

End Assignment Diagram Portfolio

The Toucan Giant is a new hotel chain that will soon open its first hotel. The chain would like to track all its booking processes in one system.

The hotel has two types of rooms: a normal room and suites. The area of both types is stored. For suites, it also stores whether it has a jacuzzi. The price per night is then calculated as follows: for a room it is the area times €10. For a suite it is the area times €15. Then €50 is added if the suite has a jacuzzi. A suite also requires a deposit. The deposit is also per night and is added to the total price.

A guest can place a booking in the system. For this he registers with his name, address, email, and phone number. During the booking, a guest chooses a room. In addition, the guest indicates how many guests he is coming with. This is divided into three categories: children up to 4 years, guests up to 18 years, guests 18 years and older. While booking, it must be indicated if breakfast is to be included. For children up to 4 years old, breakfast is free. Otherwise, it costs €15.95 p.p.p.n. Of course, the guest also specifies the arrival date and departure date. The guest will receive a confirmation of the booking by e-mail.

Bookings can also come in through Booking.com. The guest has then entered their details there and they are directly transferred into the system.

When the guest arrives at the hotel, the receptionist checks the guest in. To do this, the guest must show their identification. If it is invalid the check-in will not proceed. Once checked in, a signal goes to housekeeping that someone has checked in. A signal also goes to the restaurant so they can prepare breakfasts. The transmission of signals should be set up as generically as possible, so that possibly later other entities can also receive signals when guests check in. The guest must also pay during check-in. At check-in, guests must also indicate if they want to use the pool. If this is the case, extra towels will be provided. The guest can optionally indicate if they want the cleaning skipped or if they only want clean towels. The time of check-in should also be stored.

Housekeeping keeps a list of all activities. An activity consists of the room that needs to be cleaned, the guest's preferences and its status. A status has three possibilities: To do, Doing or Done.

The owner of the hotel wants to be able to see all bookings and, of course, revenue.

Furthermore, the restaurant wants to be able to see how many guests are expected at breakfast in the morning.

Tip: for signal passing: look for the Observer pattern.

Implement the following

- From the text above, make the following diagrams:
 - Use Case Diagram
 - Class Diagram
 - An Activity Diagram of only the check-in process
 - A Sequence Diagram of only the check-in process