Modeling Exercises

In 3rd Normal Form, describe the entities and their attributes as tables and columns, as well as their relationships and cardinalities.

The model must efficiently answer the questions derived from the above requirements

Exercise 1

The homeowners association "Edificio XYZ" is looking for a database to manage its daily activities. The community includes several buildings in the same area, each of which has multiple floors, and each floor has several apartments. Owners may have one or more apartments in different buildings.

In addition, the community needs to manage information about common areas, such as the swimming pool, gym, garden, and meeting room. It is necessary to keep a record of community expenses, including maintenance costs, cleaning and security services, as well as the monthly contribution of each owner.