



# Entity-Relationship Diagram: Estate Agency

Design an entity / relationship diagram for a real estate agency in order to manage the information related to its portfolio of flats for sale.

- a) Each of the flats that are pending sale has been assigned a flat code that identifies it. In addition to this code, we want to know the address of the flat, the area, the number of rooms and the price. They have these flats classified by zone (because their customers are sometimes only interested in the flats in a certain area) and they want to know in which zone each flat is located. Zones have a zone name that is different for each zone in the same town, but may match in zones of different towns. Sometimes it is the case that in some of the zones there is no flat pending sale.
- b) We want the number of inhabitants in towns. Also, we need to know which zones are adjacent (because, if we do not have flats in a zone that a client wants, we can offer those in other zones bordering the first one). Please note that there may be zones without any other border zones in some small towns that consist of a single zone.
- c) The flats have coded various characteristics, such as having an elevator, being outside, having a terrace, etc. Each feature is identified by a code and has a description. For each apartment we want to know which features has. In addition, we want to be aware of the owner or owners of each flat.
- d) We also need to have information about their current clients looking for a flat (if two or more people are looking for a flat together, only one of them is stored as a customer). In particular, it is interesting to know the zones where each client is looking for a flat (only if they have a preference zone).
- e) An agent is assigned to each client to take care of him/her. We want to keep track of the current customer assignments of the real state agency.
- f) Agents, clients and owners are identified by a person code. Of all them we want to record their name, address and phone number. In addition, of the agents we want to have the Social Security number and salary, and of the owners, the NIF.
- g) Finally, in order to help schedule and consult the visits that customers make to the flats for sale, we want to save information on all the visits corresponding to the customers and the current flats. Each visit requires the client, the flat and the specific time the visit begins. We understand that the time of the visit is the date and time of the day. It should be noted that the same customer may visit the same apartment several times to make sure that they like it or not. In order to avoid conflicts, visits from different clients to the same apartment and the same time are not going to be scheduled.

**IMPORTANT:** When prerequisites are not enough, you can make the assumptions you believe necessary for the model proposed.