

Step 1: Create classes of objects

The following describes a domain of a database for an international chain of hotels.

An international chain of hotels would like to create a simple database to store information about its **activities**. The chain of hotels owns a number of **hotels** in different **countries**. A **hotel** is identified by its address that consists of a country name, city name, street name and building number. The **hotels** are also described by a unique phone number, unique email address, and a unique link to a website. All **hotels** located in the same country and in the same city have unique local names. It may happen that two **hotels** located in two different cities have the same names.

A **hotel** has a number of **employees**. An **employee** is described by an employee number which is unique within a hotel, first and last name, date of birth, emergency contact name, emergency contact number, and position occupied at a hotel. Each employee works at only one hotel. It may happen that two or more employees working in different hotels may have the same employee number.

A hotel offers different types of rooms for hotel **guests**. A **room** is described by a number unique within a hotel, area, type, and price per night.

The customers book the rooms in the hotels. A **booking** is described by a room type, a planned arrival date, a planned departure date, the first and last name of a customer, and credit card type and number. A **booking** is identified by booking date and time. When a booking is cancelled, the cancellation date and cancellation reason are appended to its description, and the booking is moved to a class of **cancelled bookings**.

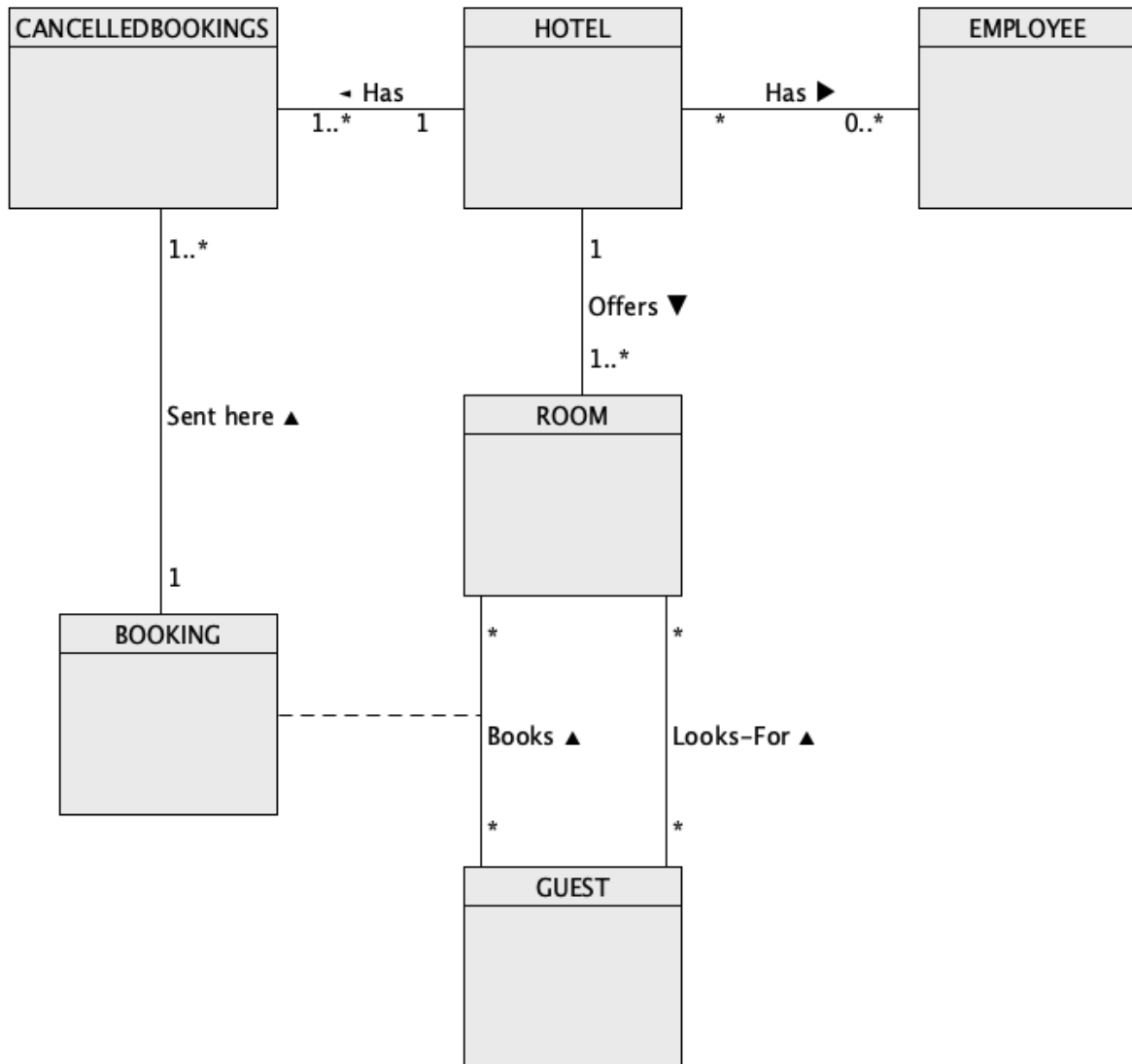
On arrival day a hotel records information about the hotel guests who checked in. Such information includes the first and last name of each hotel guest, date of birth, nationality, type, document number of identification document, and check-in date and time. Then, the hotel guests are assigned to their rooms. Of course, the hotel guests who check in to a hotel must have a valid booking performed beforehand.

On the check-out date, a hotel records a bill, i.e. the total amount of money charged for a stay and the services used in a hotel.

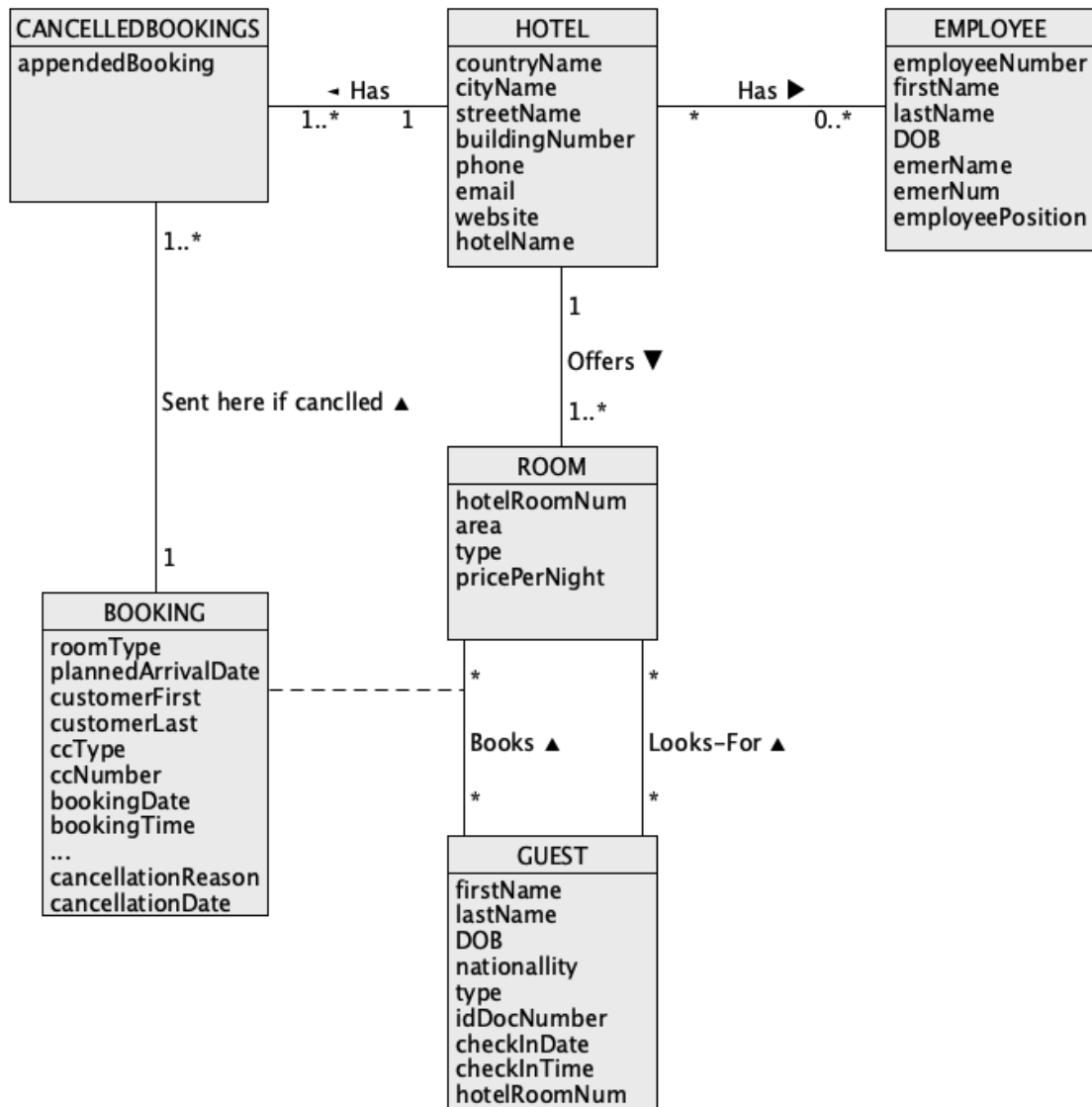
Class Names

- HOTEL
- EMPLOYEE
- GUEST
- BOOKING
- ROOM
- CANCELLEDBOOKINGS

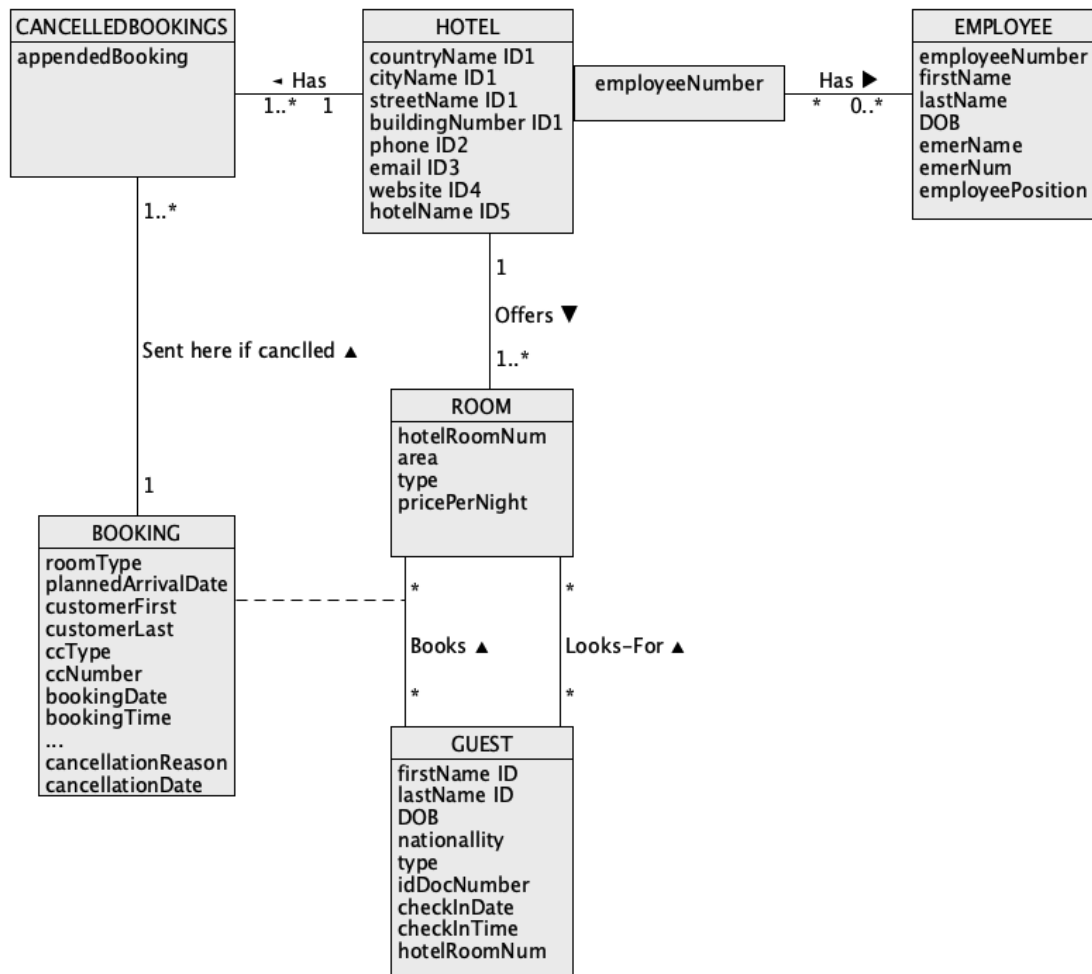
Step 2: Create associations and association classes



Step 3: Create attributes and link attributes



Step 4: Create identifiers and qualifications



Step 5: Create generalizations

