Hotel Management System

Vision

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# 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 management 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 management systems are useful not only for customer satisfaction but also for increasing the efficiency of the business processes. Due to the fact that, hotel management 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 management system.

# Positioning

## 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 management 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 management system. This information is preserved for further usage in marketing, other 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 management 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. This information is preserved for further usage in marketing, other 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 management 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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## 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 Management 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. |

# Stakeholder Descriptions

## 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 Management 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. |

## 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.

# Product Overview

## Needs and Features

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| --- | --- | --- | --- |
| **Need** | **Priority** | **Features** | **Planned Release** |
| Users should be able to sign up/ sign in to the Hotel Management 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 |
| User should be able to perform a reservation of the room for the desired amount 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 Management System with cash | High | Cash Payment | Release 1 |
| Users should be able to perform payment operations through the Hotel Management 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 |

# Other Product Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement** | **Priority** | **Planned Release** |
| Hotel Management System should run on Microsoft Windows, Linux, and macOS. | High | Release 1 |
| Each operation should be performed within a maximum 2 seconds. | High | Release 1 |
| Data of Hotel Management System users must be secured. | High | Release 2 |
| Basic functionality of the Hotel Management System must be accessed remotely in addition to in-hotel services. | Medium | Release 3 |
| Maintenance of the Hotel Management System must be performed in the most unloaded period, which will be set based on hotel statistics. | High | Release 2 |