**1.INTRODUCTION**

Everybody wants to have a good holiday according to their joy and demands without paying much money. In many current booking systems, room features and price of a room are stated by default and you cannot make changes by yourself. Therefore, we want to create a hotel reservation system that allows users to make their booking easily and in a more proper way. User can specify his/her room features and other services like housekeeping, usage of restaurants, laundry, etc.

The report structure is the following: Section 2 describes the case description. Section 3 includes the functional, non-functional requirements and constraints of the system. Section 4 covers the Use Case models and their descriptions. User interface is shown in Section 5. Section 6 shows class diagrams, dynamic models of the system which are state chart and sequence diagram with scenarios.

**2.OVERVIEW**

The system has three basic operation, which are make booking, specification of room features and cancel booking. These operations can be used by customer, who wants to stay in the hotel and also receptionist working for the hotel. In the hotel, there are five floors and at the each floor there are six rooms. Single rooms are in the first floor, double rooms are in the second floor so on. And also, odd numbered rooms have sea view and even numbered rooms have forest view.

Make Booking Part: When the user makes booking, first of all selects the check in and out dates and numbers of people in the room or rooms. User can make booking at most for three rooms for the same date range.

If there is an available room that has specified features, program passes the next step.

If there is no available room, other choices can be shown for user to make different booking.

Specifications of Room Features Part: As mentioned before, user can add or cancel some room features or other services by yourself and according to this process, new price is computed. However, after this process receptionist must check and give an approval to provide specified features.

Cancel Booking Part: Customer has a right to cancel his/her booking. Also, in this part user can specify a new booking by cancelling the first one. And also, receptionist can cancel a booking instead of customer or add a new booking after cancellation of previous one.

**3. REQUIREMENT ANALYSIS**

**3.1. Functional Requirements**

In this system, there two types of users, which are customer and receptionist. They have different roles and authorisations on this system.

***For Customer:***

* The customer should be able to select check in/out dates and number of people in rooms.
* The customer should be able to make booking at most three rooms for the same date range.
* The customer should be able to informed about rooms in hotel and select a room or rooms.
* The customer should be able to select features to his/her room.
* The customer should be informed about his/her reservation.
* The customer should be able to cancel his/her reservation.
* The customer should be able to make his/her payment.

***For Receptionist:***

* The receptionist should be able to make booking for a customer.
* The receptionist should be able to check and give approval to a room’s features that determined by customer.
* The receptionist should be able to view information about a specific customer and also about all customers in the rooms.
* The receptionist should be able to cancel a reservation.
* The receptionist should be able to view all rooms.
* The receptionist should be able to view all reservations made for a specific room.
* The receptionist should be able to move all reservations of any room to another room that fits with it, and delete the old room’s all reservations.
* The receptionist should be able to make payment for a reservation of a customer.
* The receptionist should be able to move a certain reservation for a room to another room.

**3.2. Non-Functional Requirements**

* The system should response quickly at each step (1 second), because the main purpose is to make reservation quickly and efficiently.
* Customer should be informed about other choices.

For example, if there is no available double room with sea view, other alternatives can be shown to the customer like double room with forest view instead of a sea view.

* Program should be learned quickly by customers and receptionist, and used easily.

**3.3 Constraints**

* The program will be implemented in Java.
* The program must be a desktop application.

**3.4 Scenarios**

**Scenario Name**: Make booking

**Scenario**: Ahmet wants to make a booking for his friends and himself for 3 three rooms. He starts to use the system first of all, he selects the check in/out dates and number of people in a room which is one for himself, he sees all available rooms in hotel and he selects his first room. After that, he selects dates and number of people in rooms for the second and third rooms which are also single rooms for the same date. He is informed about his reservations and rooms’ features, and make booking is finished.

**Scenario** **Name**: Make booking

**Scenario**: Mehmet wants to make booking from 6th August to 16th August for double room with sea view. He selects check in/out dates and number of people room, but there is no available room for his choices, so program shows other options like double room with forest view or the closest date which is 8th August for an available room that has the same options with Mehmet’s choice. Mehmet can make booking for double room with forest view easily. And Mehmet is informed about his reservation.

**Scenario Name**: Make booking

**Scenario:** Irem wants to make booking for her whole family, so she tries to add reservations for more than 3 three rooms in the same date range. However, the system does not accept this operation and she is informed about this situation.

**Scenario Name:** Add specifications

**Scenario:** Murat wants to make booking for a double room. He selects check in/out dates and number of people in the room, and then he chooses an available room from the hotel. However, he decides to add new feature to his room. He selects the mini-bar option and cancel the housekeeping service, then his reservation is approved by the receptionist, and booking is finished, and Murat is informed about his reservation.

**Scenario Name**: Cancel booking

**Scenario:** Eda was made booking in hotel, but she cannot go holiday in specified dates because of her job. Therefore, she enters the system and cancels her current booking and add new booking for herself.