# Relational model checkpoint

16/06/22

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# Overview

- The relational model is the second step in database designing.
- It consists of converting the conceptual model (the Entity-relationship model) to a relational model based on several rules.

# Objective

- Convert the entity relationship model above to a relational diagram

# Caracteristiques

## Relational model: main concepts

- A relational model is composed of relations (tables)
- Each relation has its own properties or attributes ( column names)
- Each relation should have an identifier (primary key) which can be simple or composed.
- A relation can reference another relation using a foreign key, which is the primary key of the referenced relation.
- The identifier of each relation must be underlined
- The foreign keys must be preceded or followed by a #

# Big steps :

## I. Mapping rules :

OneToOne

OneToMany👌

ManyToMany

## II. Mapping rules specific case:

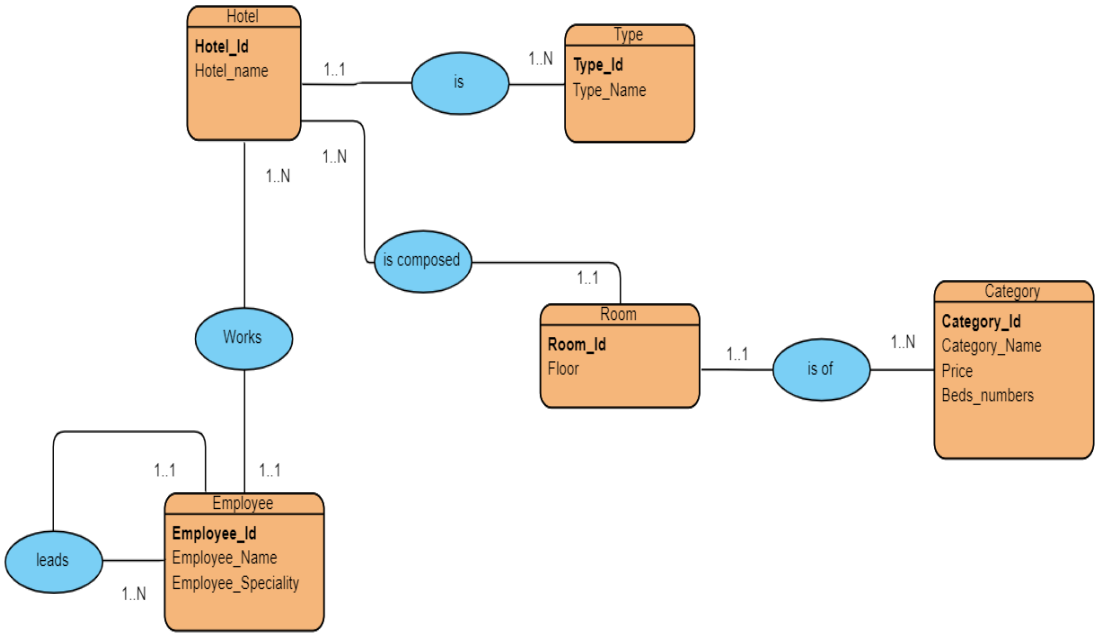
- Reflexive relation 👌
- Weak entity
- SubEntity 👌

## III. Normalization

The normalization is based on 3 normal forms which should be respected :

1NF => 2NF => 3NF

### Entity-relationships model :




## Solution :

HOTEL (**hotel_id**, Hotel_name,Hotel_type,#Type_id)

TYPE (**Type_id**,Type_name)

ROOM(**Room_id**, Floor, #hotel_id, #Category_id)

CATEGORY(**Category_id**, Category_name, Price, Beds_numbers)

EMPLOYEE(**Employee_id**, Employee_name, Employee_speciality, #Hotel_id,#Leader_id)

**Identifiers** #Foreign keys

https://github.com/MarinosTBH/MarinosTBH-Chapter_28_Checkpoint_Relational_Model_16-06-22.git