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A Project Report
on
“Sleep Inn”

[Code No: COMP 206]

(For partial fulfillment of II/I Year/Semester in Computer Science)

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Submission Date: 2023/05/15

Bona fide Certificate

This project work on

“Sleep Inn”

is the bona fide work of

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Date: 2023-05-15

Abstract

A hotel reservation system is a software application that allows guests to book directly with hotel online, with no intermediaries necessary. Nepal is a growing tourist destination with a good rise in the number of hotels and resorts currently, thus our is to emphasize on this sector. Our project ‘Sleep Inn’ is an online hotel reservation system which provides a digital platform to check out several hotels based on the room sizes, prices and accommodation and several facilities. This project is based on basic knowledge of web development with HTML, CSS and JavaScript. Our expected outcome is to help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis by providing people all over the world with an easy and fast way to book hotel rooms online.

Keywords: web development, hotels, digital, booking, tourism, accommodation, reservation system

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Acronyms/Abbreviations

HTML Hypertext Markup Language

CSS Cascading Style Sheet

Chapter 1 Introduction

1.1 Background

Presently we are coming closer to a point where paper money may be totally replaced with online transactions. With the use of online systems, physical presence of people is also not required which is a boon to us as it avoids unnecessary crowding, pollution etc.

Hotel Reservation System has all the dynamic versatile features required to run hotels, motels and guest house business. It offers an operational integration between reservations, guest history, reception/ front desk, Sales Ledger, Accounting and Reporting modules. The software has the facility to generate a report for analyzes your booking, checking and checkout status. Hotel Reservation System is the best suit for managing you resource in very simple but effective manner with minimal efforts or time so that it increases your revenue.

Some major drawbacks seen in these fields are less interaction between guests and hotel management, some apps may be less secure, random ads and recommendations etc. Many tours and activities are performed in remote areas where you aren't able to get on the Internet, online booking might not be the best option for users. You'll need reliable Internet access to check your reservations and to add bookings that are made online. In spite of the various drawbacks there has been various advancement in this sectors. Recent development in this field has included features such as intelligent calendar diary, PayPal, various currencies and languages.

1.2 Motivation and Significance

Time and slight interest in business were the chief motivating factors for us to select this project. The world is getting busier every day. Time is of the essence and such a project provides a platform to reduce the amount of time wasted in monotonous tasks. Also, tourism is one of the mainstay of Nepalese economy. Nepal is a growing tourist destination, there has been a good rise in the number of hotels and resorts in Nepal. Hotel Reservation System is the best suit for managing the resource in very simple but effective manner with minimal efforts or time so that it increases your revenue.

1.3 Objectives

- To provide customers with a convenient and efficient way to book their accommodations.
- To speed up transaction among clients.
- To provide the ability to reserve rooms anytime from anywhere with an internet.
- To inform the availability of rooms in real-time.

Chapter 2 Related Works

- Hotel For Nepal is the leading online hotel reservation agency based in Kathmandu, Nepal. It offers accommodation in Nepal ranging from five star hotels to budget hotels. Their hotel booking services also include reservation of hill station hotels, luxury hotels, wildlife resorts, and guest houses beyond Kathmandu. It aims to provide quality accommodation services that meet your travel plans at reasonable rates.



Figure 1: Hotel For Nepal

- Rigo Hotel Suite is a full-featured Hotel and Restaurant Software provided as a Software as a Service (SAAS) which can be quickly deployed at a very low cost of ownership. One does not need to purchase the software; they can simply run the always up to date software from the secure cloud for a small monthly fee. It creates holiday packages for different category of guests and track its cost and margin and raises invoice from Bill master with just a click. It tracks agency payments and statements, purchase, stock, re-order level, cost of sales and sales income.



Figure 2: Rigo Hotel Suite

- KAYAK is a travel search engine which searches hundreds of travel sites to help you find cheap hotels and book the room that suits you best. It also helps look across the web to find your options on flights and rental cars. It has tools that organizes all your travel information into an itinerary that you can edit and add to build out your entire vacation.



Figure 3: Kayak

Chapter 3 Design and Implementation

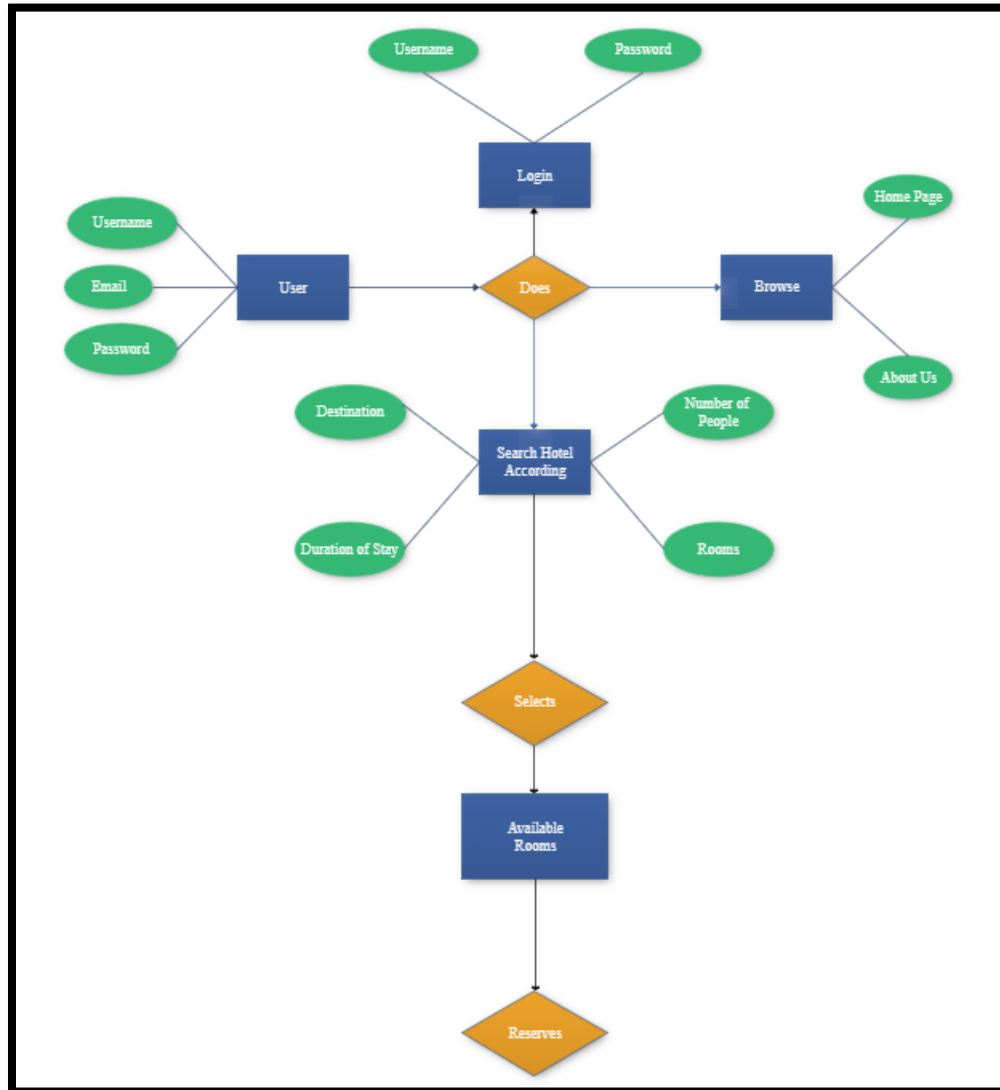


Figure 4: ER diagram

A user can login regularly into the system with username and password but one-time registration with email, username and password is must. The registration details get stored in the database. The user-interface of the pages to be browsed is designed using CSS and JavaScript. The user can search hotels according to their requirements and finally reserve the available rooms.

3.1 System Requirement Specifications

3.1.1 Software Specifications

Functional Requirements:

- User Management Requirement
 - i. Add user with username.
 - ii. Add email and password.

- Login Requirement
 - i. Enter username.
 - ii. Enter password.
 - iii. Or, login with google account.

- Booking Requirement
 - i. Search for hotels with your information of destination, number of adults and children, and duration of stay.
 - ii. Navigate the hotels displayed based on search.
 - iii. Select a hotel and view its availability.
 - iv. Select the desired room and reserve.

- Subscription Requirement
 - i. Enter name and email.
 - ii. Select the subscribe button.
 - iii. Check for latest deals through the provided email address.

Non-functional Requirements:

- Visual Studio Code is a source code editor redefined and optimized for building and debugging modern web and cloud applications. It comes with built-in support for JavaScript, Typescript and Node.js and has a rich ecosystem of extensions for other languages and runtimes
- MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas.
- Insomnia is a collaborative open source API development platform that makes it easy to build high-quality APIs — without the bloat and clutter of other tools.

3.1.2 Hardware Specifications

A laptop with Intel Core i5 64bit processor and Microsoft Windows 10 operating system was used.

- 8 GB ram

Chapter 4 Discussion on the achievements

The system developed can help automate the booking process and reduce the manual workload leading to more efficient operations. It is customer-friendly and can be accessed at anyplace with internet facility.

4.1 Features

The basic features of this project are mentioned below:

- Before stepping into the main system, a user has to pass through a login system to get access. He/she should provide username and then password to continue. Else, they can login with their google account.
- After logging in, the user gets directed to the home page where they can browse hotels based on location or property type.
- Or the user can simply input details of preferred location and the duration of reservation in the search bar.
- Upon display of result for search, the user can navigate through the lists and select any of the hotel to check availability.
- After selection of desired rooms, the user can finally reserve them.
- The user can also subscribe to the system to get updated with deals.
- The basic information of the website can be accessed through ‘about us’ page.

4.2 Limitations

Despite our best efforts to make the software flexible and easy to operate, some limitations could not be ruled out. Prices cannot be compared with other sites. Locality of the hotel cannot be identified. The system does not have online banking for customers.

Chapter 5 Conclusion and Recommendation

Hotel reservation system is based on a concept of exploring hotels and reserving rooms online. Our mini project thus contained limited features, but essential ones. Despite some major challenges that we faced over time such as social media implementation and connection of search engine with MongoDB, we were able to develop this system where customer can explore the hotels as per their requirements and later book any specific hotel room with registration. Thus, overall this system will give the customers a better user friendly environment to book online.

5.1 Future Enhancement

The below mentioned points are the enhancements which can be done to increase the usability of this project:

- Integration of admin panel would be more effective as it allows managing and monitoring system activities.
- Feature of comparison of price among hotels can be added. Comparing prices and amenities side by side helps user to find the best deal.
- Online payment after booking can be considered as it provides a secure and convenient way to pay for your arrangements via PayPal, Google Pay, etc.
- Extension of website to application can be done which can lead to increased customer engagement as mobile applications often provide a more personalized experience.

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APPENDIX

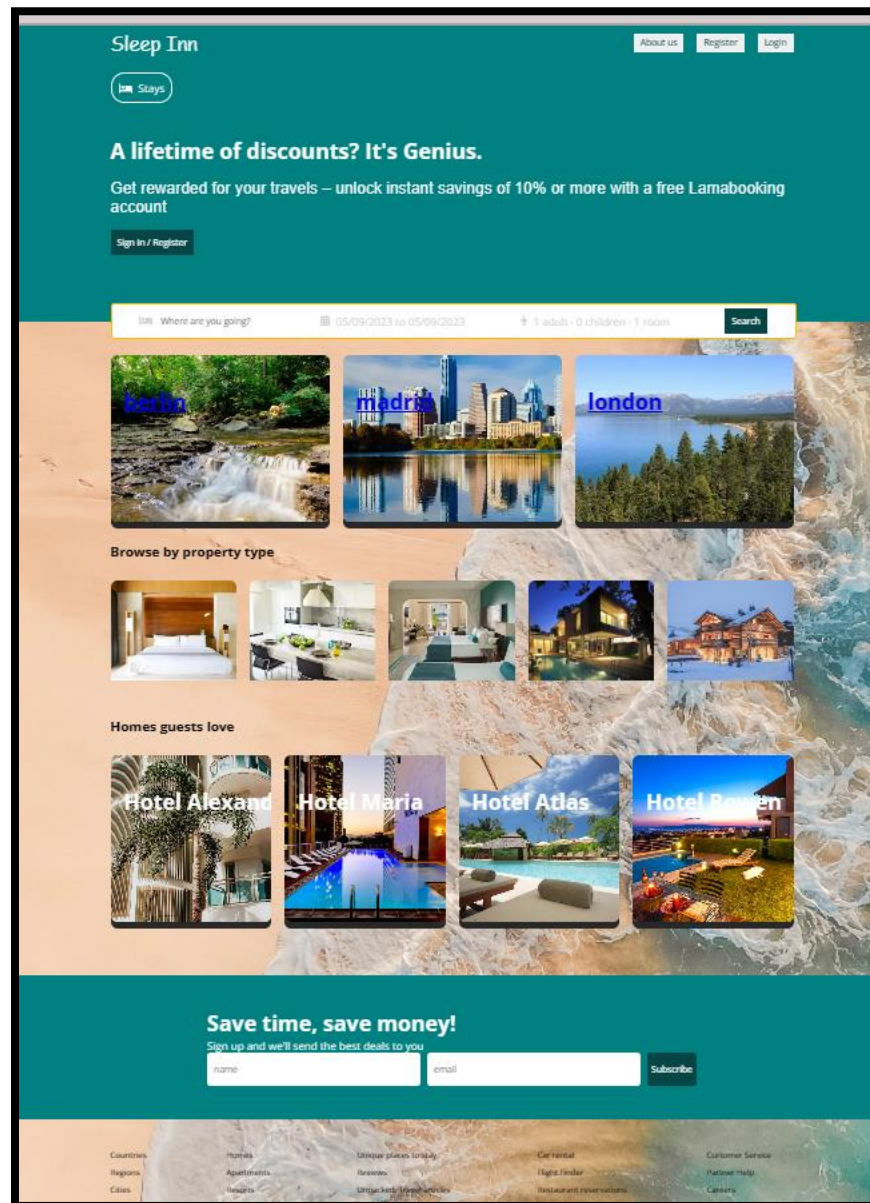


Figure 5: Home Page

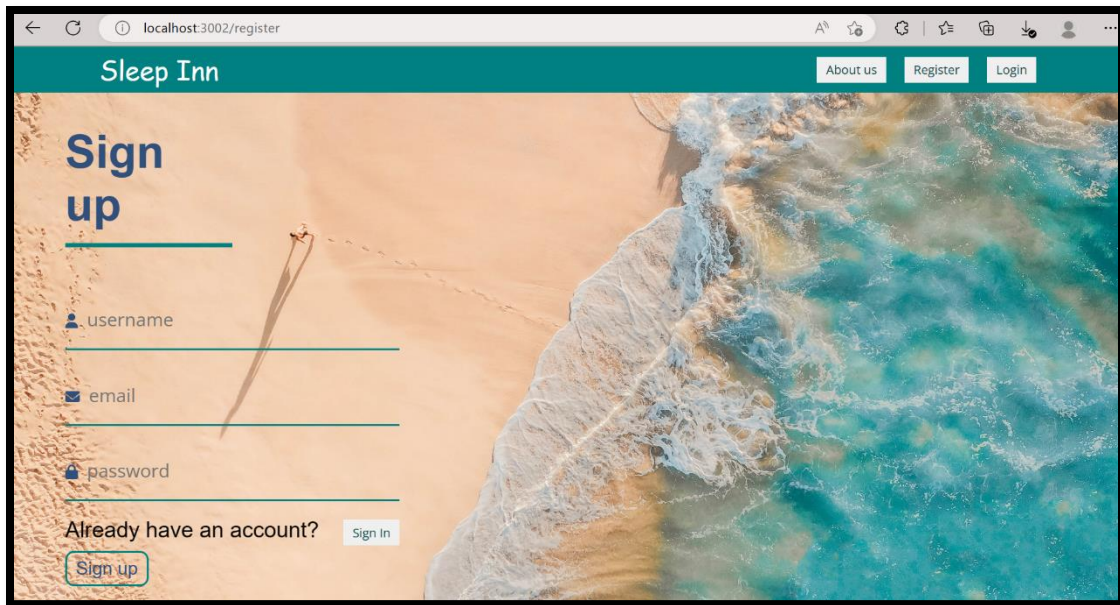


Figure 6: Sign Up Page

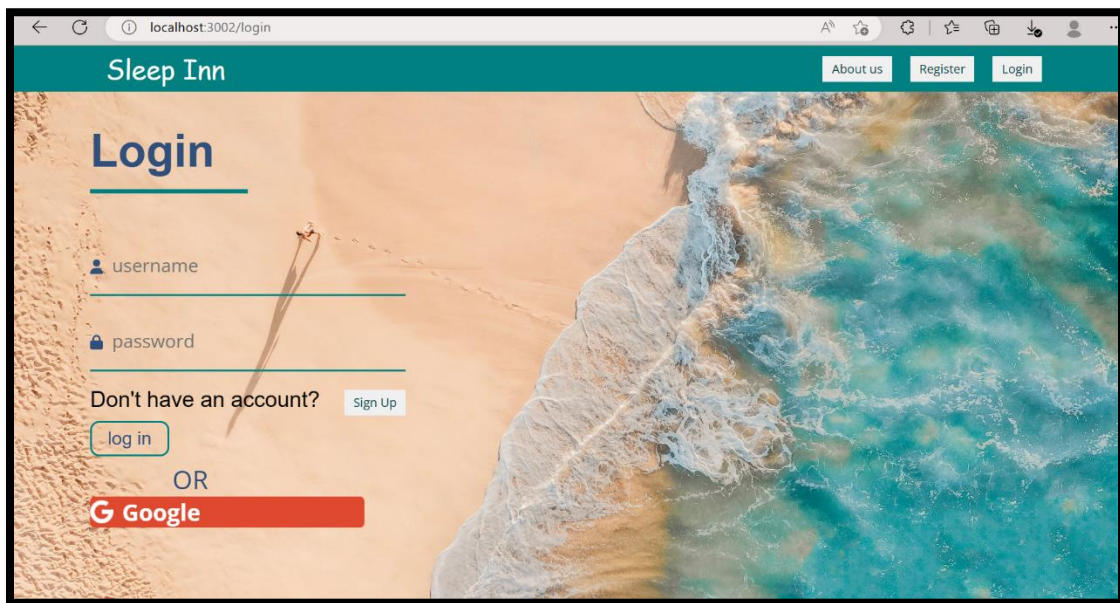


Figure 7: Login Page

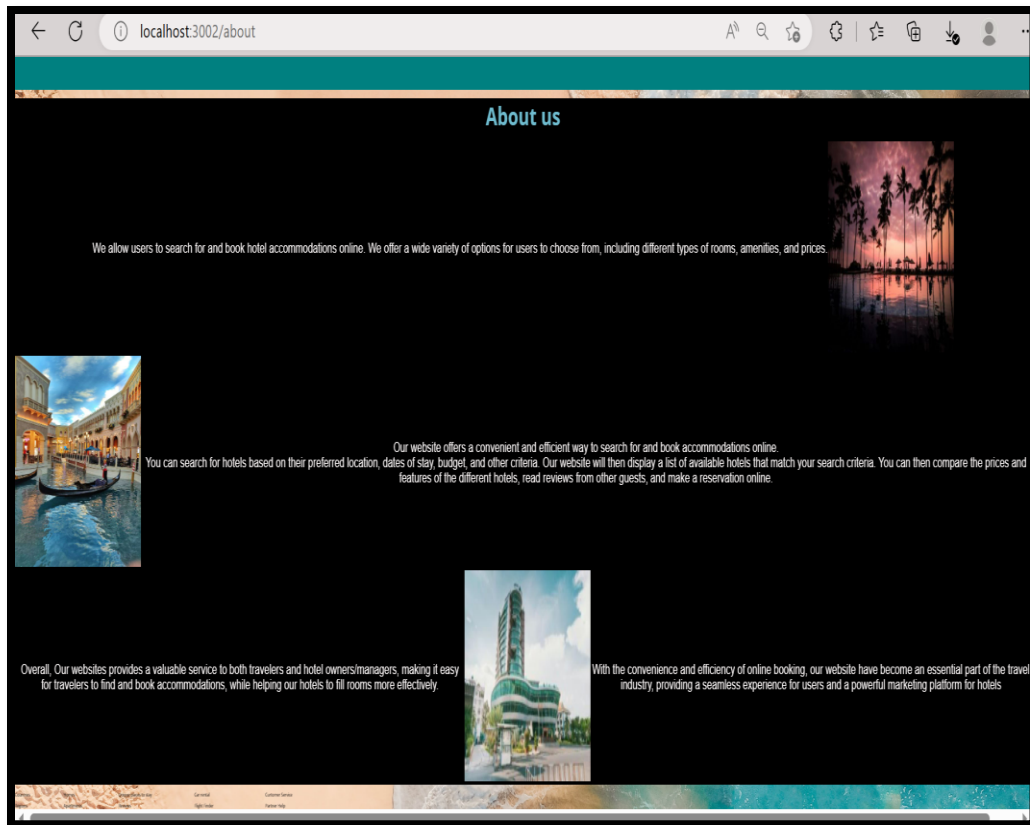


Figure 8: About Us Page

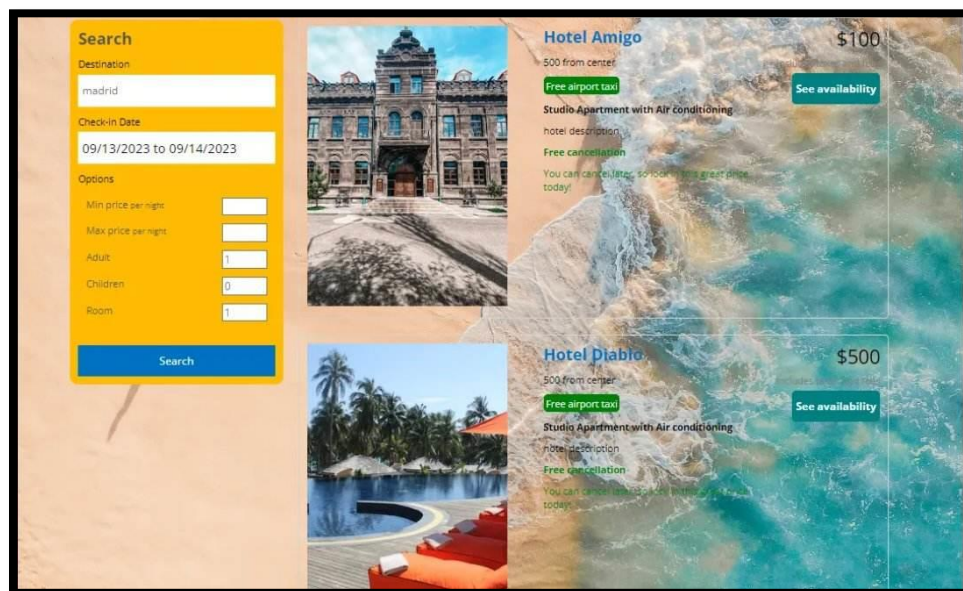


Figure 9: Search List of Hotels

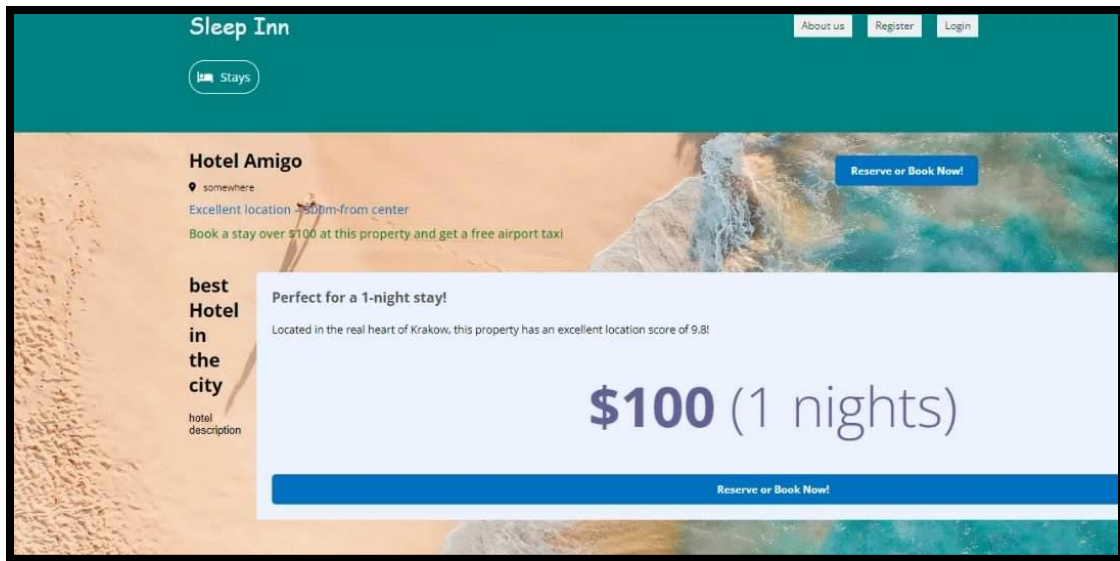


Figure 10

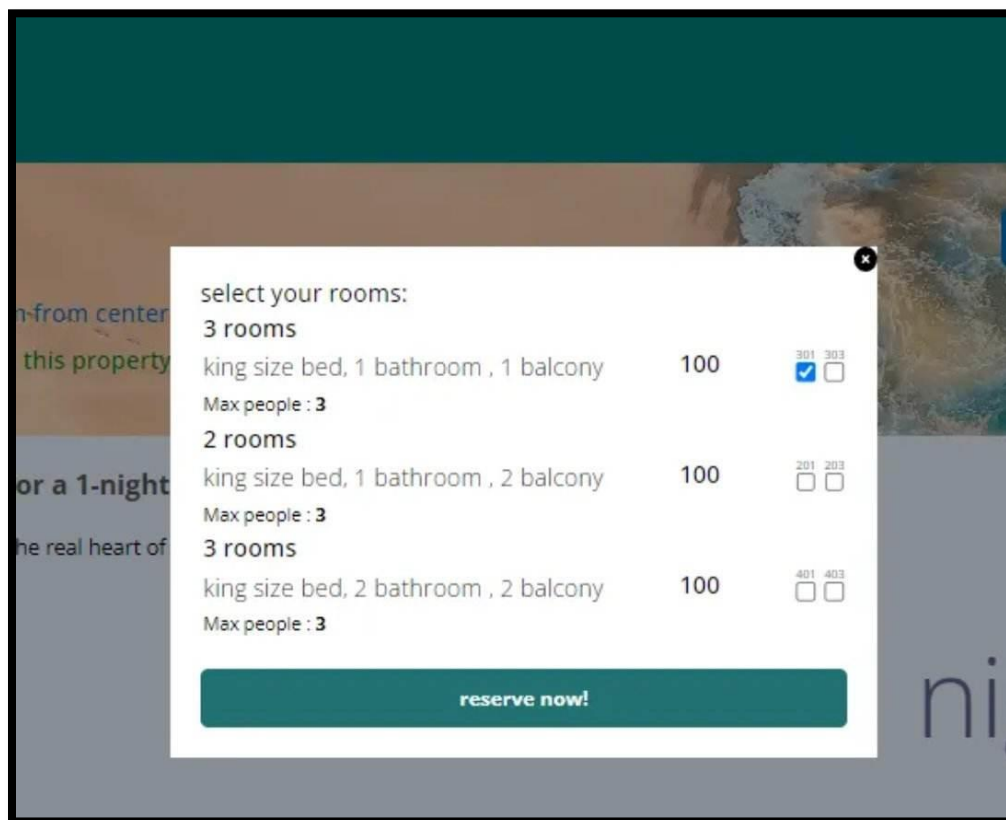


Figure 11: Room Selection