

ANP-C7971

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**Database for
Apartment
Management System**

Apartment Management System

The Apartment Management System is a comprehensive database-driven application designed to efficiently manage and track information related to apartments, residents, leases, payments, and maintenance requests. The system captures key details about buildings, apartments, and residents, including contact information, lease agreements, rent payments, and move-in/move-out dates.

Additionally, it handles maintenance requests, tracking reported issues, resolution status, and associated apartments. By integrating these features, the system streamlines administrative tasks, enhances communication between residents and management, and provides valuable insights into occupancy rates, revenue, and property maintenance. Ultimately, the Apartment Management System aims to simplify the complexities of property management.

Entities :

1. Building: Represents a residential building with attributes

- Building ID (primary key)
- Address
- City
- State

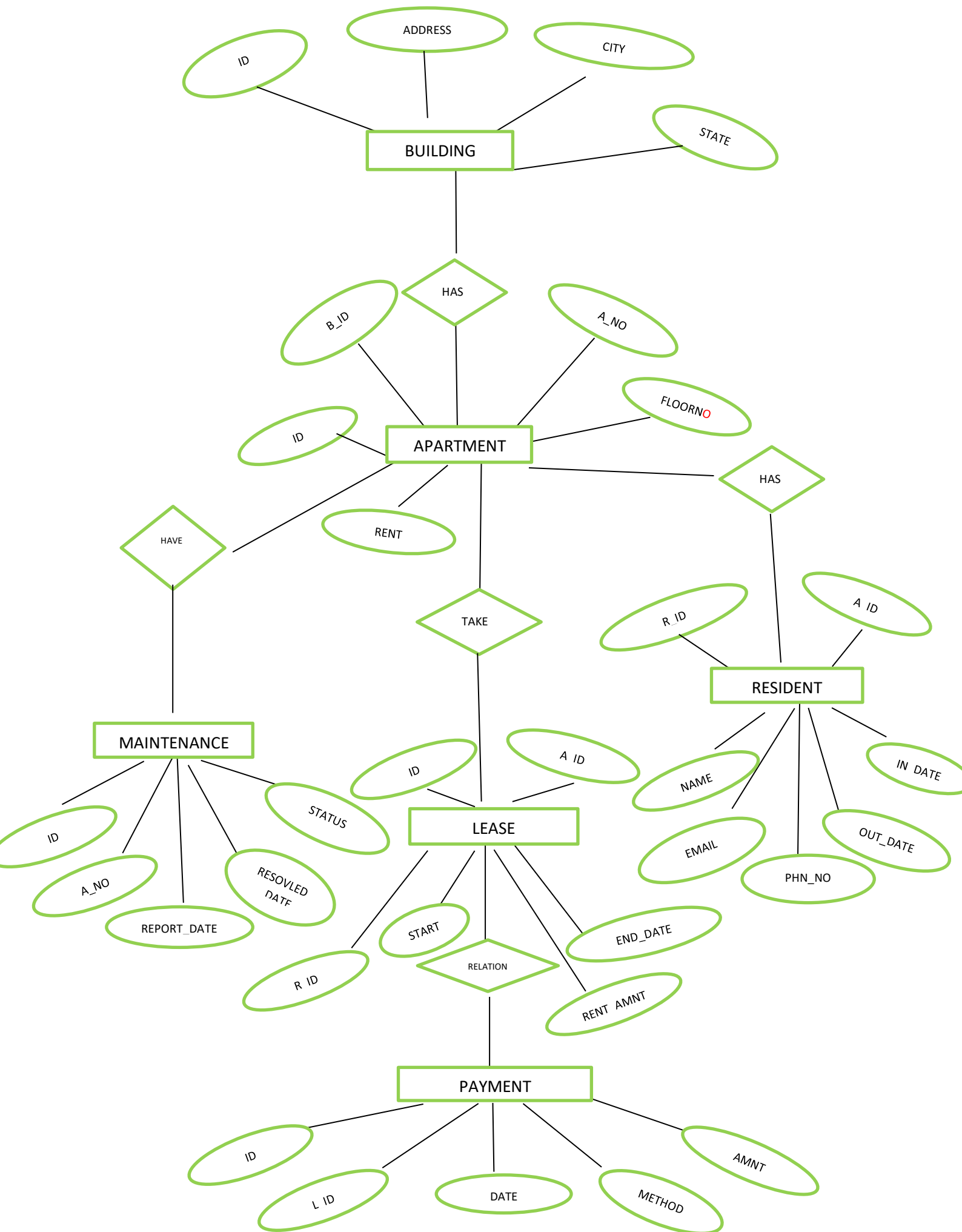
2. **Apartment:** Represents an individual apartment within a building with attributes
 - Apartment ID (primary key)
 - Building ID (foreign key referencing the Building entity)
 - Apartment Number
 - Floor Number
 - Rent
3. **Resident:** Represents a resident living in an apartment with attributes:
 - Resident ID (primary key)
 - Apartment ID (foreign key referencing the Apartment entity)
 - Name
 - Email
 - Phone Number
 - Move-In Date
 - Move-Out Date
4. **Lease:** Represents a lease agreement with attributes
 - Lease ID (primary key)
 - Apartment ID (foreign key referencing the Apartment entity)
 - Resident ID (foreign key referencing the Resident entity)
 - Lease Start Date
 - End Date
 - Rent Amount
5. **Payment:** Represents a payment made by a resident with attributes
 - Payment ID (primary key)
 - Lease ID (foreign key referencing the Lease entity)
 - Payment Date
 - Payment Amount
 - Payment Method
6. **Maintenance:** Represents maintenance requests for an apartment with attributes
 - Maintenance ID (primary key)
 - Apartment ID (foreign key referencing the Apartment entity)
 - Description

- Date Reported
- Date Resolved
- Status

Relationships:

- ❖ A building can have multiple apartments (one-to-many).
- ❖ An apartment is located in one building (many-to-one).
- ❖ An apartment can have multiple residents (one-to-many).
- ❖ A resident lives in one apartment (many-to-one).
- ❖ A lease is associated with one apartment and one resident (many-to-one).
- ❖ A resident can have multiple leases (one-to-many).
- ❖ A payment is associated with one lease (many-to-one).
- ❖ A maintenance request is associated with one apartment (many-to-one).

ER DIAGRAM OF APARTMENT MANAGEMENT SYSTEM



EER Diagram of Apartment Management System

