

**Database Topic:** Property Management System

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### CHANGE LOGS

- **Added new entities:**

Entity Name	Why entity included?	How an entity is related to other entities?
<b>ApartmentAddress</b>	Every Apartment have its own unique Postal Address for legal purposes. Without this it would be impossible to identify apartment in global scale.	Each Apartment has a unique mandatory Apartment Address. These are associated with a One to One relationship with ApartmentID as foreign key in ApartmentAddress Entity.
<b>ApartmentMaintenanceRecords</b>	The apartments undergo several renovations and maintenance every year. It is useful to keep track of these servicing logs so that we can identify the problems and the causes.	The ApartmentMaintenanceRecords Entity is associated with the Apartments Entity to keep a history of all maintenance undergone with one to many relationships with ApartmentID as foreign key. This is optional which means in case of new Apartments there can be no maintenance records.
<b>StaffMembersEmergencyContacts</b>	In case of occurrence of any incident related to the staff members, the management needs to have a point-of-contact for each staff member in the property.	The StaffMembersEmergencyContacts contains the name, address and contact information of the point-of contact of the staff members. The primary key StaffMembersEmergencyContactID relates to StaffMembers entity in many-to-one relationship, as each staff member can provide one or more emergency contact details to the management.
<b>ResidentEmploymentRecords</b>	For understanding the economic background of the resident, it is necessary to keep a record of his current occupation and it also helps	TheResidentEmploymentRecords are associated with Residents Entity with one to one relationship and is also optional, which means a student won't have an employment so it can be null.

	to contact the resident in case of an emergency where he is unavailable.	The ResidentID is denoted as a foreign key here.
<b>ResidentCompanyAddress</b>	The company address is needed for the entity ResidentEmploymentRecords. In order to achieve third normal form, we need a separate entity to store the postal address of the Company.	Each Company will have a Postal Address. So, ResidentCompanyAddress entity is associated with the ResidentEmploymentRecords entity with a mandatory one to one relationship. This is achieved by denoting ResidentCompanyAddress entity's ResidentEmploymentRecordID as a foreign key.

- **Made changes to the participation for the following existing entities:**

<b>Entities Involved</b>	<b>Before Changes (Initial Erd)</b>	<b>After Changes (Final Erd)</b>
<b>StaffMembers , StaffMembersCommunityEvents</b>	The participation of the entity StaffMembersCommunityEvents was mandatory.	The participation of the entity StaffMembersCommunityEvents has been made optional.
<b>StaffMembers , MaintenanceRequests</b>	The participation of the entity MaintenanceRequests was mandatory.	The participation of the entity MaintenanceRequests has been made optional.
<b>MaintenanceRequests , Residents</b>	The participation of the entity MaintenanceRequests was mandatory.	The participation of the entity MaintenanceRequests has been made optional.
<b>ResidentCommunityEvents , Residents</b>	The participation of the entity ResidentCommunityEvents was mandatory.	The participation of the entity ResidentCommunityEvents has been made optional.

- **Made changes to the relationships for the following existing entities:**

Old Relationship	New Relationship	Before Changes (Initial Erd)	After Changes (Final Erd)
Pets to Apartments	Pets to Residents	Many to One relationship from Pets to Apartments with Pets having optional participation and Apartments having mandatory participation.	Many to One relationship from Pets to Apartments has been removed and instead many-to-one relationship has been made from Pets to Residents with Pets having optional participation and Residents having mandatory participation.