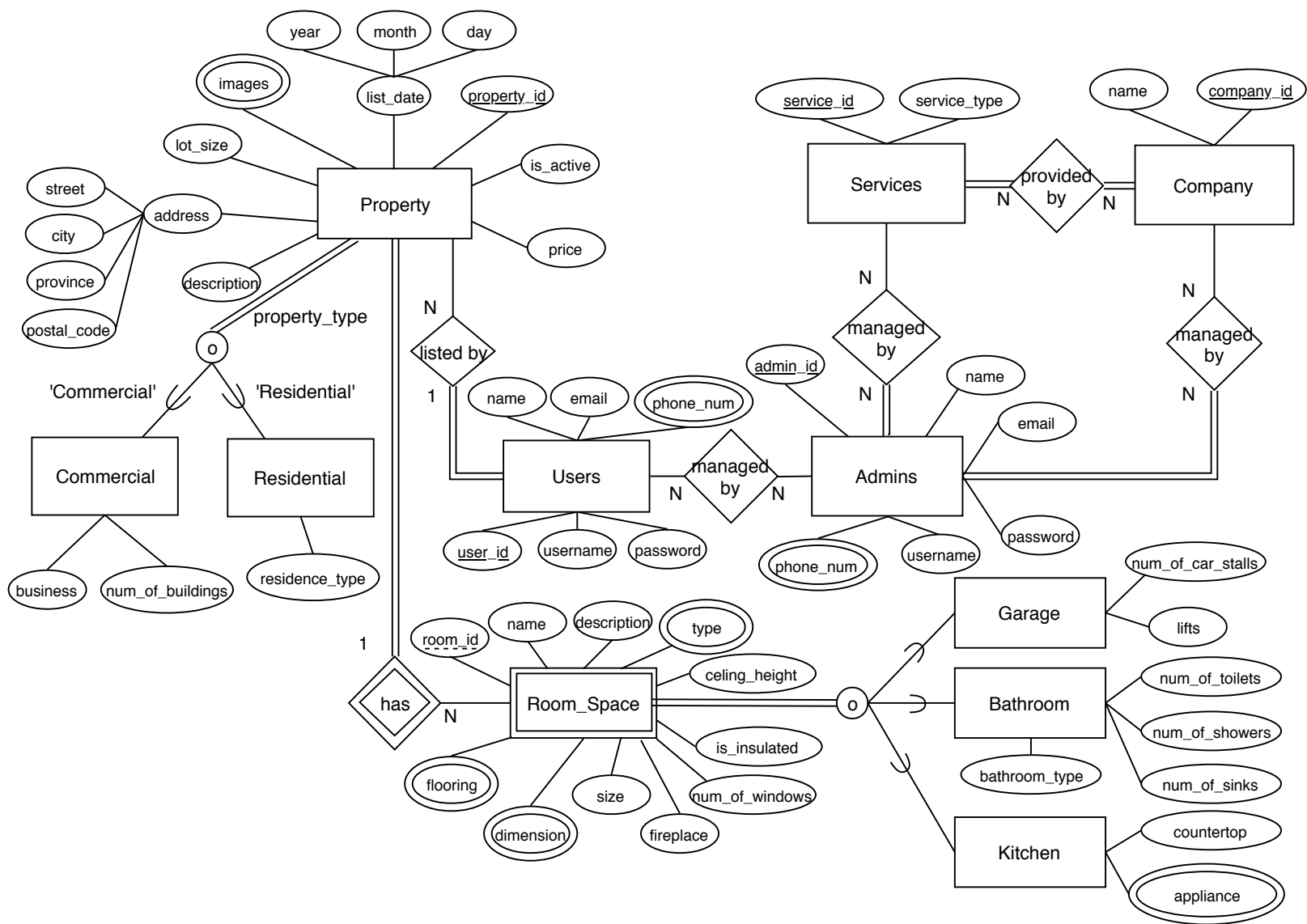


# WelcomeHomeAB Enhanced Entity Relationship Diagram



## List of Assumptions and description of the relationships

1.

Diagram 1 shows the specialization of the **Property** entity into **Commercial** and **Residential** entities. The **Property** entity is connected to both **Commercial** and **Residential** entities via an overlapping specialization relationship, indicated by a circle with a vertical line and a double line connecting to each subclass.

A property can be specialized as residential or commercial; a property could also be a combination of the two hence the overlapping constraint. Furthermore, a property must be a member of either commercial, residential, or both. In other words, the relationship between property and its subclasses can be classified as overlapping-total.
2.

Diagram 2 shows the relationship between the **Property** entity and the **Room\_Space** entity. The **Property** entity is connected to the **Room\_Space** entity via a **has** relationship, indicated by a diamond labeled 'has'. The relationship is 1:N, with a double line on the **Property** side and a double line on the **Room\_Space** side.

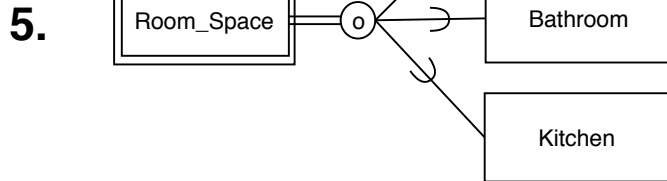
A property will have have many room spaces, and each room\_space is has a defining relationship with a property it is assigned to; this means that each room\_space can only have one property.
3.

Diagram 3 shows the relationship between the **Property** entity and the **Users** entity. The **Property** entity is connected to the **Users** entity via a **listed by** relationship, indicated by a diamond labeled 'listed by'. The relationship is N:1, with a double line on the **Property** side and a double line on the **Users** side.

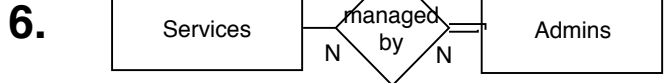
A property is listed by an user registered for the web service. As such, a property has a complete constraint with a user. A user can list many properties, but a property can only have one user.



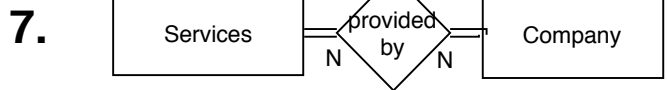
A user profile can be managed (for example, password reset) by an admin. Both entities in this relationship has optional participation. This is because a user can register for the web service without the need for an admin. The many-to-many constraint between the two entities is because a user can be managed by many admins and one admin can manage many users.



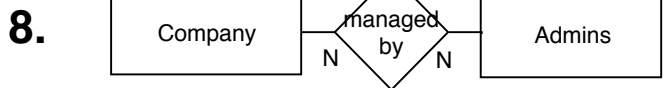
A room\_space can be specialized in to a garage, bathroom, kitchen or an overlap of the the attributes in any of the specialization. A room\_space must also be one of its specializations as denoted by the total participation constraint.



A service must be listed by an admin. Therefore, each service listed on the web service keeps track of the admin who listed it. Once listed, a service can be managed by many admins. Additionally, an admin can list many services.



A service must be provided by a company, and each company listed on the website must have a service associated with it; this explains the complete constraint on both entities. The same service can be provided by many companies and a company can provide many services hence the many-to-many relationship.



This relationship is very similar to the relationship between services and admins. A company is listed by an admin and the company keeps track of the admin who listed it. Once listed, a company can be managed by many admins. Furthermore, an admin can list many companies.