

Lab 5

A company that manages vacation parks (such as Centerparcs, Sunparks, etc.) would like to have a new **booking and customer management system**. They would like to hire a company to develop this. As a small software company you would like to win this contract. For this purpose it is necessary, after an initial discussion with the customer, to create a use case diagram in which the agreed functionality is shown. This also serves to avoid later discussions. Internally in your company you also need a class diagram to divide the work and make an estimation of time and therefore budget.

After a couple of conversations with the person responsible for the project in said company, the following has emerged:

The purpose of the application is to manage and facilitate the rental of various accommodations in the vacation parks.

The various parks and their accommodations must be managed from this system. This means that the different parks must be able to be created, modified and deleted. A park can also offer a number of additional services, such as a subtropical swimming paradise, bicycle rental, pedal boat rental, bowling alleys, children's paradise or a sports hall. Each park must be able to create, adapt and remove accommodations. An accommodation can be a hotel room or a bungalow. They have a number of general features, such as ID, luxury level (comfort, premium, VIP), the maximum number of people that can stay there, surface area, bathroom with shower or bath, Each accommodation itself also has a number of unique features. For example, a hotel room is located on a certain floor, it is situated on a certain location in the hotel (road side, lake side, ...), it has a number of beds, there is the presence of a crib, A bungalow has a number of bedrooms, and depending on the level of luxury, has a Blu-Ray player with surround system, a BBQ, bed making service, breakfast service, The level of luxury, and therefore the presence of extras, must be adjustable.

They also want to keep the customers and their bookings in the system. Customers can register themselves and book accommodations. A booking consists of a maximum of three accommodations in one park. Customers can also change their bookings, but not delete them. In order to do so, they need to contact vacation park employees, who can then delete them. When they want to book an accommodation, they must be able to enter a number of search terms in order to be able to filter. For example, they must be able to enter whether they want to rent a hotel room or bungalow, for how many people it is and what level of luxury they want.

All bookings must be kept in the system with the customer's information, the accommodations that have been booked and any additional services of the vacation park (activity pass, sports pass, bike rental, swimming pass, ...) that have been booked.

The owner of the park, the employees as well as the customers must be able to work with the system. The owner takes care of the management of the vacation parks (create, modify, delete) and the accommodations (create, modify, delete). Employees can also modify accommodations but not create or delete them. They can also manage customers (create, modify, delete) and they can do the same with

bookings. Customers can register themselves in the system and modify but not delete their data. They can also book accommodations and modify their bookings. Deleting is only for the employees.

Make sure you are complete in drawing your diagrams. Not all data are explicitly mentioned, so you may make an assumption here and there.