
Product Requirements Document

Submission 1 Specification

Alphecca
SWEN90007 SM2 2021 Project

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Revision History

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1. Introduction

1.1 Proposal

This document describes an implementation of an online hotel booking application that allows customers to book stays at hotels. It specifies the use cases, actors to be implemented, and the system's domain model for the product of hotel booking system. This document is designed as a guide to help build, launch, maintain and market the product.

1.2 Target Users

This document is mainly designed for the development team.

1.3 Conventions, terms and abbreviations

This section explains the concept of some important terms that will be used throughout this document. These terms are detailed alphabetically in the following table.

Term	Description
HBS	Hotel Booking System

2. Actors

Actor	Description
Administrator	Administrator is a user role of the system, they are the HBS provider that aggregate all hotels created in the system. They can also view all the stays from other users to monitor the vacancy.
Customer	Customer is a user role of the system. This user can book hotels, view, and manage their bookings. This user can also search any hotel by hotel name or postcode
Hotelier	Hotelier is a user role of the system. This user can register and manage their hotels with different configurations in the system and can manage bookings received from the customers.

3. Use Cases

3.1 Textual Use Cases

Case 1: Customer/Hotelier Register a New Account

Actors

Primary: Customer/Hotelier

Supporting: Hotel booking back-end System

Basic Flow

A customer/hotelier uses the Alphecca Hotel Booking App for the first time, he/she opens up the register page, chooses an associated role, provides any necessary valid identity information to verify whether he/she is a customer role or hotelier role, and enters the email and password to register a new account. The account details will be stored in the back-end system.

Case 2: Customer/Hotelier/Administrator Logs in the Account

Actors

Primary: Customer/Hotelier/administrator

Basic Flow

A/An customer/hotelier/administrator has an existing account on Alphecca Hotel Booking platform. The customer/hotelier will need to enter an email address and password to access full functionality of the application. After entering the password, The system will verify it and display any error message if it failed this process.

Case 3: Customer Books Hotel Room

Actors

Primary: Customer

Supporting: Hotel booking back-end System

Basic Flow

A customer goes into the website and then searches for hotels based on the hotels' names or the postcode. With all the resulted hotels, the customer can filter some of the hotels out based on the selected features such as must include swimming pool and so on. Then the customer is able to have a look at the details of each of these hotel rooms. If there is a preferable hotel room, the customer can check for the availability for a preferable date and then make a reservation by providing his/her personal details. The system will then also check for the availability of the hotel and display the booking result once the reservation is confirmed. The success order detail will be uploaded to the backend system.

Case 4: Customer/Hotelier Views Bookings

Actors

Primary: Customer/Hotelier

Basic Flow

The customer goes into the system to see his/her recent bookings. If a booking is not completed, the customer is able to modify it, such as cancel the order or reschedule for check in date. A hotelier is also able to view bookings from their customers to help them modify or cancel the order.

Case 5: Hotelier Registers Hotel Rooms

Actors

Primary: Hotelier

Supporting: Hotel booking back-end System

Basic Flow

The hotelier enters the hotel room descriptions, which will be recorded into the backend system. However, if there is a similar hotel room existing in the system already, the hotelier can just reuse the existing template and change some details.

Case 6: Administrator Manage the Application

Actor

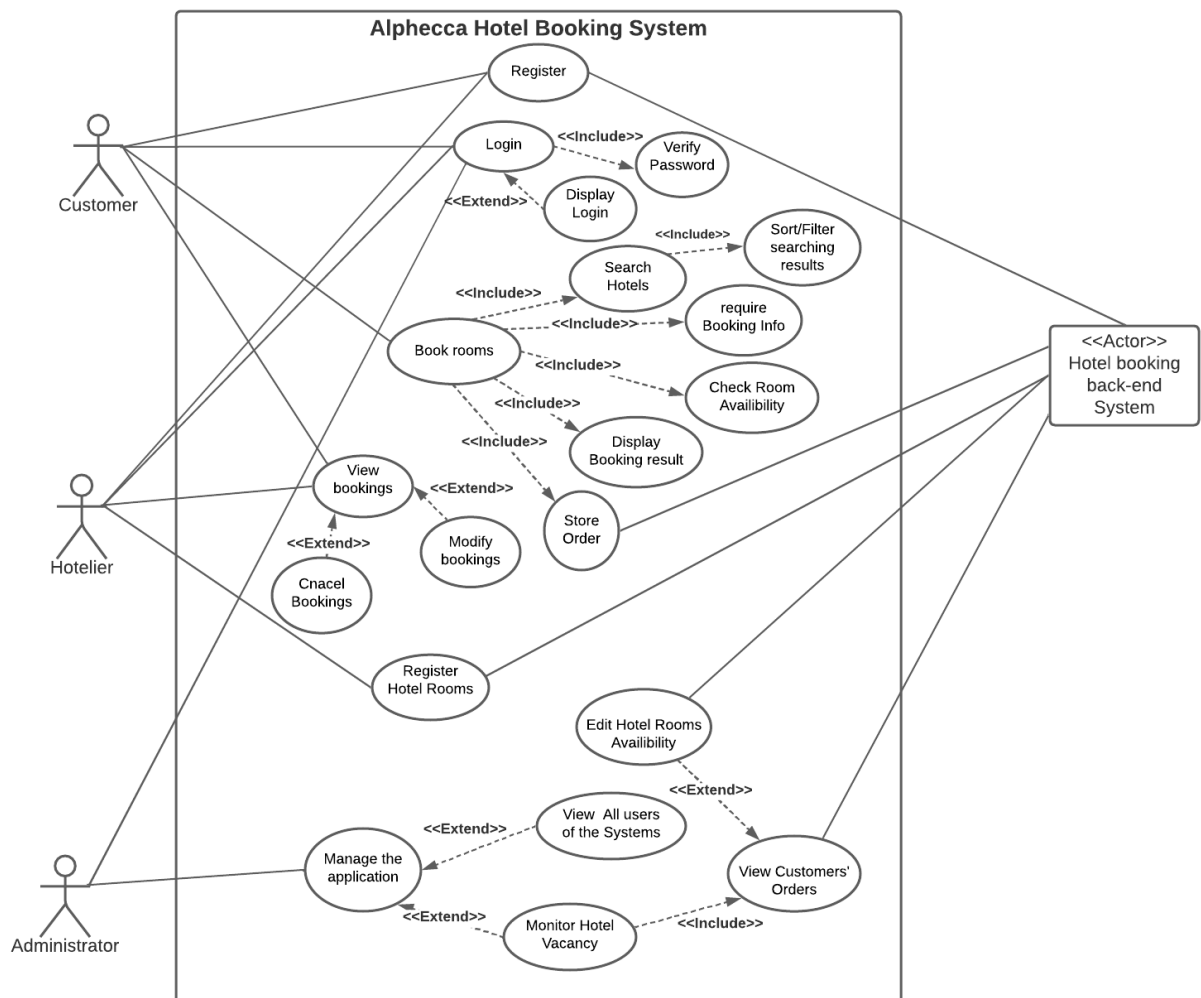
Primary: Administrator

Supporting: Hotel backend system

Basic Flow

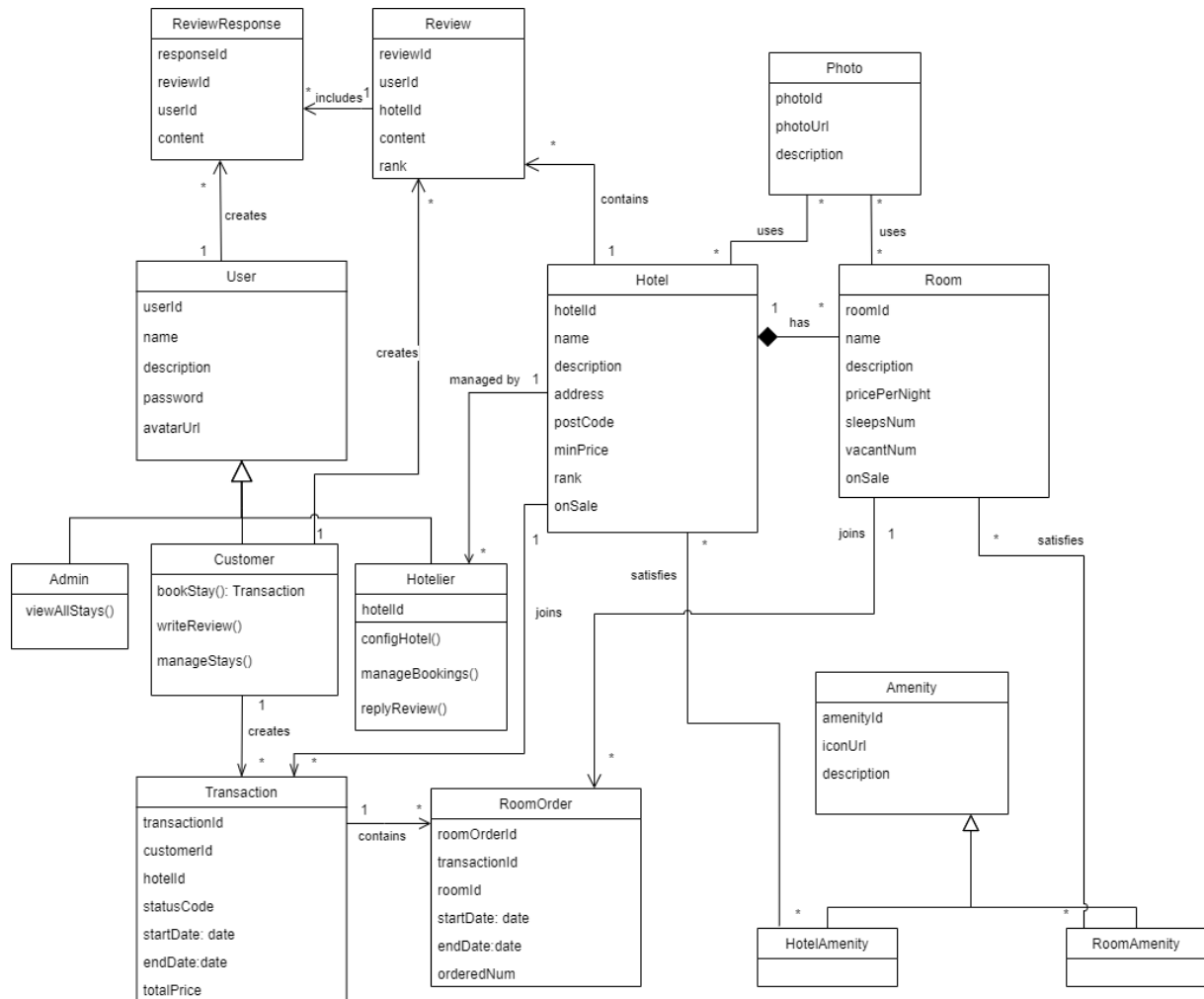
The administrator goes into the system and checks all the users within the system. He/she can monitor the hotel vacancy by checking all recent orders stored in the backend system. Once the administrator finds any problem related to the hotel vacancy (i.e. the hotel still has one room that can be booked but the system doesn't show), he/she is allowed to edit availability of the hotel room.

3.2 Use Case Diagram



4. Domain Model

4.1 Domain Model Diagram



4.2 Domain Model Description

4.2.1 Domain

Object	Description
Review	Review is the feedback for the hotel from Customer.
ReviewResponse	It is the response for one review, it can be created by all users.
User	This represents the general user. Users then can be further categorized as three types.

Admin	Admin is one role of the system, they are the HBS provider that aggregate all hotels created in the system, they can also view all users and stays users have booked.
Customer	Customer is a user role of the system, they can book hotels, view, and manage their bookings.
Hotelier	Hotelier is a user role of the system; they can register and manage their hotels with different configurations in the system and can manage bookings they receive from customers.
Transaction	Transactions are created when customers book stays, transactions are owned by the customers and also the respective hotel. One Transaction can hold multiple room orders.
RoomOrder	It is the domain for room orders in one transaction.
Photo	It is the domain for photo resources, it records photo url and the entity it is attached to. The same photo entity can also be reused by different hotels and rooms.
Hotel	It is the domain for hotel items.
Room	It is the domain for room items. It is the necessary component of the hotel domain.
Amenity	This represents the general amenity, amenities can be further categorized as two types.
HotelAmenity	HotelAmenity describes facilities or amenities a hotel has in a public area. It may contain customized fields in the future extension.
RoomAmenity	RoomAmenity describes facilities or amenities a room has. It may contain customized fields in the future extension.

4.2.2 From General type to Sub types

General type	Sub type	Description
User	Admin	User is an abstraction of all roles in the HBS, users share fields among all roles in the system, while each subtype may have their own attributes or behaviors for future extension.
	Customer	
	Hotelier	
Amenity	HotelAmenity	Amenity is an abstraction of all amenities in the HBS, of which they share attributes among all amenities. ub type may have their own attributes for future extension.
	RoomAmenity	