*The University Accommodation Office Case Study.*

The director of the University Accommodation Office requires you to analyze a database to assist with the administration of the office. The requirements collection phase of the database design process based on the Director’s view has provided the following requirements specification for the Accommodation Office database.

* + The data stored on each full-time student includes the matriculation number, name, home address(street, city/town, postcode), date of birth, gender, category of student(for example, first year undergraduate, postgraduate), nationality, smoker(yes or no), special needs, any additional comments, current status(placed/waiting), and what course the student is studying on.
  + The student information stored relates to either those currently renting a room or those on the waiting list. No other category of student is required by system. Students may rent a room in a university owned hall of residence or student flat. These are the only buildings where students renting a room can stay and each student is assigned only a single room. When a student joins the University he or she is assigned to a member of staff who acts as his or her advisor of studies.
  + An advisor of studies has to supervise many students from different departments. The advisor of studies is responsible for monitoring student’s welfare and academic progress. The data held on student’s Advisor includes their full name, position, name of department, internal telephone number, and room number.
  + Each hall of residence has a name, address, telephone number, and a hall manager who supervises the operation of the hall. The halls provide only single rooms, which have room number, place number, and monthly rent rate. The place number uniquely identifies each room in all the halls controlled by accommodation office and is used when renting a room to a student.
  + The Accommodation Office also offers student flats. These flats are fully furnished and provide single room accommodation for groups of 3,4 or 5 students. The information held on student flats includes a flat number, address, and the number of single bedrooms available in each flat. The flat number uniquely identifies each flat. Each bedroom in a flat has a monthly rent rate, a room number, and place number. The place number uniquely identifies each room available in all student flats.
  + New lease agreements are negotiated at the start of each academic year with a minimum rental period of one semester and a maximum rental period of one year, which includes 1,2 and the Summer semester. Each individual lease agreement between a student and the Accommodation Office is uniquely identified using a lease number. The data stored on each lease includes the lease number, duration of the lease, name, address details of the hall or student flat, the date the student wishes to enter the room, and the date student wishes to leave the room.
  + Student flats are inspected by staff on a regular basis to ensure that the accommodation is well maintained. The information recorded for each inspection is the name of the member of staff who carried out the inspection, the date of inspection, an indication of whether the property was found to be in satisfactory condition and any additional comments.
  + Some information is also held on members of staff of the accommodation office and includes the staff number, name, home address(street, city/town, postcode), date of birth, gender, position and location.

**Create an Enhanced Entity-Relationship Model to represent the data requirements of this problem. Specify the cardinalities of relationships and all important constraints.**