



SYSTEMS ANALYSIS AND DESIGN

Group 20 Members

BLESSINGS NYIRENDA CIS/034/19

ROBERT LIMAWO BIT/028/19

CHISOMO NAZOMBE BIT/024/18

THOKOZANI CHIWALE BIT/004/19

REUBEN BSON MYKUYA BIT/106/19

Lecturer

Menard Phiri

mephiri@must.ac.mw

ONLINE HOTEL ROOM RESERVATION SYSTEM

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1 INTRODUCTION

Hotel is an establishment that provides accommodation and other services for paying guest, normally larger than a guesthouse. These hotels help to to accommodate local people, others from outside countries and tourist who perform a lot of business activities to a country. Malawi has at least 500 registered hotels which are located in different parts of the country. Online hotel room reservation system is a web-based online system that will enable users to book rooms, check names and specifications, and location of hotels in Malawi. This system will be linked to each hotel bank account and booking system used in these hotels.

2 PROBLEMS

Guests face a lot of challenges when it comes to booking rooms, knowing location and names of these hotels, just to name a few. Some of the problems that the system will solve are as follows:

2.1 Location of hotels in Malawi

As many hotels are in different parts of the country, it became difficult for customers to identify the location and names of these hotels as they are many in Malawi. Location is based on region and district.

2.2 Hotel standards

Customers do not know the standards and room price of these hotels as some do not meet international standards for international guest and there is no fixed price for hotels.

2.3 Transport costs

As guest travel long distances from one hotel to another so that they may find a hotel that will satisfy them and meet their needs e.g lake side hotels. This increases cost of transport.

2.4 Time wastage

Customers take a lot of time to book a room and travel from one place to another to find a hotel.

3 PROPOSED SOLUTIONS

Online hotel room booking system will solved all the stated problems faced by customers. Some of the solutions include:

3.1 Categorizing hotels regionally

This system will be able to categorize hotels in terms of regions in Malawi and showing the location of these hotels. It will also show physical location of hotels in terms of districts. Google maps will be integrated for this to happen.

3.2 Hotel specifications

The system will show hotel physical infrastructure, room prices and how workers dress. Pictures of workers, hotels and rooms will be available.

3.3 Online hotel room booking/reservation

Customers will be able to book rooms in advance and show duration guests in hotels, also customers will go to these places when all things are in place/sorted.

4 planning

Earlier travelers contacted hotels directly or used a travel agency to make a room reservation. However, with his new system a traveler can make reservation on hotel websites that give them pictures and virtual tours to make their choices. Room tariffs will also be shown on the websites along with deals and discounts. Hence, this system will bring a lot of positive impact on the ground when people want to access hotel services and also to the providers for easy management of offering of the hotel services like room reservation to clients/customers. This system will be developed at a duration of 2 months. The inputs that are required to develop this online system includes web servers, network devices like switches, routers, and hubs as hardware components. Software such as programming languages like java script, HTML, CSS and some information management systems will also be needed. Both client side and server side will be developed internally by programmers in the project team.

The system will achieve the following goals: allow users to make payments from home, make the system more convenient and simple and reducing transportation cost to reach hotel physically to create a reservation.

5 systems requirements

5.1 functional requirements

5.1.1 Name: Registration

ACTOR: Guest

Intention: Guest wants to register on the system. For that the person has to go to the registration page, enter his personal data: name, second name, email, home address, phone number. Then he has to go click on the "REGISTER" button and make sure everything was successful.

5.1.2 Name: reservation creation

Actors: Guest

Intention: To create a reservation a guest must choose the check-in and check- out dates, Room type, and how many children and adults will be visiting.

Alternatives: If a room is not available, then the system will show an error to the guest, informing him that the selected days couldn't be reserved.

5.1.3 Name: Reservation update

Actors: Guest, Administrator

Description: To update the reservation and change room type, number of people or reservation duration a guest has to go to the reservation and then Update. After changes are done administrator must confirm the change.

5.1.4 Name: Reservation cancellation

Actors: Guest, Administrator

Description: Guest can cancel the reservation. For that to happen, an administrator must manually check and confirm the cancellation

5.1.5 Name: Find your reservation

Actors: Guest

Description: Guest goes to his page and searches for the needed reservation

5.1.6 Name: Update credit card data

Actors: Guest

Description: Guest enters the payment method and payment information.

5.1.7 Name: Confirm payment

Actors: Guest

Description: When a guest wants to confirm his payment he finds the reservation and clicks the confirmation button.

5.1.8 Name: Update room status

Actors: Worker, Administrator

Description: Room status gets updated based on the current information.

5.1.9 Name: Read room status history

Actors: Administrator

Description: Administrator chooses what kind of statistics he wants and sorts it. The system then shows him the requested information.

5.1.10 Name: Create room

Actors: Administrator

Description: Creates a room with the necessary data.

5.1.11 Name: Remove room

Actors: Administrator

Description: Removes the room completely from the database.

5.2 NON- FUNCTIONAL REQUIREMENTS

- The system must ensure that all the transferable data as for examples customers credit or debit card number, e-payment should be done in secured connection.
- The system must be able to handle multiple transactions a time.
- One user cannot access the other users account
- Only the authenticated user is allowed to log in
- The system must provide customers 24 / 7 hours online booking service.
- The system should support almost all the browsers (Internet Explorer, Safari, Chrome, and Firefox).