**Entity-Relationship Model (ERM)**

To convert the provided Entity-Relationship Model (ERM) details into a relational diagram, we need to identify the entities, their attributes, and the relationships between them. Then, we'll define the corresponding tables in a relational database schema. Here's how we can do it:

**Entities and Attributes**

1. **Hotel**
   * Hotel\_id (Primary Key)
   * Hotel\_Name
2. **Type**
   * Type\_id (Primary Key)
   * Type\_Name
3. **Room**
   * Room\_id (Primary Key)
   * floor
   * Hotel\_id (Foreign Key)
   * Type\_id (Foreign Key)
   * Category\_Name (Foreign Key)
4. **Category**
   * Category\_Name (Primary Key)
   * Price
   * Bed\_Numbers
5. **Employee**
   * Employee\_id (Primary Key)
   * Employee\_Name
   * Employee\_Speciality
   * Hotel\_id (Foreign Key)

**Relationships**

* Each **Hotel** has many **Rooms**.
* Each **Room** belongs to one **Type**.
* Each **Room** is assigned a **Category**.
* Each **Employee** works at one **Hotel**.

**Relational Diagram**

Here is the textual representation of the relational diagram:

+-----------+ +-----------+ +-----------+ +-----------+ +-----------+

| Hotel | | Type | | Room | | Category | | Employee |

+-----------+ +-----------+ +-----------+ +-----------+ +-----------+

| Hotel\_id | PK | Type\_id | PK | Room\_id | PK | Cat\_Name | PK | Emp\_id | PK

| Hotel\_Name| | Type\_Name | | floor | | Price | | Emp\_Name |

+-----------+ +-----------+ | Hotel\_id | FK | Bed\_Numbers| | Emp\_Spec |

| Type\_id | FK +-----------+ | Hotel\_id | FK

| Cat\_Name | FK +-----------+

+-----------+

**SQL Schema Creation**

### Explanation

* **Hotel** table stores information about different hotels.
* **Type** table stores different types of rooms.
* **Category** table stores room categories with associated price and bed numbers.
* **Room** table stores information about individual rooms, linking to their hotel, type, and category.
* **Employee** table stores information about employees, linking them to their respective hotels.

This relational schema provides a structured way to manage the hotel's data, allowing for efficient queries and data integrity.