HOTEL MANAGEMENT

1. Introduction-

Hotel management is an area of the hospitality industry that involves overseeing the operations of a hotel location. When working as a hotel manager, you may manage the operations of a motel, resort or another similar establishment that provides lodging and other services for guests.

It is considered to be one of the main elements of proper management in the hospitality industry. Due to the increase in tourism, the demand in hotels is constantly increasing. Millions of people every year travel from country to country and they require a place for temporary living.

It is one of the highly job oriented fields; it covers a wide range of services including food service, accommodation and catering. The major job fields in the hospitality sector include Hotels, resorts, fast food chains, restaurants, etc.

2. Objective-

The general and specific objective of the project are-

2.1 General Objective-

The study is to develop a reliable , convenient and accurate hotel management system.
Provide a user friendly environment.

2.2 Specific Objective-

- To develop a system that surely satisfies customer needs
- To design a system that a user can easily access
- To provide information about all the booked rooms
- To develop a system that is secure

3. Main modules

- Booked Rooms Percentage
- Status of Booked Rooms
- Login as Admin
- Room Booking Form
- Summary Dashboard
- Customer Details

4. Functionalities Provided-

- ➢ Provides quick and easy register procedure
- ➢ Order placement system also manages the Payment details online for the order placed.
- ➢ It tracks all the information of Customer address and Payment details.
- ➢ Shows the information and description of the booked rooms.
- ➢ Manages the user data.
- ➢ A user friendly integration
- ➢ Easy to access payment procedure.

5. Input data and validation of project-

All the fields are validated such as in registration form all the validations are provided, also any input field cannot be empty.
In login form also , validations have been added.

In the payment form, different validation has been provided that are-

1. Validation for empty values
2. Types of customer

    a. New (booked less than 5 times)
    b. Regular (booked more then 5 times)
    c. VIP (Paid Membership)

3. Discount and Additional Price Validation :

    a. If less than 50% of rooms are booked then a discount of :
        i. 10% for New Customers.
        ii. 20% for Regular Customers.
        iii. 25% for VIP Customers.

    b. If more then 80% of rooms are booked then price of the rooms are increased by :
        i. 40% for New Customers.
        ii. 10% for Regular Customers.
        iii. No Increase.

    c. Room Booked during December - February, the prices of the rooms are increased by 40%

4. Payment type :

    a. Credit Card - 10% discount and an additional discount is also given depending on the bank.

    b. If debit card is used :
        i. 1% Discount is provided for New Customers.
        ii. 4% Discount if provided for VIP Customers.

6. User Interface Design-

User Interface Design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventual presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various guidelines for User Interface Design:

a. The system user should always be aware of what to do next.
b. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
c. Messages, instructions or information should be displayed long enough to allow the system user to read them.
d. Default values for fields and answers to be entered by the user should be specified.
e. A user should not be allowed to proceed without correcting an error.

7. Website Structure-

65.0% Rooms are Booked

Room Number	Status
room_1	booked
room_10	empty
room_12	booked
room_13	empty
room_14	empty

Customer Details

Customer ID	No. of Times, Room Booked	More Detail
somya_nagargmail.com	1	View
vicky_kumarneosalpha.com	2	View

8. Technologies Used-

8.1 Language used-

8.1.1 HTML

HTML is the language for describing the structure of Web pages. HTML gives authors the means to: Publish online documents with headings, text, tables, lists, photos, etc. Retrieve online information via hypertext links, at the click of a button.

8.1.2 CSS

CSS stands for cascading style sheets. In short, CSS is a design language that makes a website look more appealing than just plain or uninspiring pieces of text. Whereas HTML largely determines textual content, CSS determines visual structure, layout, and aesthetics.

8.1.2 Python

Python is a dynamic, interpreted (bytecode-compiled) language. There are no type declarations of variables, parameters, functions, or methods in source code. This makes the code short and flexible, and you lose the compile-time type checking of the source code.

8.2 Database

8.2.1 Firebase

Google Firebase is a Google-backed application development software that enables developers to develop iOS, Android and Web apps. Firebase provides tools for tracking analytics, reporting and fixing app crashes, creating marketing and product experiments.

The Firebase Realtime Database lets you build rich, collaborative applications by allowing secure access to the database directly from client-side code. Data is

persisted locally, and even while offline, realtime events continue to fire, giving the end user a responsive experience.

It is a cloud-hosted NoSQL database that lets you store and sync data between your users in real time.

8.3 Framework

8.3.1 Flask

Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.

8.3.2 Bootstrap

Bootstrap is the most popular CSS framework for responsive and mobile-first websites, an open source toolkit for developing with HTML, CSS, and JS. Bootstrap uses Sass variables and mixins for theming, responsive grid system for layout, pre-built components for design patterns, and JS plugins for user interaction.