Hotel Reservation System
Vision

Revision History

Date	Author	Description	Version
05/04/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	First version	v 1.0
12/04/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated according to Iteration1 reviews	v 1.1
17/04/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Small grammar mistakes fixed.	v 1.2
03/05/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated according to Iteration2 reviews	v 1.3
20/06/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Small grammar fixes	v 1.4

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1.   Introduction

Global hotel room count for nearly 200.000 hotels has reached nearly 17 million in 2018 and the global accommodation industry continues to grow. As a consequence of this, the starvation for automation is growing in the accommodation industry concordantly to grow in the overall industry. In addition to this, modern travelers are eager to use technological methods of booking rooms and requesting additional services. Therefore, hotel reservation systems become an essential asset, rather than a nice to have function during the world of high-tech solutions. In addition to this, during the era of pandemic, the urgency of the automation and digitalization of the systems became a crucial part of being competitive. Customer management is the most critical aspect of the hotel management business since customers are a resource of both income and sustainability of the future sales. Therefore, in order to be more customer centric, hotel managers have an ambition to store crucial information about the guest in order to increase the customer loyalty through customer satisfaction. Storing this information and managing the information efficiently is only possible with hotel management software. Hotel reservation systems are useful not only for customer satisfaction but also for increasing the efficiency of the business processes. Due to the fact that, hotel reservation systems are great assets to keep up with competition in the market.

In that sense, this document aims to describe high level definitions of problems and expectations of a typical hotel reservation system.

2.   Positioning

2.1   Problem Statement

The problem of	In a typical hotel, room number and room segments have already been defined. However, potential hotel guests do not know which hotel rooms are available in the hotel. Also, among one of the many duties of the receptionists is editing rooms in order to manage the hotel rooms.
affects	Hotel Guests, Receptionist
the impact of which is	The potential hotel guests may fail to finalize their reservation, thus decreasing customer satisfaction is expected and mismanagement of rooms leads to potential inefficiency in hotel management.
a successful solution would be	The hotel reservation system allows hotel guests to choose available hotel rooms from a kiosk in the lobby and receptionists to edit these hotel rooms through the hotel reservation system. After reservation the guest receives entry card from the receptionist to access to his/her room. This information is preserved for further usage in marketing, other customer relations activities.

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The problem of	In a typical hotel, available services for guests have already been defined. However, guests do not have direct access to these services. Also, receptionists may edit services to make sure that all guests receive required services.
affects	Guests, Receptionist
the impact of which is	Guests may not be able to access desired services. Therefore, customer loyalty may be negatively affected.
a successful solution would be	The hotel reservation system allows guests to choose available hotel services and receptionists may be able to edit services information to direct required services to the guests through the hotel's kiosk in the lobby or touchscreens in their rooms. The guest can use entry card to keep record of his/her supplementary service usage. This information is preserved for further usage in marketing, other customer relations activities.

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The problem of	In a typical hotel, guests make the payments before or after the delivery of service. The payment is done manually by hotel guests. Therefore, receptionists also store payment information manually. This is an inefficient method to handle the payments and hard to manage the information.
affects	Guests, Receptionist
the impact of which is	Mismanagement of accounts leads to potential financial loss for the hotel.
a successful solution would be	The hotel reservation system allows hotel guests to make payment before or after the reservation through the hotel's kiosk in the lobby and receptionists approve this payment. This information is preserved for further usage in the accounting department.

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2.2   Product Position Statement

For	Guests, Receptionists
Who	Wants to make/handle a reservation for the hotel service, whether it is a room, cleaning or other services such as meals, etc.
The (product name)	is a platform product of the Hotel Reservation System
That	Reduces face-to-face communication that provides improvement of business processes and high-quality service in order to maintain competitiveness, automatize the reservation and delivery of hotel services in order to increase customer satisfaction and process efficiency
Unlike	Applications that perform only one function: room selection, cleaning, etc.
Our product	Free, easy-to-use and provide better performance with many functionalities.

3. Stakeholder Descriptions

3.1 Stakeholder Summary

Name	Description	Responsibilities
Analyst	Manages the relationship with the customer and other stakeholders to ensure that customer needs translate into project requirements.	- Understands the problem and consecutive needs of customers. - Specifies system-wide requirements. - Defines use-case scenarios.
Project Manager	Responsible for planning of the project, coordination of interactions with stakeholders and ensuring the team deliver the project objectives.	- Plans the project activities on the iteration timeline. - Manages the iteration activities and makes people deliver the planned objectives. - Guides the team to achieve results.
Software Architect	Responsible for specification of overall system's technical expectations and making technical decisions including design and implementation.	- Refines technical capabilities in terms of customer requirements. - Identifies rational technical solutions to ensure that technical risks are minimized where the solution is validated. - Defines proper software components to cover architecturally significant requirements.
Developer	Responsible for implementation of the requirements into code while including architectural and design concepts.	- Builds code fragments and implements design concepts to deliverable code items - Performs unit and unit integration(component) tests in order to validate the design concepts. - Review and conform release controls to assess the validity of the implemented solution.
Test Engineer	Identifies the test concepts and runs the necessary tests in order to validate the system.	- Creates test cases for system validation. - Implements tests and performs automatization of the tests where it is available. - Runs the tests and reports to other stakeholders.
Quality Assurance Team	Review the all-work pieces and give feedbacks to the related stakeholders	- Reviews all documents and give feedbacks and improvement suggestions to the development team - Reviews implemented codes and test cases and give feedbacks and improvement suggestions to the development team - Creates checklist for evaluations
Customer	Represents the hotel whose expectations must be fulfilled by the project outputs.	- Owner of the Hotel Reservation System who sets some goals to use the system.
Users	Represents the hotel guests and receptionists who manipulate the system to automate some of the day-by-day tasks.	- Install the system in required usage points. - Uses the application to provide high-level needs such as accommodation or providing other services to be satisfied.

3.2   User Environment

The target users of hotel reservation systems are hotel receptionists and guests of the hotel, who are interested in booking a broad variety of services. The number of users is varying between season and off-season times. Receptionists are going to use the application on the daily basis in order to monitor/ approve/cancel/edit incoming booking requests. However, there is no constant pace for individual hotel guests for using the application. One reservation can take up to 1 working day in order to be completed. In the best case, the order may be completed within 10 minutes.

The hotel reservation system will be developed as a console application. Based on that, the application is intended to be used by receptionists from PC, and hotel guests - by kiosks in the lobby or touchscreens in their rooms. In addition, in the later stages of development, when console applications will be released, basic functionality may also be provided in mobile applications.

Currently there are plenty of booking applications in the hotel management industry, however the aim of this project is to create standalone simple yet useful applications to improve the business process of the hotel company and provide more safe conditions for communication between customer and service for time that will follow after pandemic.

4.   Product Overview

4.1   Needs and Features

Features	Priority	Need	Planned Release
Users should be able to sign up/ sign in to the Hotel Reservation System. Two levels of access should be available in the system - for hotel guests and for the receptionists.	High	Login system with different access rights; Create user account	Release 1
All users are allowed to manage their accounts - change password, update personal information. Users with a higher level of access - receptionists - are able to manage other users' accounts.	Medium	Retrieve, Update and Delete Accounts	Release 2
Hotel Guest should be able to perform a reservation of the room for the desired number of days	High	Make a Reservation of room	Release 1
User should be able to make a reservation of supplementary service, available in the hotel	High	Make a reservation for Hotel Services (Restaurant, Sauna etc…)	Release 2

Users should be able to perform payment operations through the Hotel Reservation System with cash	High	Cash Payment	Release 1
Users should be able to perform payment operations through the Hotel Reservation System with a credit card.	High	Credit Card Payment	Release 2
User should be able to make a request for changing a room	Medium	Update reservation	Release 2
User should be able to order cleaning service	Medium	CRUD operations of cleaning schedule	Release 1
The receptionists should be able to see the list of current reservations	High	Display current reservations	Release 1
Basic functionality of the Hotel Reservation System must be accessed remotely in addition to in-hotel services.	Medium	Make a Reservation of room remotely.	Release 3

5. Other Product Requirements

Requirement	Priority	Planned Release
Hotel Reservation System should run on Microsoft Windows, Linux, and macOS.	High	Release 1
The system shall provide access to the database with no more than 2 seconds latency.	High	Release 1
The system must be able to complete 75% of currently active transactions within 2 seconds.	High	Release 1
Data of Hotel Reservation System users must be secured. Data privacy will be specified in the General Data Protection Regulation document which will be released in Release 2.	High	Release 2