The World of SQL

Part 1: Relational Data

Heads up

Relational databases are an older, pre-Web technology. So, the syntax here is unlike anything we've done before.

Content

- Relational databases
- Relational database concepts
- Data modeling example

Relational databases

Definition

A database structured to recognize relations among stored items of information.

Key differences between this and NoSQL

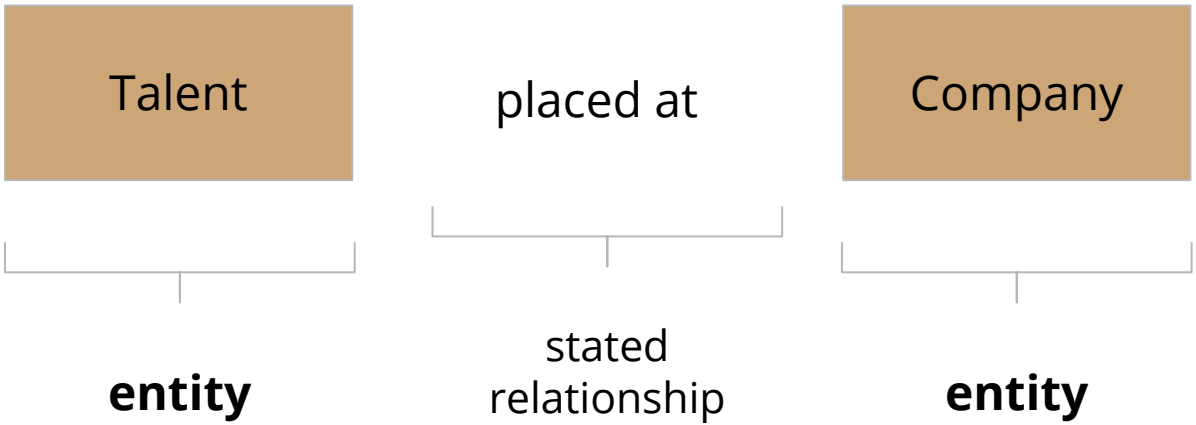
- Relational databases rely on schemas to define data & relationships
- We must model our data in advance
- We structure our SQL data for general use cases, not specific ones

Relational DB concepts

Data modeling

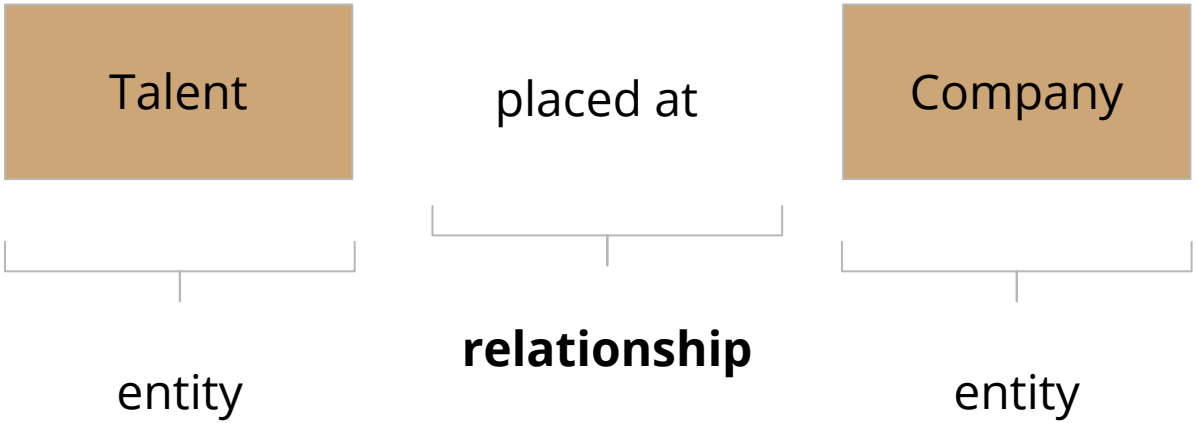
Entity

Some unit of data that can be classified and have stated relationships to other entities.



Relationship

The connection between entities.

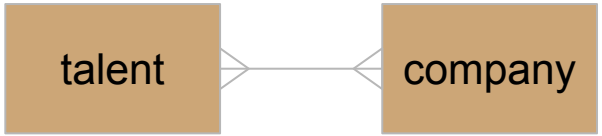


Relationship types

1-to-1

1-to-many

many-to-many



Example

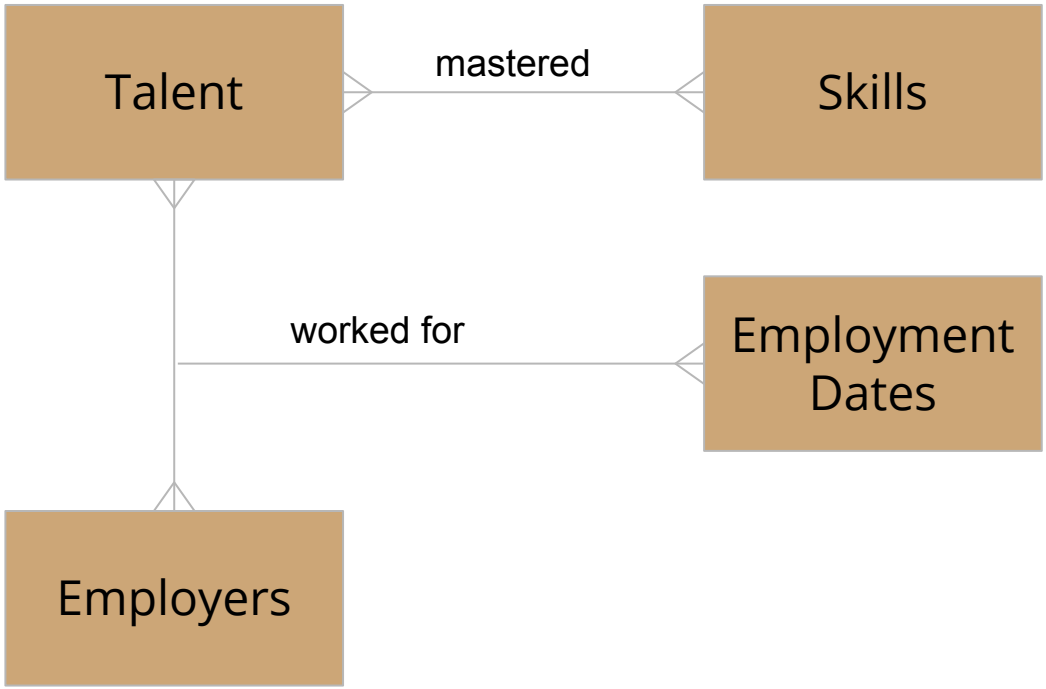
Prompt

Rando, our favorite HR/Talent company, has an enterprise system with a relational database. How might they be storing their talent data?

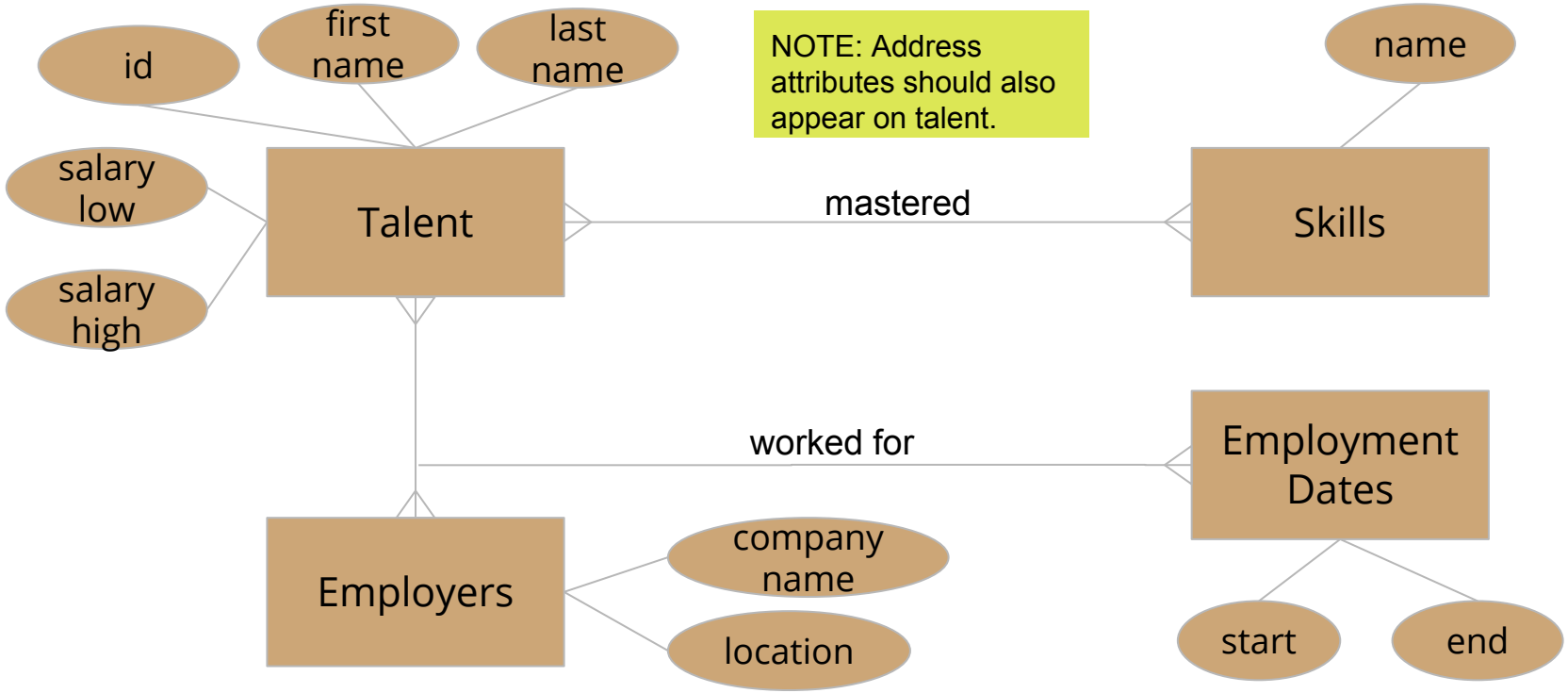
Talent data

- id
- name
- address
- skills
- salary requirements
- employment history
- current placement

Talent data to entities



Talent data entities with attributes



Peer Challenge

Task

Create an entity-relationship model with attributes for Rando's company data:

- id
- company name
- contact
- address
- opportunities
- Rando account representative