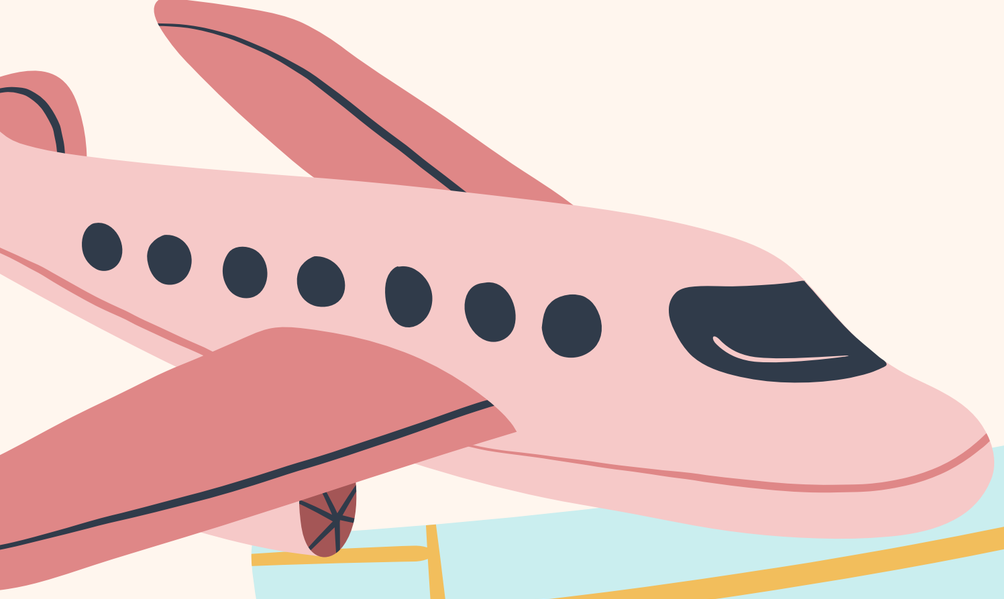
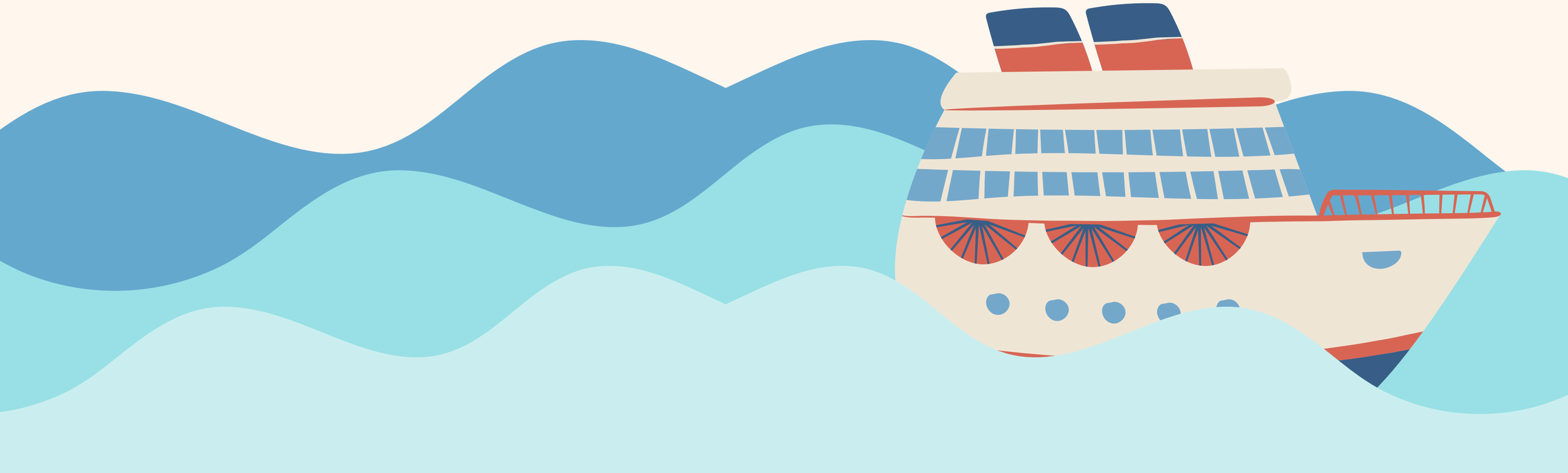


UW HOTEL SYSTEM

Presented by: Postgres Wizards
Nithisha Sathishkumar, Andy Hoang, Sahong Song

TOPIC OUTLINE

BUSINESS PROBLEM

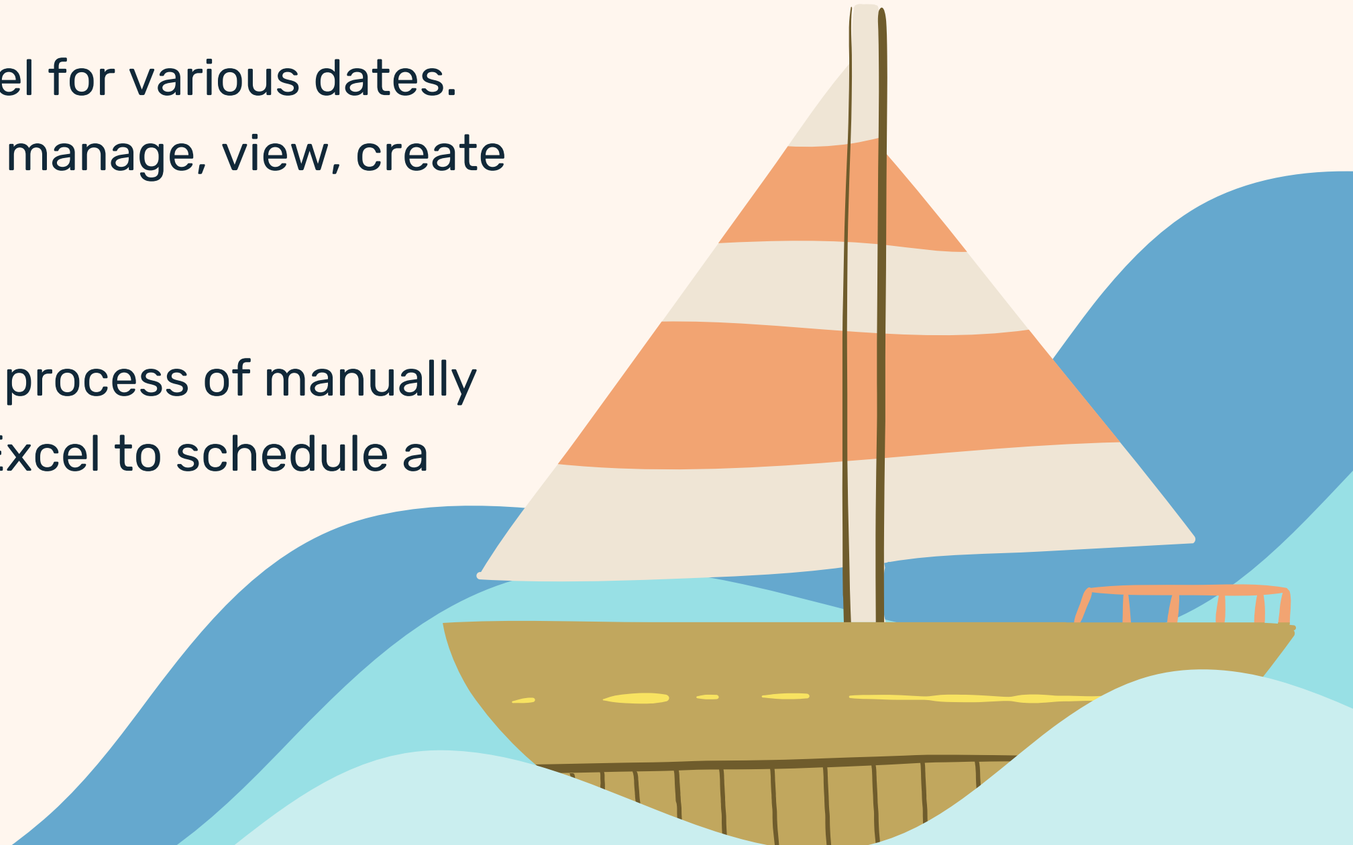


BUSINESS PROBLEM

- The hotel faces operational challenges in managing reservations, guest details, and store payments with the current process because of the increasing number of reservations and staff.

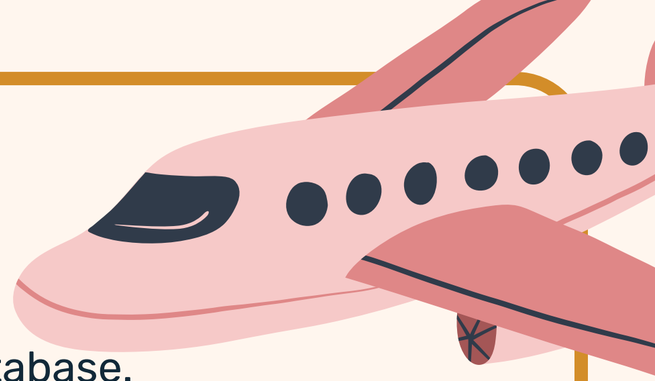
- Many reservations are requested at our hotel for various dates. The staff needs an easily accessible way to manage, view, create reservations, staff, guest details.

- A solution is needed to replace the tedious process of manually picking up all calls and writing entries into Excel to schedule a reservation.



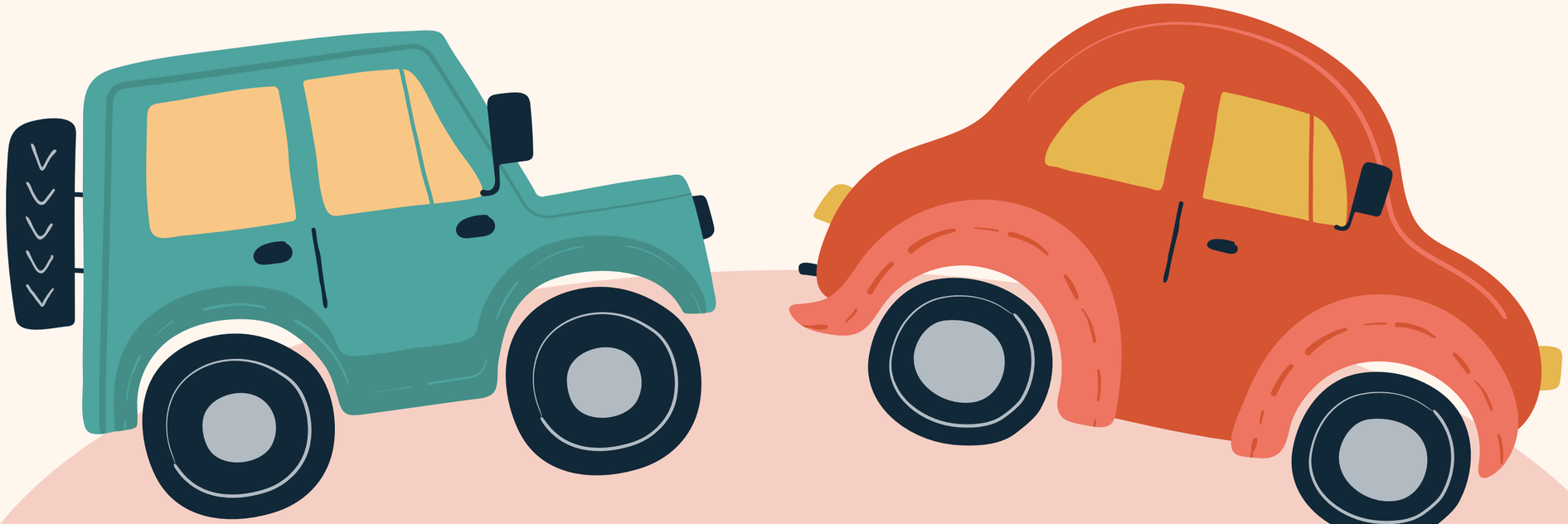
SOLUTION

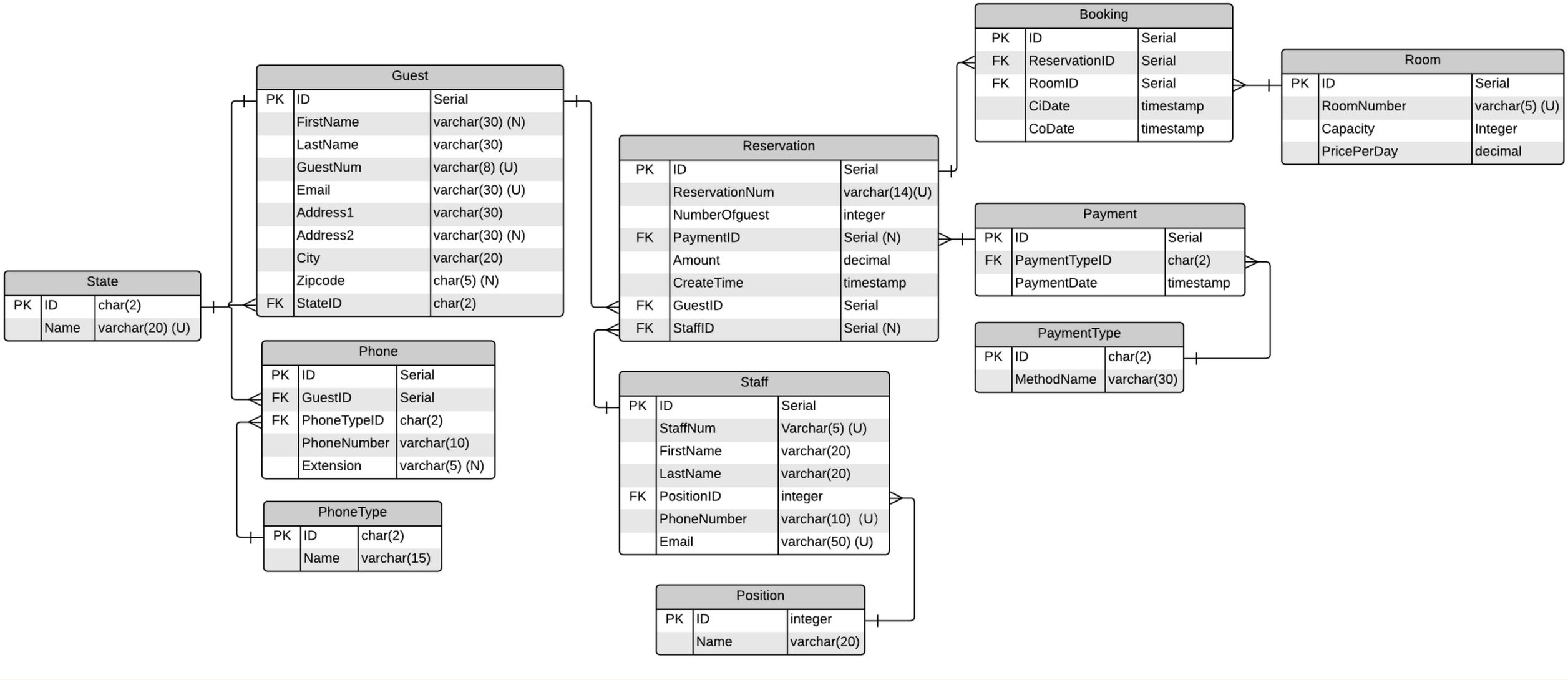
SOLUTION



- The Hotel Reservation System API is crafted to optimize user interactions with the database.
- Staff capabilities include creating reservations, bookings, guest entries, and staff records.
- Staff members have the ability to update guest information, including email and phone numbers. Similarly, staff details such as contact information can be updated. Reservation details and booking room availability are also editable.
- The API facilitates targeted retrieval of specific information and lists for guests, staff, reservations, and bookings based on specific requirements.
- Staff can efficiently search for guest data using guestNum, staff data using staffNum, and reservations using reservationNum. In case a guest forgets their guestNum, the information can still be accessed using their email. Staff can retrieve guestNum by using guest first and last name along with email.
- Staff are empowered to look for available rooms on a specified date, obtain all check-in and check-out times for a specified room, and identify the staff member's information who created a particular reservation if it reservated in person.

SCHEMA




Booking
PK ID Serial
FK ReservationID Serial
FK RoomID Serial
CiDate timestamp
CoDate timestamp
Room
PK ID Serial
RoomNumber varchar(5) (U)
Capacity Integer
PricePerDay decimal
Guest
PK ID Serial
FirstName varchar(30) (N)
LastName varchar(30)
GuestNum varchar(8) (U)
Email varchar(30) (U)
Address1 varchar(30)
Address2 varchar(30) (N)
City varchar(20)
Zipcode char(5) (N)
FK StateID char(2)
Reservation
PK ID Serial
ReservationNum varchar(14)(U)
NumberOfguest integer
FK PaymentID Serial (N)
Amount decimal
CreateTime timestamp
FK GuestID Serial
FK StaffID Serial (N)
Payment
PK ID Serial
FK PaymentTypeID char(2)
PaymentDate timestamp
State
PK ID char(2)
Name varchar(20) (U)
Phone
PK ID Serial
FK GuestID Serial
FK PhoneTypeID char(2)
PhoneNumber varchar(10)
Extension varchar(5) (N)
PaymentType
PK ID char(2)
MethodName varchar(30)
Staff
PK ID Serial
StaffNum Varchar(5) (U)
FirstName varchar(20)
LastName varchar(20)
FK PositionID integer
PhoneNumber varchar(10) (U)
Email varchar(50) (U)
PhoneType
PK ID char(2)
Name varchar(15)
Position
PK ID integer
Name varchar(20)

DEMO