

3. Relational Database

Relational Database - database that is structured to recognize relationships between stored items of information. SQL used

Features: all tables are connected in some way.

Example: Author > Books > Publishers

Primary Key

- identifies each record in the table
- must be unique
- cannot be empty
- cannot be changeable
- can be a single column (**simple**)
- can be multiple columns (**composite**)
- **only one Primary Key** per table

Example: Composite Key (Order No. & Line Number)

Order No.	Line No.	Product Code	Quantity
10667	1	SCREW083	150
10667	2	NUT392	32
10667	3	BOLT283	32
10668	1	NUT392	180
10669	1	SPANN920	2
10669	2	WRENCH932	1

Foreign Key

- references primary keys of other tables

- a table can have **any number** of Foreign Keys
- values **do not** have to be **unique**
- **the RDBMS** will prevent any changes that violate the relationship constraint

Relational databases are designed to reduce **data redundancy**.