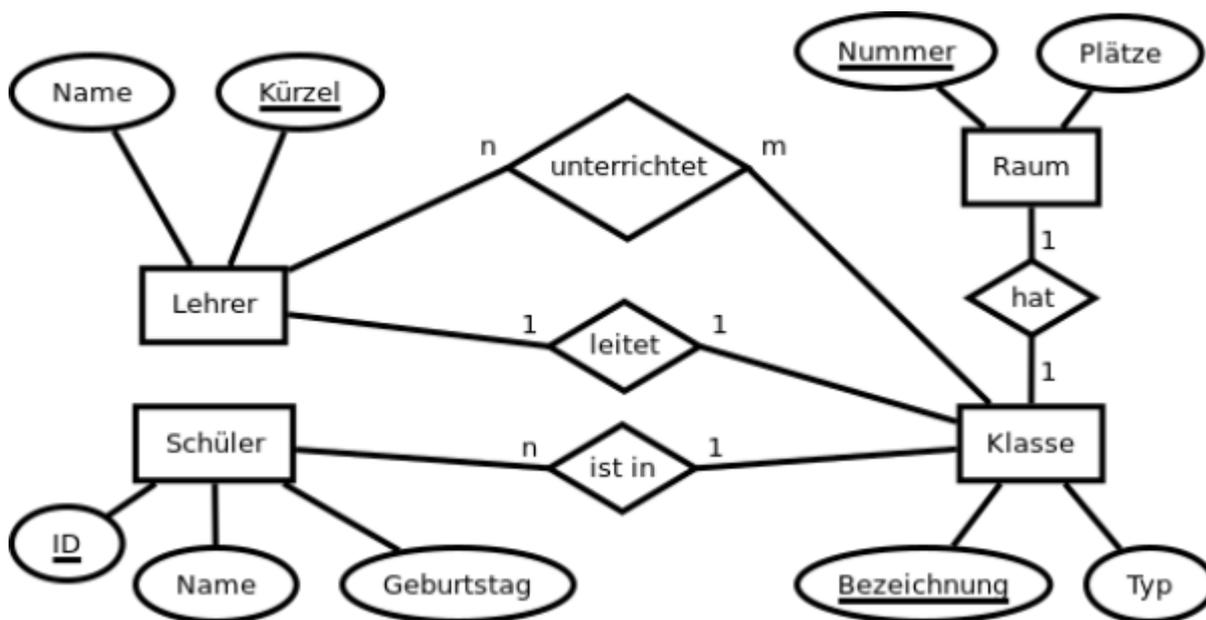


# LU03c - ERM and ERD

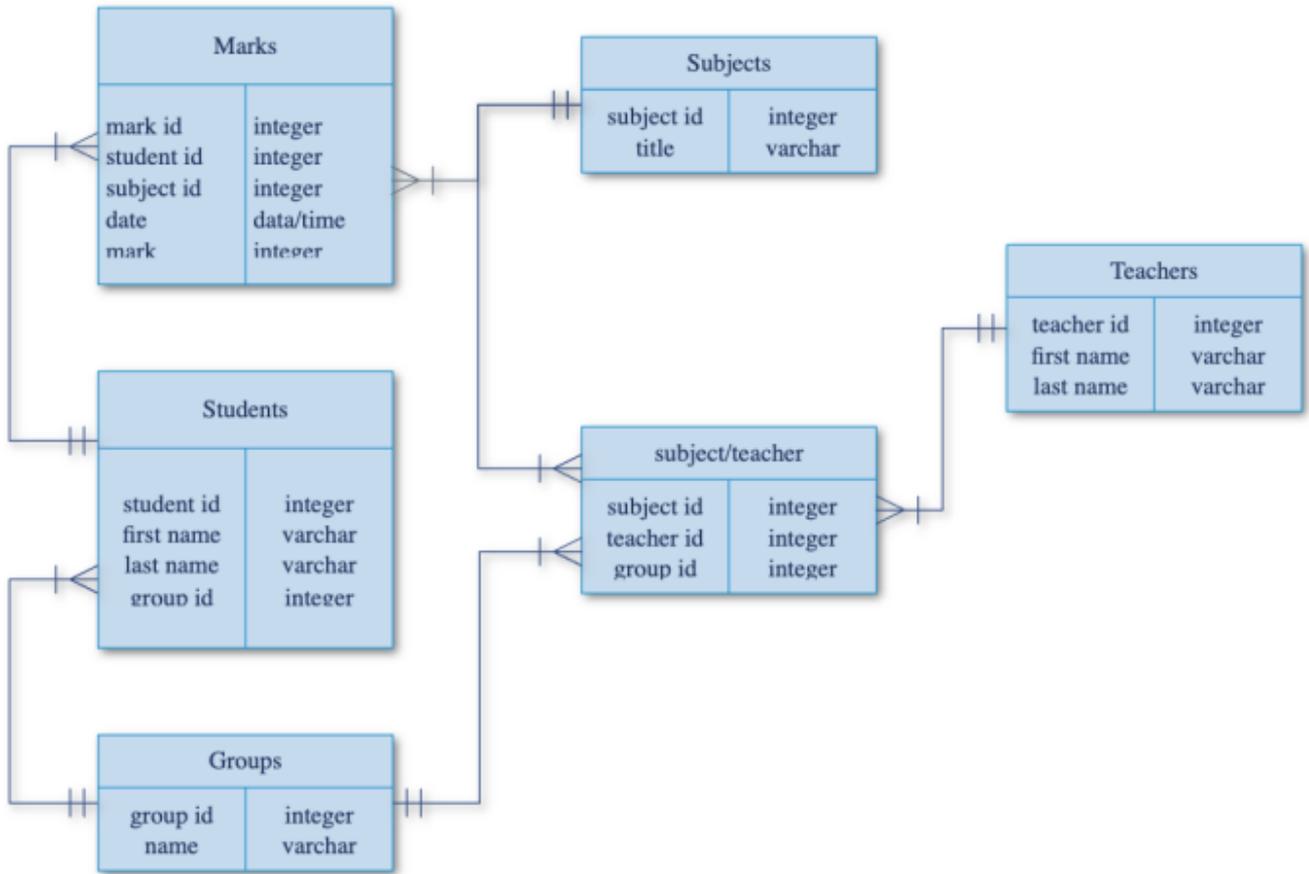
## Entity-Relationship Model = ERM

The Entity-Relationship Model (ERM) is a **conceptual data-model** used in database design to represent relationships between data entities in a system. An entity is a real-world object or concept, such as customer or product, and each entity has specific attributes that describe it. **ERM serves as a blueprint for creating databases, ensuring that data is accurately captured and linked.** The following illustration shows a database of students, their teachers and the rooms in which the lessons are held.



## Entity-Relationship Diagram = ERD

An Entity-Relationship Diagram (ERD) is the **graphical representation** of the ERM, visualizing entities, attributes, and their relationships. Commonly using Crow's Foot notation, ERDs clarify the structure of the database before development begins, making them essential for communicating design, ensuring normalization, and preventing errors. Below is an ERD of a school administration database.



## Additional material

- [Youtube DE: ERM einfach erklärt](#)
- [Youtube DE: ER-Modell - Teil 1](#)
- [Youtube DE: ER-Modell - Teil 2](#)
- [Youtube DE: Kardinalitäten und Primärschlüssel im ERM](#)
- [Youtube EN: Entity Relationship Diagram \(ERD\) - Part 1](#)
- [Youtube EN: Entity Relationship Diagram \(ERD\) - Part 2](#)

## Vocabulary

English	German
blueprint	Bauplan, Entwurf
to prevent	verindern



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Last update: **2024/08/23 15:22**

