

Databases and operating systems (DBOS)

From data model to Relational Database Design
Object-Relational mapping.

What does it all mean?

- When you see a class diagram, Entity Relation diagram you need to know how to transform it into a relational data model.
- We have a set of rules we can use to do this transformation.

Techniques to represent aspects of a data model

Feature in model	Technique used in relational databases
Class	Add a table with a primary key.
Attribute	Add a field with an appropriate data type to the table.
Object	Add a row of data to the table.
1-Many relationship	Use a foreign key – a reference to a particular row (or object) in the table at the 1 end of the relationship.
Many-Many relationship	Add a new table with two foreign keys.
Optionality of 1 at the 1 end of a relationship	Make the value of the foreign key required.
Parent and child classes (inheritance)	Add a table for the parent class. Add tables for each child class with a primary key that is also a foreign key referencing the parent table.



Example...

