**Group7 – Section ZAA**

**Topic – Hotel Reservation System**

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**Introduction**

A hotel reservation system is the technology that allows customers to make safe online reservations. While the process is like booking through an online travel agent (OTA), the distinction is that the hotel's booking engine effectively ties up to their own website, thus there are no additional expenses spent for the property.

The reservation software suite essentially automates the booking process, synchronising with company's hotel's website and social media so that visitors can reserve instantly and conveniently without having to visit another site. The reservation system may also communicate with the channel manager, allowing hotels to disseminate availability in real time to both online agents.

I and my team chose this topic as we want to create a database taking the user-friendly experience of customers in mind that will ask for the basic information of the customer and their budgets and other requirements and will show the compared list of all the websites providing with their necessities.

**Problem Statement**

One of a hotel's most important components for having efficient marketing and upholding a standard is a customer database. If there is no database many problems can occur,

For example:

Long que at front desk - Nobody enjoys standing in line, and this is especially true when that person is waiting for something they need, like a cozy bed-in-a-room.

Lack of Guest information - Due to a lack of information, hotels may be unable to create their good marketing contacts to support direct marketing and benefits from the business.

Bad satisfaction of guest - Bad reviews do occur. Unfortunately, it is what it is. They are the misery of every hotel manager's existence and can happen for a virtually unlimited number of causes but if the hotel has good database it will help in larger number of guest satisfaction.

High Call volume at front desk - A high call volume typically indicates that a hotel is busy with guests, which is fantastic. However, if the front desk receives too many calls, it may become overworked, and customers may have to wait for assistance.

**Solution**

Our software application will work on a database that stores customers and hotel information and find and show the best hotel suited to the budget of the customer if the booking is not full and still available. The hotel staff can check the booking details of the customer online and can also accommodate any in-person bookings accordingly. The customers can also select any special accommodation that the hotel offers like pick and drop requests.

**Requirements**

* User login
* Hotel chose by the user
* Payment details of the customer
* Reviews and rating
* Booking availability
* Check-in and check-out dates
* Number of bookings in a particular month
* Commission earned from each hotel in a month

Diagram

Description automatically generated

**CUSTOMER**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Size, Precision** | **Default** | **PK/FK** | **Required** | **Range** | **Sample Data** | **Notes** |
| CustomerID | NUMBER | 4 |  | PK | Y | 1-9999 | 1234 | Autonumbered identity |
| fname | STRING | 25 |  |  | Y |  | “Pachino” |  |
| lname | STRING | 25 |  |  | Y |  | “Paul” |  |
| phone | NUMBER | 11 |  |  | Y | 2000000000-9999999999 | 9467293762 | Assuming North American phone number |
| email | STRING | 25 |  |  | Y |  | abc@gmail.com |  |
| Password | STRING | 16 |  |  | Y | 16-50 | 12367asdhzxcvbnmasefA@! |  |

**BOOKING**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Size, Precision** | **Default** | **PK/FK** | **Required** | **Range** | **Sample Data** | **Notes** |
| HotelID | NUMBER | 4 |  | PK, FK1 | Y | 1-9999 | 1234 | Autonumbered identity |
| CustomerID | NUMBER | 4 |  | PK, FK2 | Y | 1-9999 | 4321 | Autonumbered identity |
| Guests | NUMBER |  |  |  | Y | 1-4 | 3 | Number of guests in each booking |
| CheckOut | DATE |  |  |  | Y |  | 2022/10/19 | Date of Birth (YYYY/MM/DD) |
| ChickIn | DATE |  |  |  | Y |  | 2022/10/10 | Date of Birth (YYYY/MM/DD) |
| ReviewDec | STRING | 25 |  |  | N | 20-80 | “Very great rooms and great food” | Reviews about the hotel and its services. |
| RatingStar | NUMBER | 1 |  |  | N | 1-5 | 5 | Ratings by the customer |
| Commission | NUMBER | 9, 2 |  |  | Y |  | $10,000.00 | Commission earned by each booking. |

**HOTEL**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Size, Precision** | **Default** | **PK/FK** | **Required** | **Range** | **Sample Data** | **Notes** |
| HotelID | NUMBER | 4 |  | PK | Y | 1-9999 | 1234 | Autonumbered identity |
| Country | STRING | 25 |  | FK | Y |  | “Canada” | Country of the hotel |
| Name | STRING |  |  |  | Y |  | “Holiday Inn” | Name of the hotel |
| Star | NUMBER | 1 |  |  | Y | 1-5 | 5 | Rating |

**PAYMENT**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Size, Precision** | **Default** | **PK/FK** | **Required** | **Range** | **Sample Data** | **Notes** |
| CardNumber | NUMBER | 4 |  | PK | Y | 1-9999 | 1234 | Credit/Debit card number |
| CustomerID | NUMBER | 4 |  | FK | Y | 1-9999 | 2345 | Autonumbered identity |
| lssueDate | DATE |  |  |  | Y |  | 2022/12/23 | Date of Birth (YYYY/MM/DD) |
| ExpiryDate | DATE |  |  |  | Y |  | 2027/11/23 | Date of Birth (YYYY/MM/DD) |
| PaymentDate | DATE |  |  |  | Y |  | 2027/12/23 | Date of Birth (YYYY/MM/DD) |
| AmountPaid | NUMBER | 9, 2 |  |  | Y |  | $800.23 | Monetary value |

**COUNTRY**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Data Type** | **Size, Precision** | **Default** | **PK/FK** | **Required** | **Range** | **Sample Data** | **Notes** |
| Country | STRING |  |  | PK | Y |  | “Canada” | Country of the hotel |
| Province | STRING |  |  |  | Y |  | “Quebec” | Province of the hotel |
| City | STRING |  |  |  | Y |  | “Montreal” | City of the hotel |
| PostalCode | STRING |  |  |  | Y |  | M1C 3C6 | Postal code of the hotel |
| Street | STRING |  |  |  | Y |  | “Rouge” | Street of the hotel |
| Landmark | STRING |  |  |  | Y |  | “Near grand Cathedral” | Landmarks near hotel |