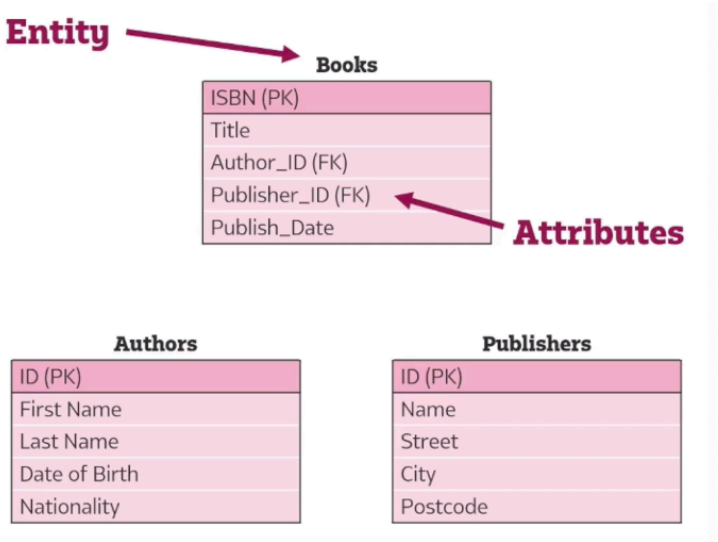
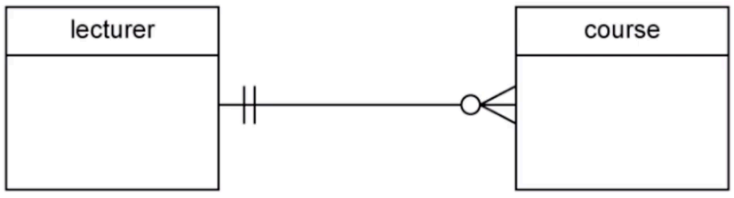
5. Entity Relationship Diagram

- Represents all entities in our data model
- **Entity** = **table** in a database
- **Entity** has a list of **attributes**(columns)
- **Relationship**s shown with lines
- In tables we have **primary** and **foreign keys**



Crow's Food Notation - Relationships

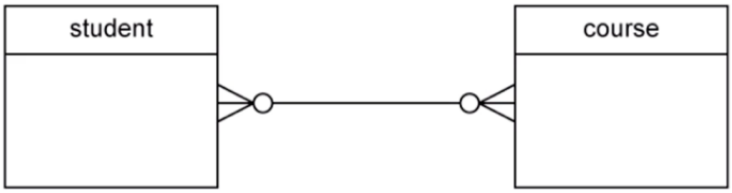
One-To-Many each row in A might be associated to several rows in B. i.e Each lecturer might take any number of courses including 0. But each course must have exactly one lecturer.



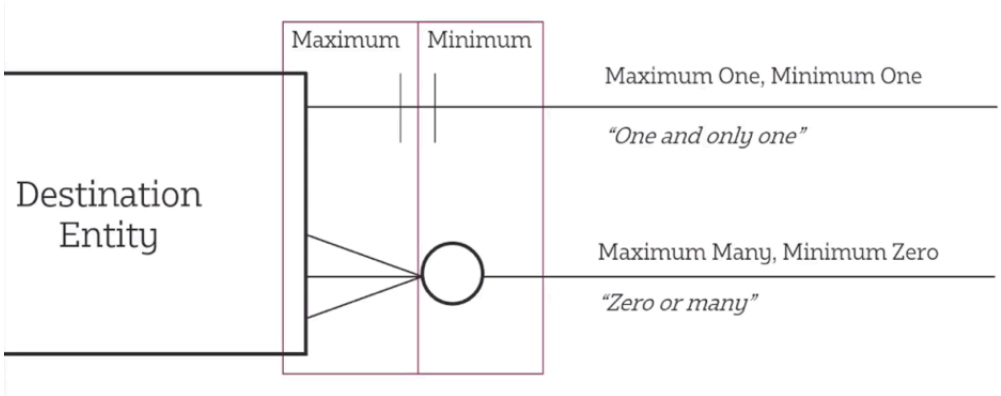
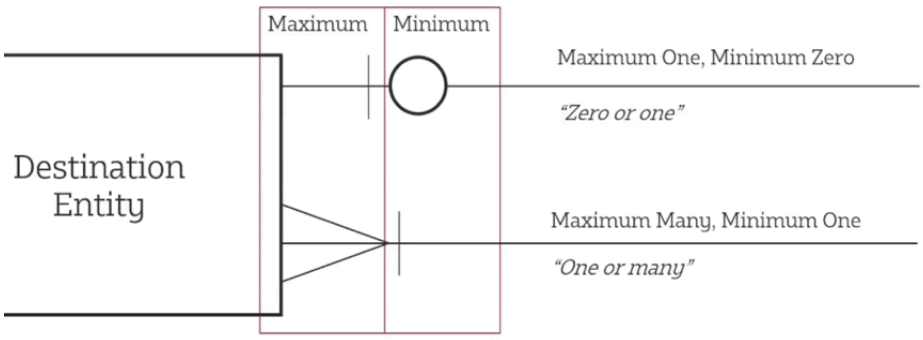
One-To-One

Many-To-Many

Each student can take any number of courses including 0, each course can have any number of students



Destination Entity Relationships

Maximum One, Minimum One (One-And-Only-One)

Maximum Many, Minimum Zero (Zero or Many)