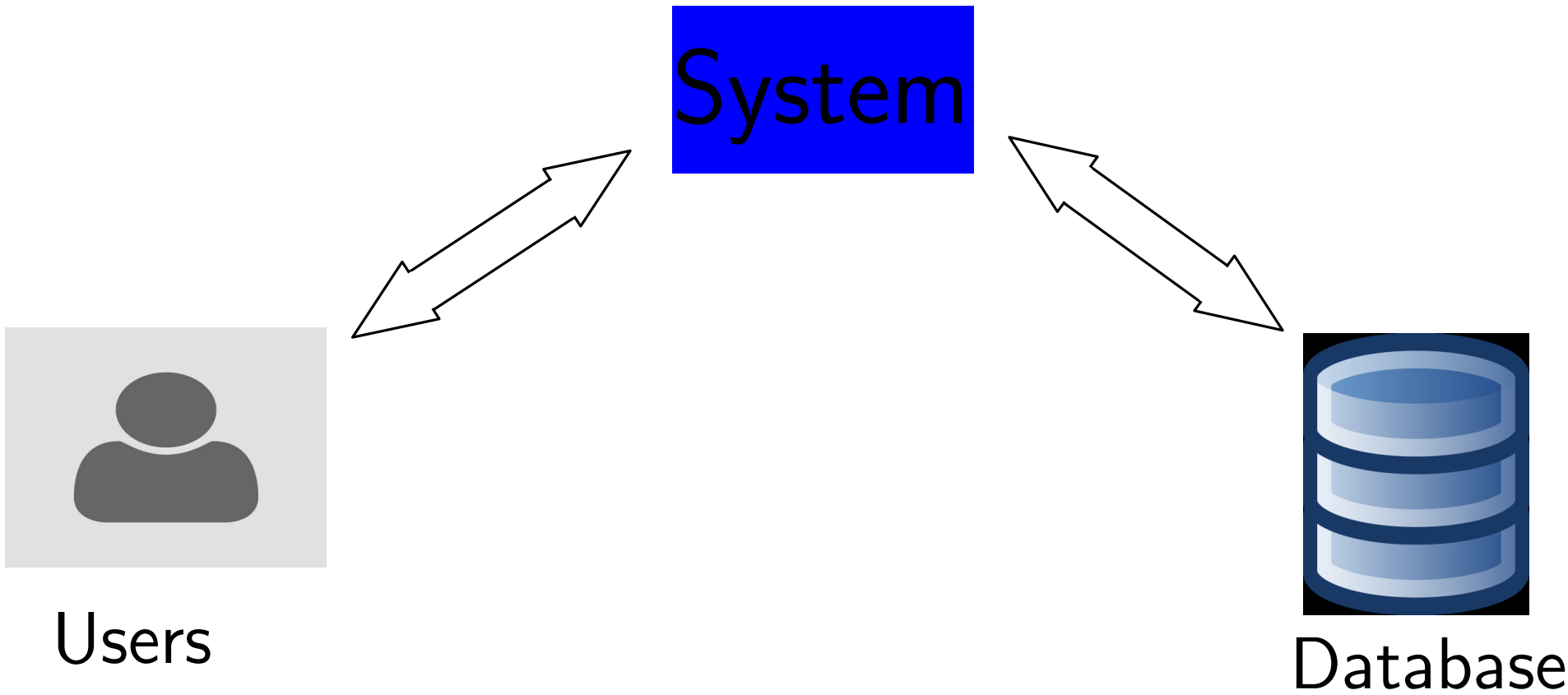
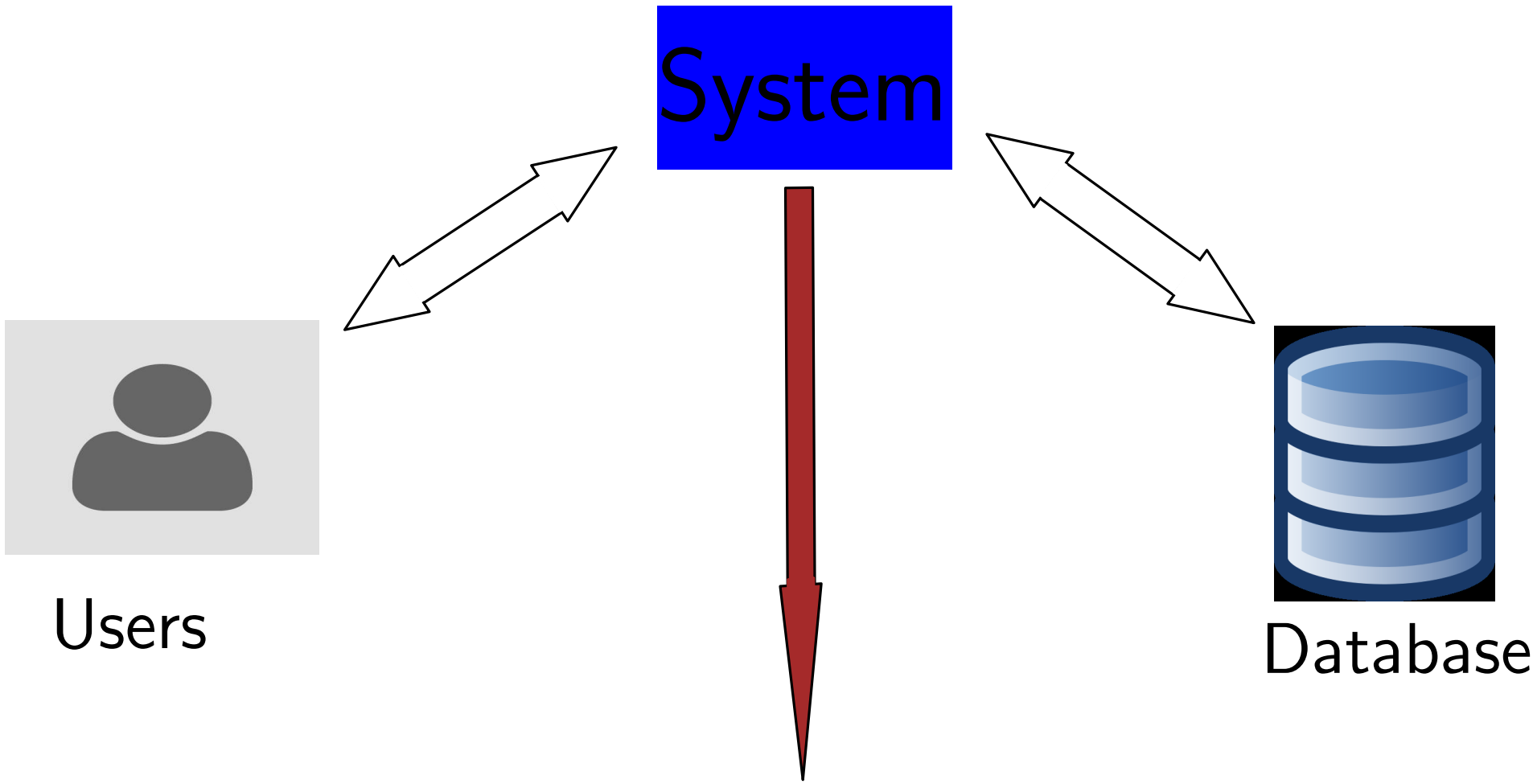
# What is DATABASE?

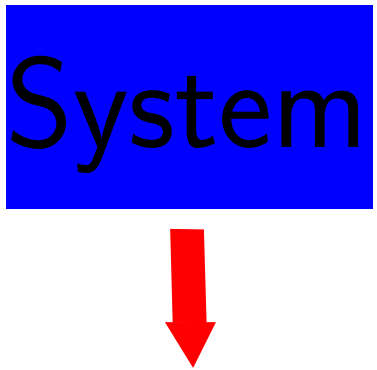
A database is an organized collection of data, stored and accessed electronically from a computer system.

Users

Database


System
Users
Database


System
Users
Database
The main focus of this course




Database management system (DBMS)

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**Definition:**

software system that enables users to define, create, maintain and control access to the database

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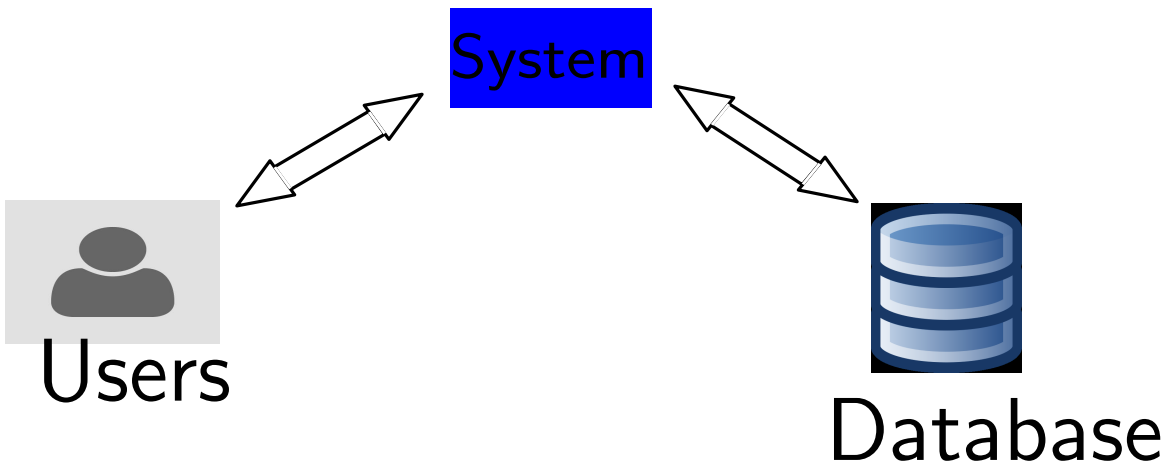

# Example: Database at Polytech

- For every student, we store ID number, name, adress, and date of birth.
- For every course, we store ID number, name, start and end dates and a short description.

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What is the best way to store those infos?

- files?, many problems... dificult to find and modify information
- Excel? better, but has limited options and storage

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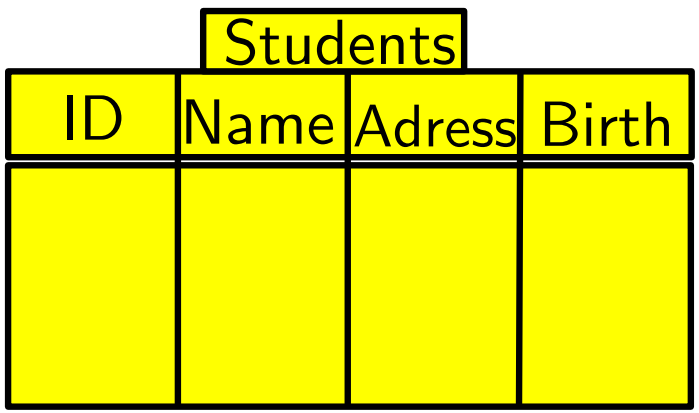


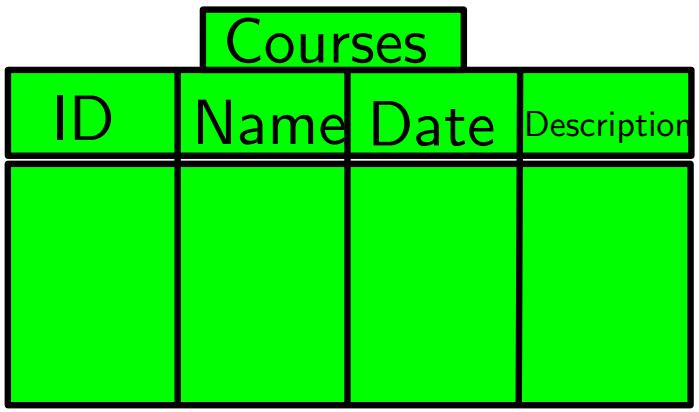

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- For every student, we store ID number, name, adress, and date of birth.
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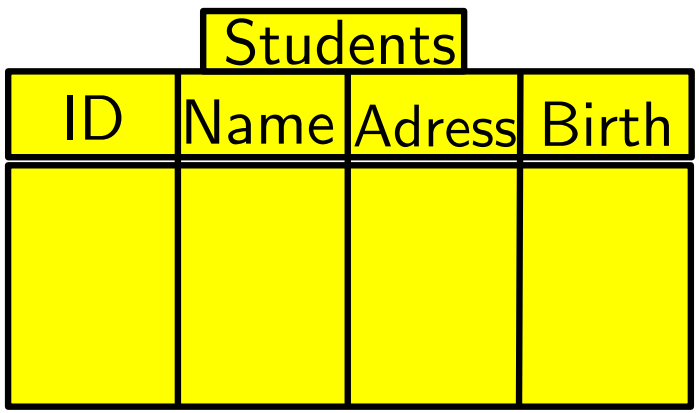
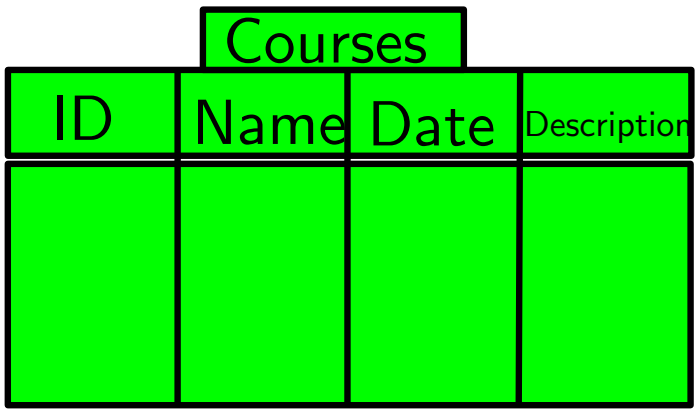
- Every student attends some courses



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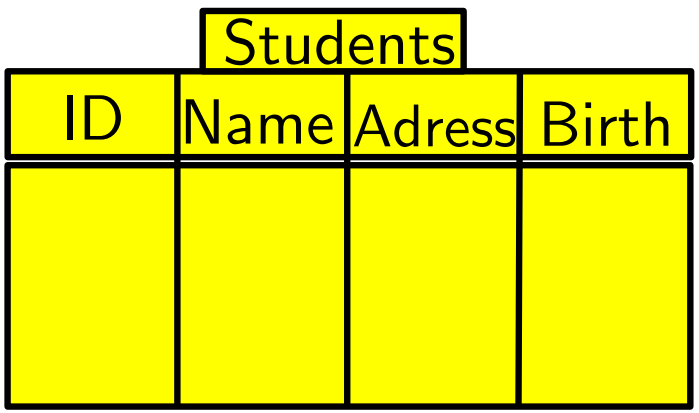
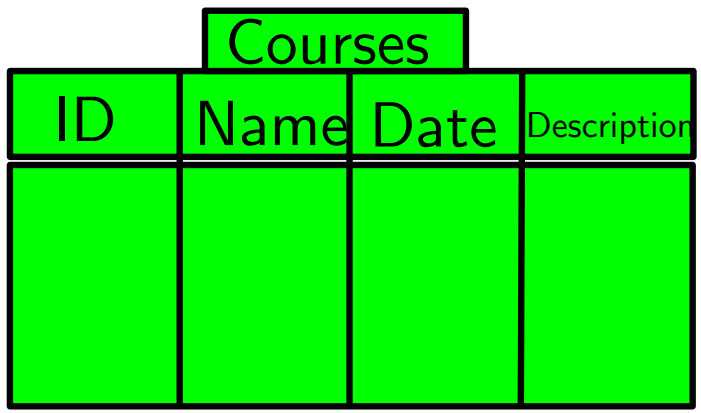



Student $S$

takes course $C$



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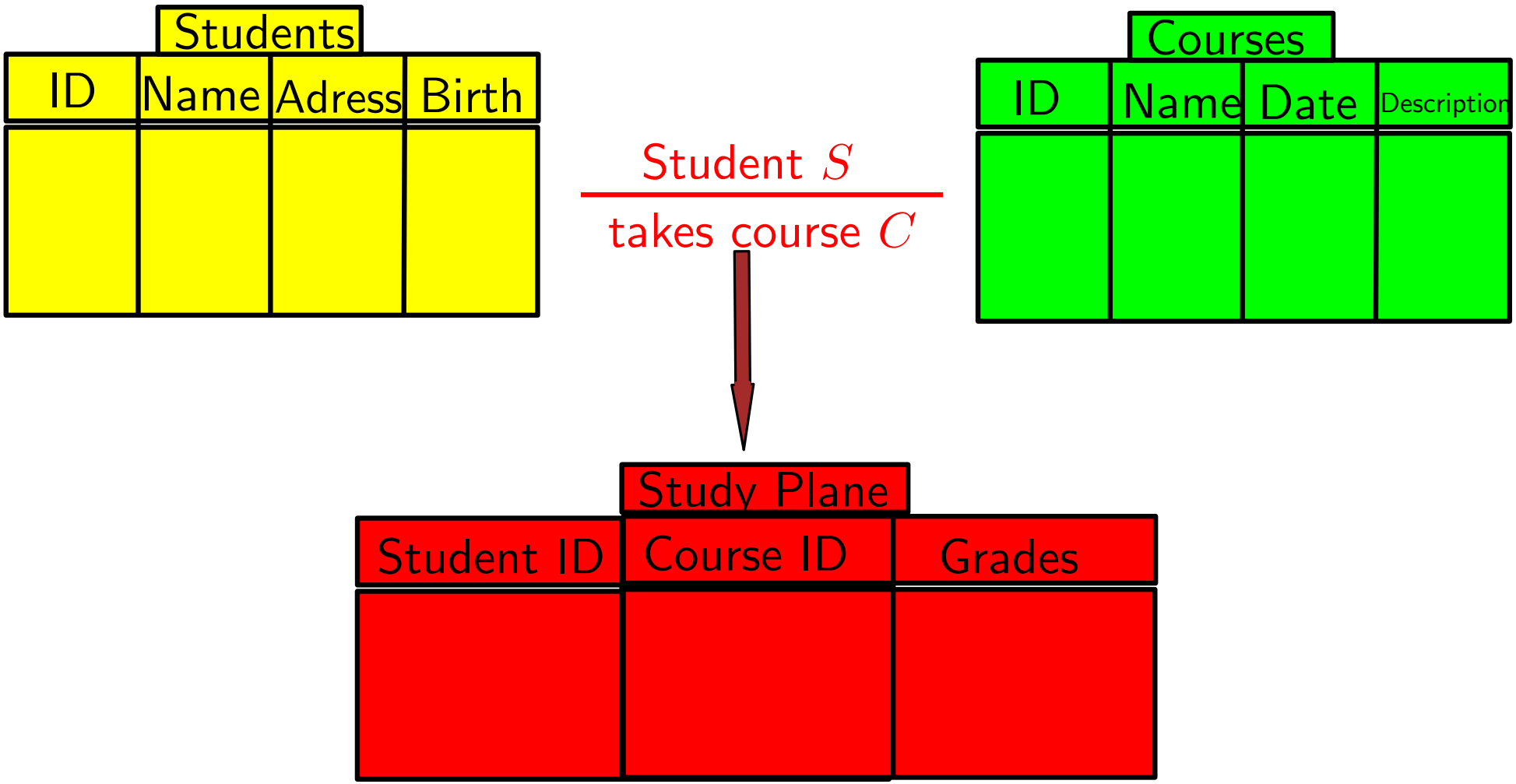

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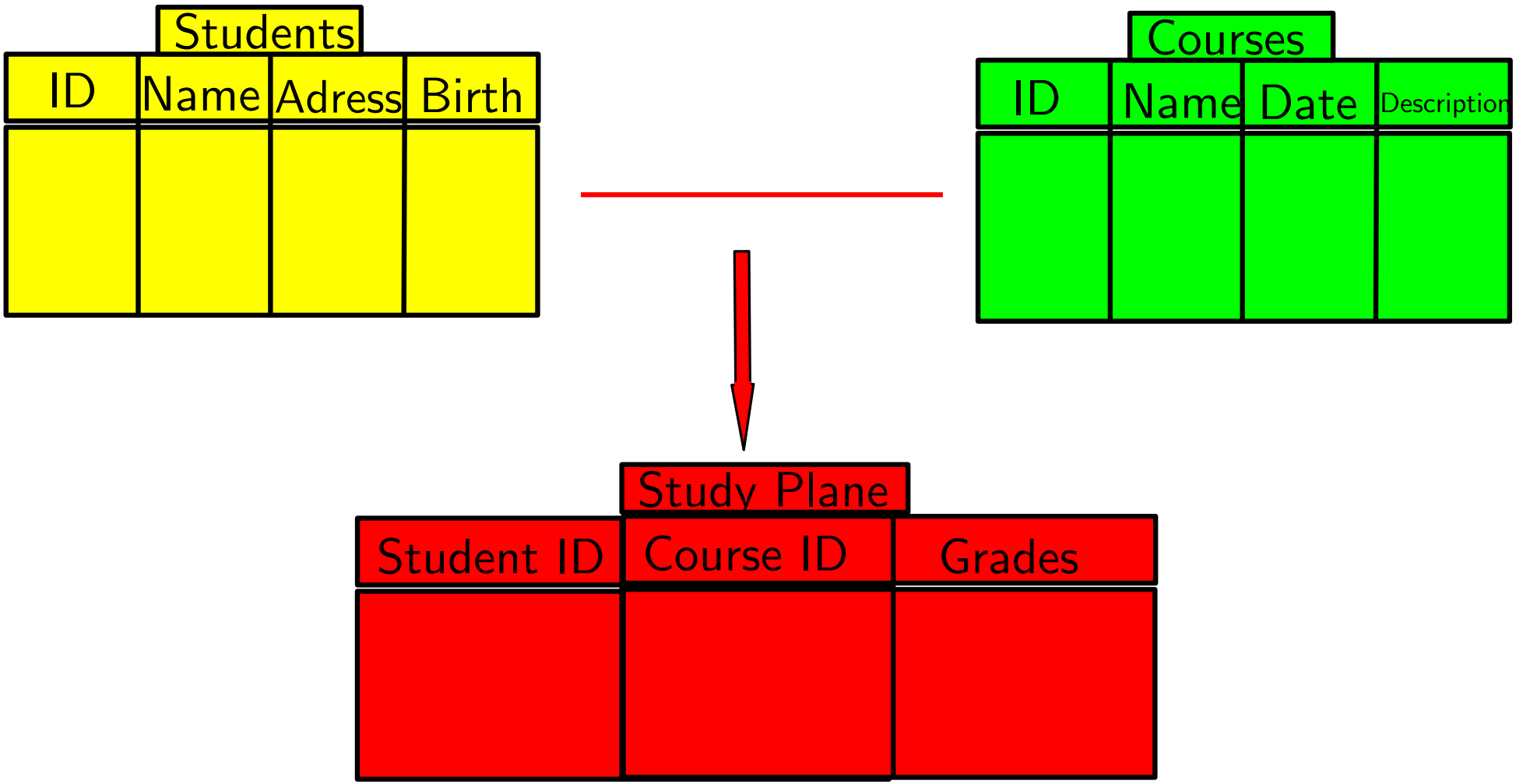

# More general: Relational model of Database