Relational Database Management System (RDBMS)

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What is DMBS?

Database Management Systems have two things to do:

- store interrelated data,
- provide some programs, libraries to access and modify that data.

Well-known DBMS's are Oracle, MySQL, PostgreSQL, MongoDB, etc.

File system vs. DBMS

Storing and manipulating data through file system calls is like cleaning your room:

- you don't want to do it,
- there's nothing interesting in it and it's also hard to do,
- you are not even able to do everything you want

(yes, it's 100% me)

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DBMS's support a lot though: it solves the problems of sharing of data, data consistency, transaction atomicity, concurrent accesses, search, isolation, security, etc.

Relational DBMS

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The common language for relational databases is SQL (structured query language).

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If you want your application to do a lot of complicated querying, database transactions and doing them reliably, then probably you will choose relational DBMS's.

Non-relational databases are completely different.

About SQL

Even though Structured Query Language is a standard, RDBMS's differ a bit in their SQL. These differences are small enough to not take it seriously during our studies.

Here's an example of specifying the number of records to return: `https://www.w3schools.com/sql/sql_top.asp`.

This tutorial is suggested to take:
`https://www.w3schools.com/sql/default.asp`

References

- http://bisma.in/file-system-vs-dbms/
- https://www.pluralsight.com/blog/software-development/relational-non-relational-databases