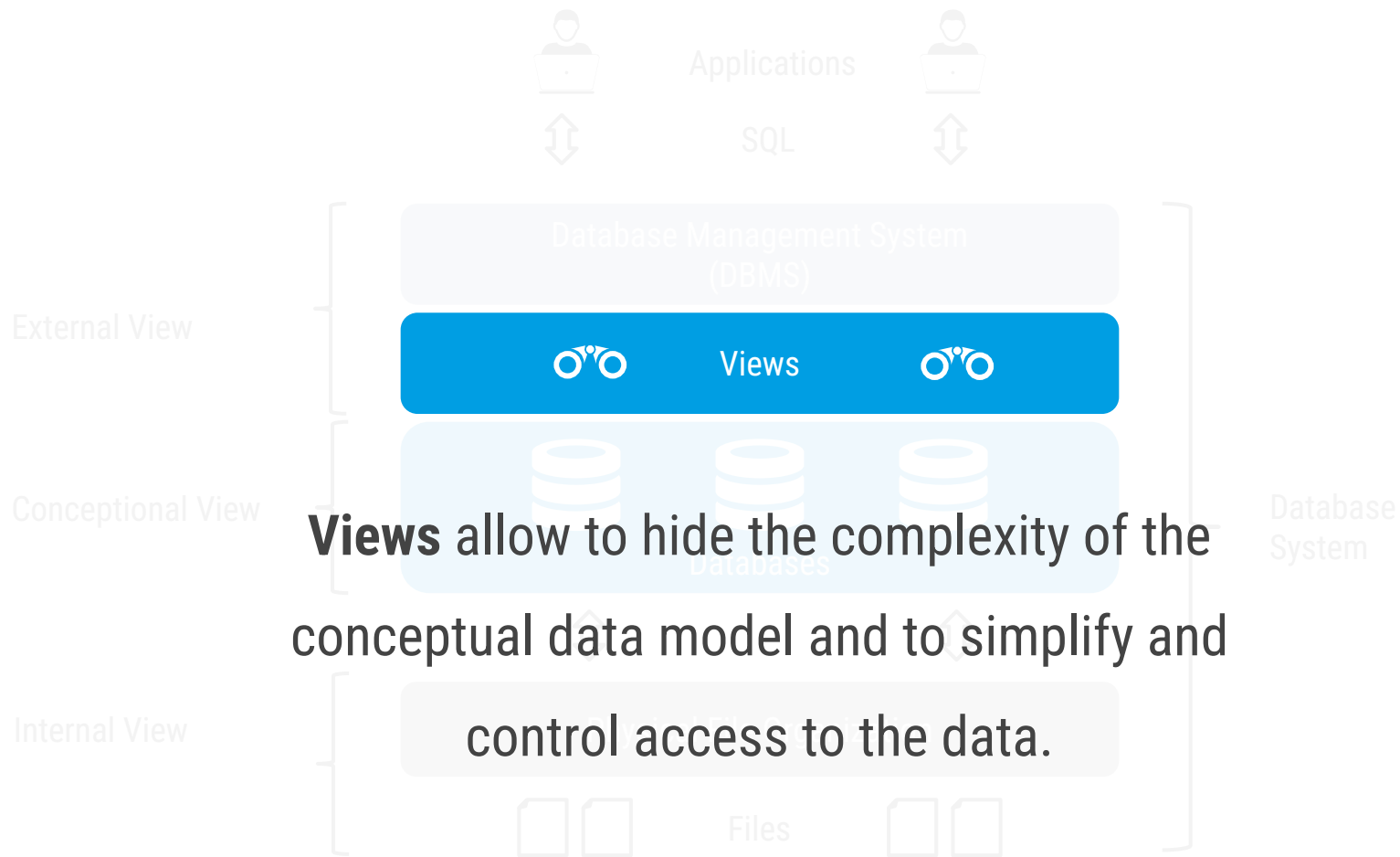
# **INFORMATION MANAGEMENT**

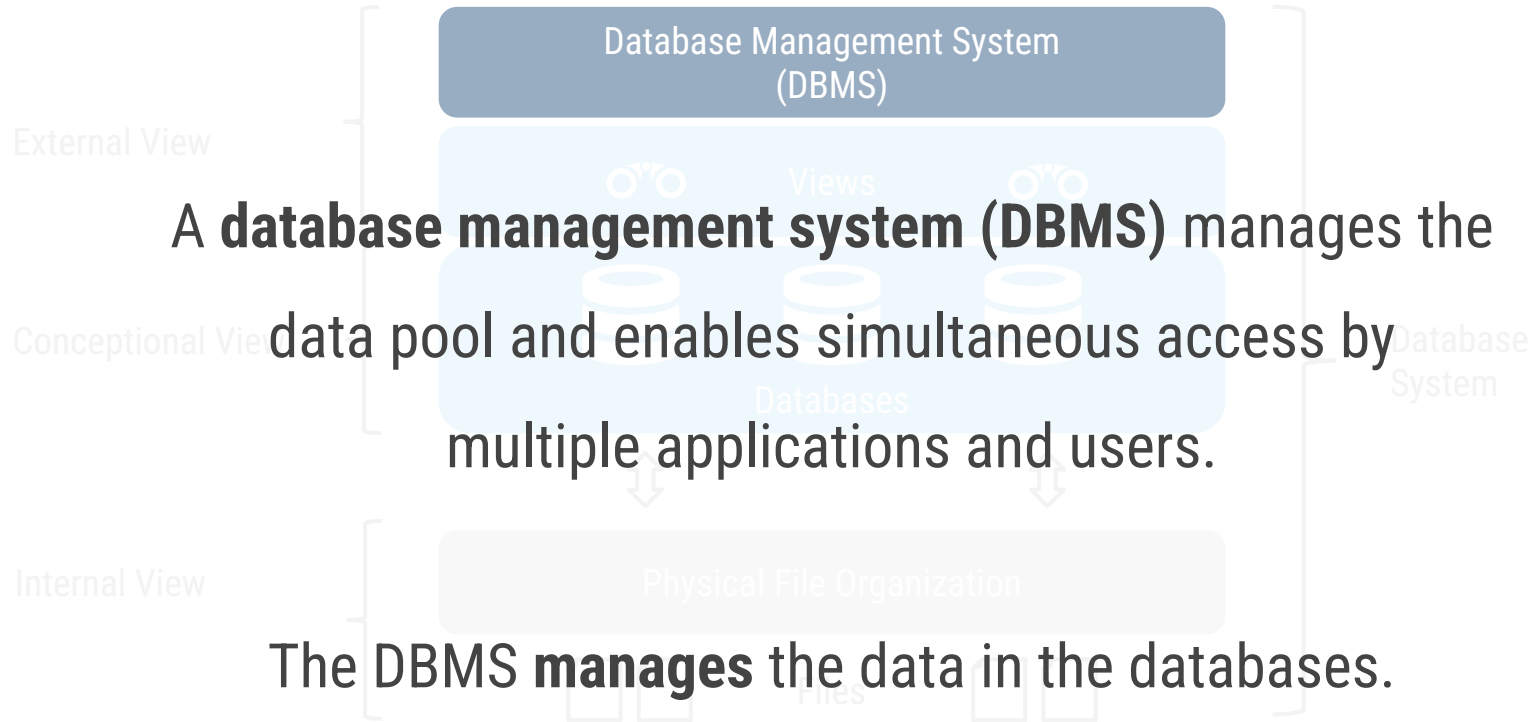
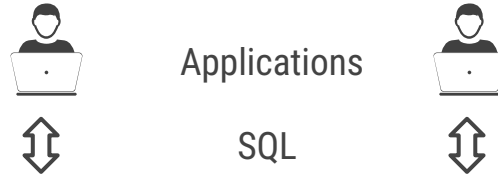
WHAT IS A DATABASE?



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





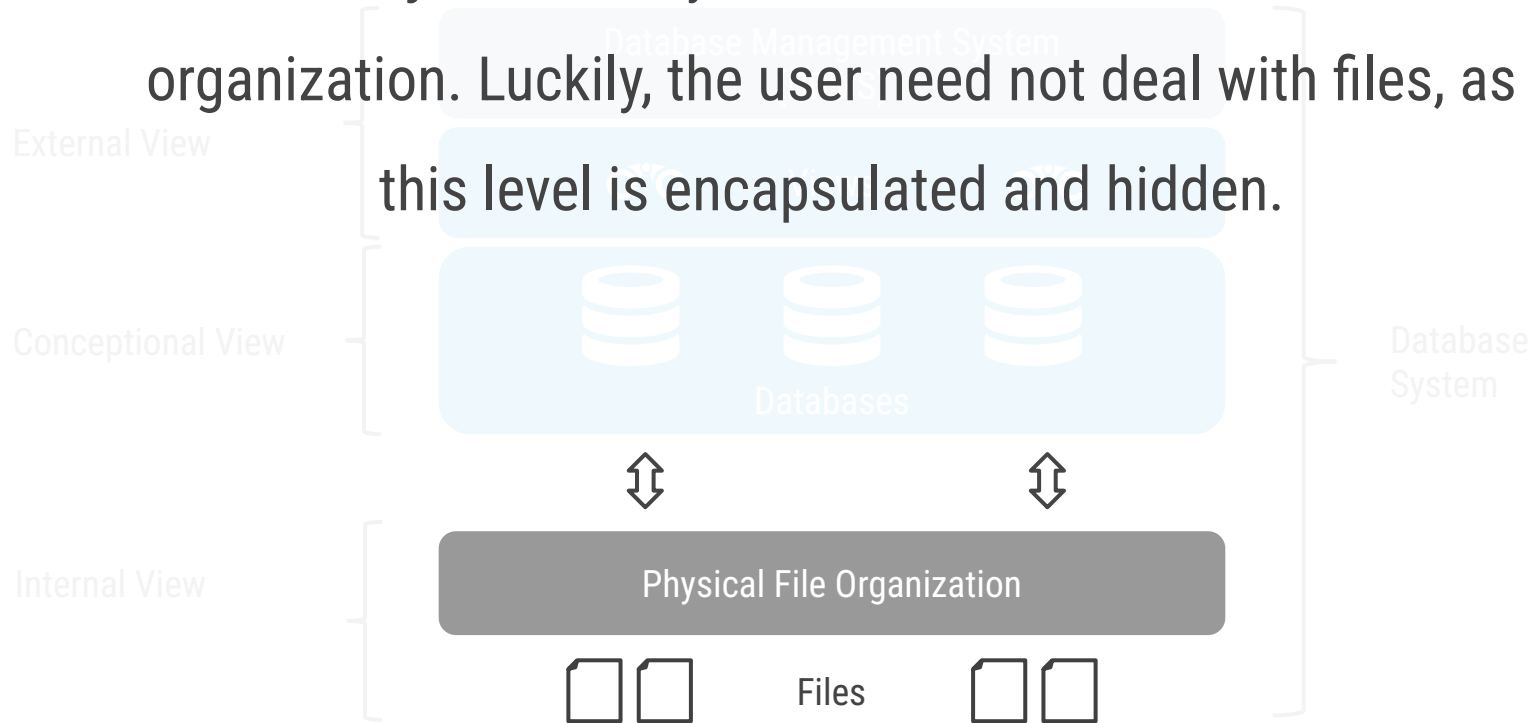


Databases eventually store their data on the computer's

**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:

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

# There are different types of databases:

