DOCUMENTATION HOTEL BOOKING SYSTEM

Made and prepared by:

Member1 id: 201900786
Name: مروان احمد علي مخلوف

Member2 id:201900947
Name:وحيد عبدالحسيب أحمد

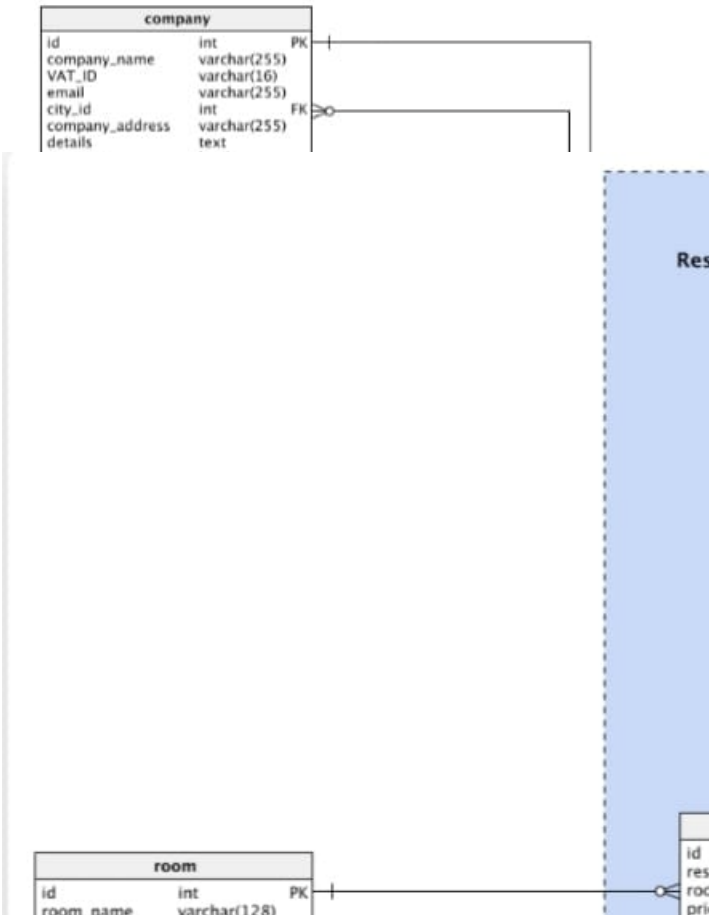
Member3 id:201900755
Name:محمود أحمد عبدالباسط

Member4 id:201900668
Name:محمد سيد أبوزيد

Member5 id:201900775
Name:محمود عبدالحميد عبدالحواد

Member6 id:201900783
Name:محمود وحيد سيد أحمد

Member7 id:201900788
Name:مروان أيمن عبدالستار



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1.0 INTRODUCTION

This application is an tourist agent which provides the facilities for booking hotels, ins, houses, holiday apartments and other accommodations' for customers. They operate their business in Malaysia, Singapore and other South East Asia. Any customers need to book hotel, ins or apartment they need to visit their office which is situated in Bukit Jalil for checking the availability as well as negotiation. Recently they have decided to change their booking pattern from manual to web based system. It will help them to manage the customers booking easily and also to keep the customers data more safe. It will also help staffs to keep in track their customer's online booking request as well as easily to reply feedback to the customers. For that they hired a developer to build the web system for this reputed company. In this documentation it shows how the web based system will be implemented and looks like (User Interface).

2.0 GANTT CHART

Task Mode	Task Name	Duration	Start	Finish	Predecessc
	ANALYZING CURRENT PROBLEM	7 days	Sun 10/12/14	Sun 10/19/14	
	PROJECT PROPOSAL	3 days	Mon 10/20/14	Wed 10/22/14	
	PROJECT PLANNING	4 days	Thu 10/23/14	Tue 10/28/14	
	REQUIREMENT ANALYSIS	7 days	Wed 10/29/14	Thu 11/6/14	
	LOGICAL DESIGN	8 days	Fri 11/7/14	Tue 11/18/14	
	PHYSICAL DESIGN	14 days	Wed 11/19/14	Mon 12/8/14	
	TESTING	3 days	Thu 10/9/14	Mon 10/13/14	
	IMPLEMENTATION	16 days	Fri 11/14/14	Fri 12/5/14	

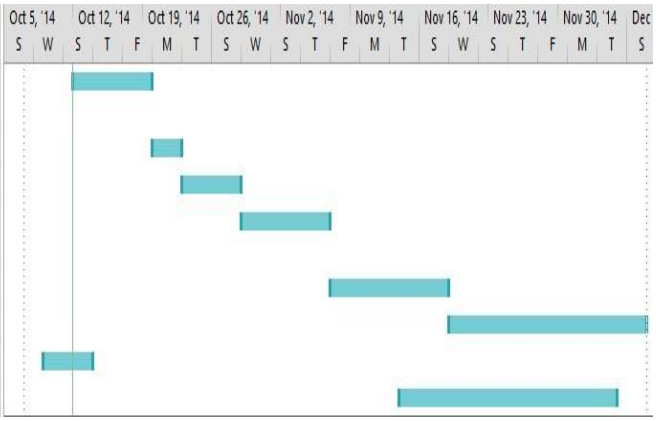


FIGURE 1: GANTT CHART

3.0 PROBLEMS OF Old SYSTEM

The old system has manual booking system, they are facing some problems issuing booking requests of customers. All the necessary booking stuffs are being done in hard copy. So it become much difficult for staffs to keep the records updated all the time. As for example, if thecustomers need to change the check in date it become difficult for them to find out the customersbooking details for updating as there are so many customers booking records. Again, regarding current system customers cannot give feedback online and also staff cannot reply to them promptly. Besides tourists from other South East Asian counties need to call directly for bookingpurposes. So they cannot get the chance to view their apartment rooms or hotels rooms before they make book.

4.0 REQUIREMENT ANALYSIS

Functional Requirements

- The system supports customers booking and able to modify them
- Customers can search based on hotel, apartment, inns
- When a customer search for hotels, apartment, and the search result must contain hotel or apartment information (Address, Ratings, and Price) and also its availability within choosing check in and check out date.
- Customers able to cancel their booking from their account.
- Staffs able to edit customers booking information (updating check in, check out, room preferences, bed preferences and also cancelling booking).
- Customers can book online and pay with credit or debit card.
- The system must send booking confirmation email after successful payment.
- Customers can write reviews about hotels and apartment and also rate them.
- Customers able to check their booking status from their individual account.
- Customers can send feedback or call the company for booking purposes.
- Customers can check for latest promotion or deal.

- This application is used in hotels by hotel's receptionist.
- We can add , update and delete employee.
- Adding , updating and deleting customers.

- About room :
- Enter user/guest name if not available
- Filter rooms via different options (if room is busy or not,room type , room service)
- Assign room to guest
- View near checkout client(client with checkout within two days)
- Utilize other service module to assign client to other service

- Other service:
- Add ,update and delete service(service name , description,price,etc..)

5.0 UML DESIGN

UML design is the shortest form of "**Unified Modelling Language**". The purpose of this modelling language is to visualize the design of the system. There are total 14 types of UML diagram. They are:

- Class Diagram.
- Component Diagram.
- Deployment Diagram.
- Object Diagram.
- Package Diagram.
- Profile Diagram.
- Composite Structure Diagram.
- Use Case Diagram.
- Activity Diagram.
- State Machine Diagram.
- Sequence Diagram.
- Communication Diagram.
- Interaction Overview Diagram.
- & Timing Diagram.

Here we will show only 2 diagrams out of 14. For that we have chosen "***Use Case Diagram***" & "***Class Diagram***".

Class Diagram

This is the most used UML diagram in the field of software engineering design. It is called as a main building block of any object oriented solution. Usually it illustrates the classes in a system, attributes and operations of each class and also the relationship between each class.

Below is the "***CLASS DIAGRAM***" of our new proposed system.

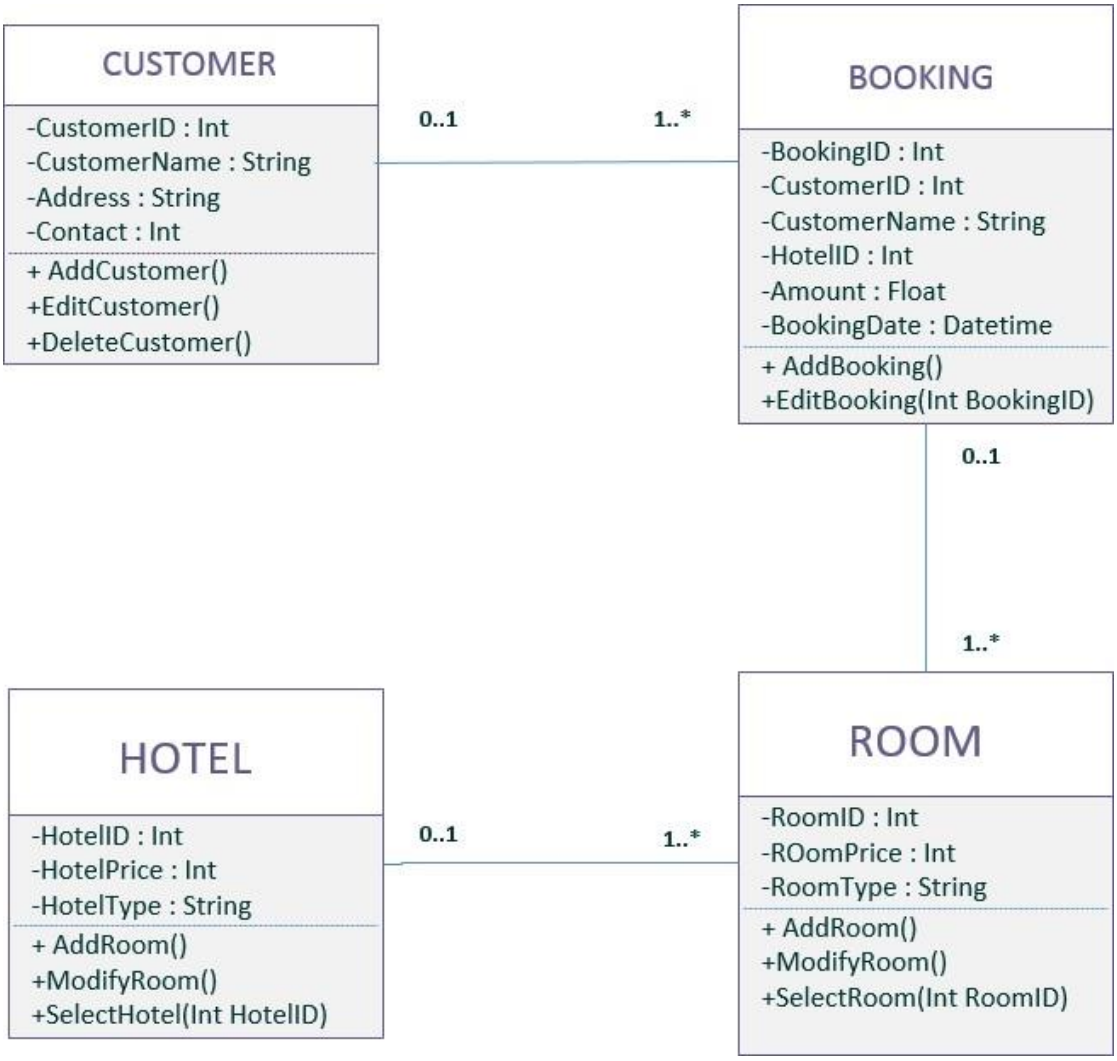


FIGURE 2: CLASS DIAGRAM

Use Case Diagram

It is also called behavioral UML diagram. It gives a graphic over-view of the actors involved in a system directly. It shows how different functions needed by the actors how they are interacted.

Below is the "***USE CASE DIAGRAM***" of our new proposed system.

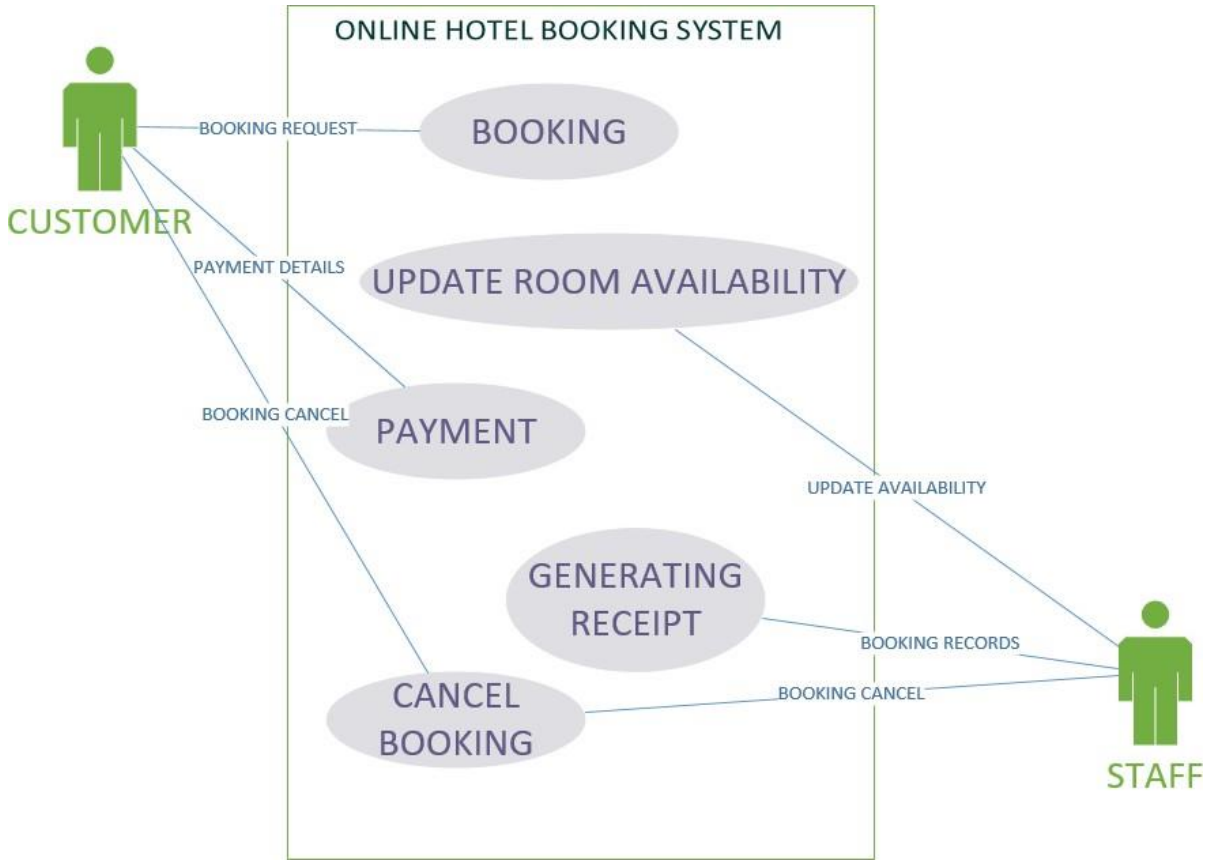


FIGURE 3: USE CASE DIAGRAM

Name :	Booking
Actor :	Customer
Description :	Describe the process used to add a new booking
Successful Completion :	1. Customers can book 2. Staffs enter the customers details into the database
Alternative :	None
Precondition :	Customers registered as a member

Post condition :	Room is booked by customer
Assumption :	None
Name :	Update Room Availability
Actor :	Staff
Description :	Can update the availability of hotel's room
Successful Completion :	1. New availability for hotel's room 2. Staffs enter the available room details into the database
Alternative :	None
Precondition :	Staffs update the system entering new room availability
Post condition :	Customers can see the latest availability of hotel's room
Assumption :	None

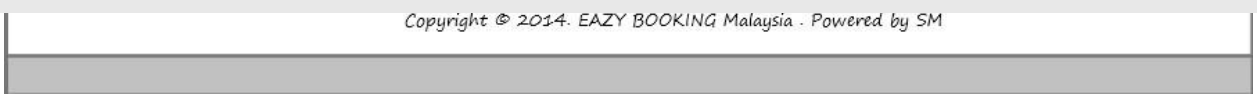
Name :	Payment
Actor :	Customer
Description :	Describe the process of payment through the system
Successful Completion :	1. Customers will receive the invoice 2. Staffs enter the customers payment details into database
Alternative :	Pay after arrive into the destinations
Precondition :	Customers registered as a member
Post condition :	Room is booked by customer
Assumption :	None

Name :	Generating Receipt
Actor :	Staff
Description :	Describe the process used to generate the booking details
Successful Completion :	1. Staff can check the booking details 2. Staffs will keep the copy of the generated receipt
Alternative :	None
Precondition :	
Post condition :	Room is booked by customer
Assumption :	None

Name :	Booking
Actor :	Customer
Description :	Describe the process used to add a new booking
Successful Completion :	1. Customers can book 2. Staffs enter the customers details into the database
Alternative :	None
Precondition :	Customers registered as a member
Post condition :	Room is booked by customer
Assumption :	None

6.0 PHYSICAL DESIGN

Home Page



Above figure 1 shows the home page of "***EAZY BOOKING***" web based system. This interface contains ***Booking Search***, ***Currency Converter***, ***Sign In***, ***Sign Up***, ***Manage Booking***, ***Gallery***, ***View Booking*** and ***Log Out***. Although in this interface ***Log Out*** in showing as a navigation bar but it will appear after ***Log In*** of customers or staffs. Although "***EAZY BOOKING***" is having their own mobile app for ***Android*** and ***IOS***, customers can get this free app by entering their email address or mobile phone number. So, it will be more convenient for customer to book directly using app from their hand phone. This is also contains the news of latest promotions available for customers. The ***Currency Converter*** is for those customers who wish to see the

currency need to be paid in their own country's currency. Below is the company's social link (Facebook, Instagram & Twitter). Customers can give their feedback on our social site also.

Sign Up (Customer)

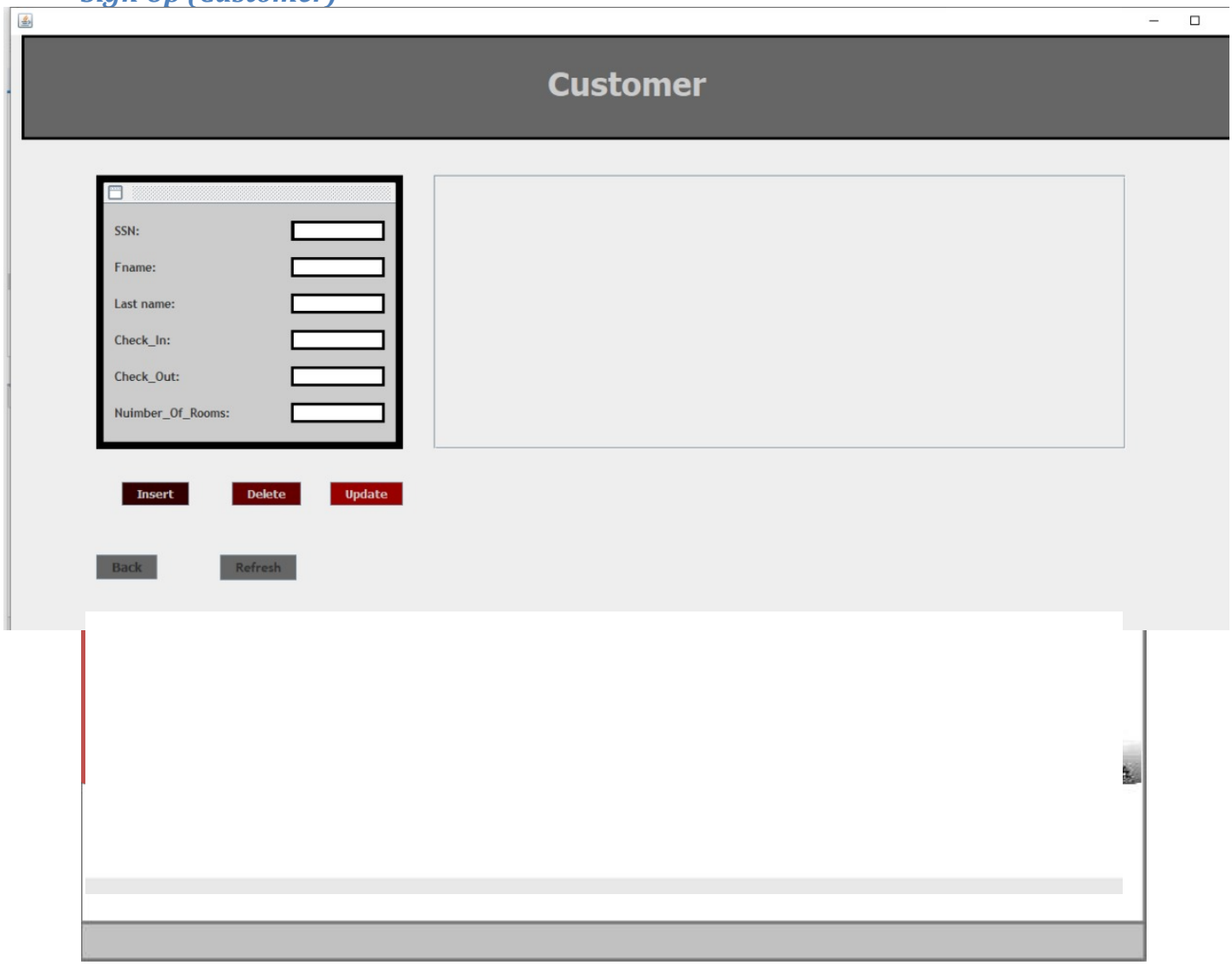
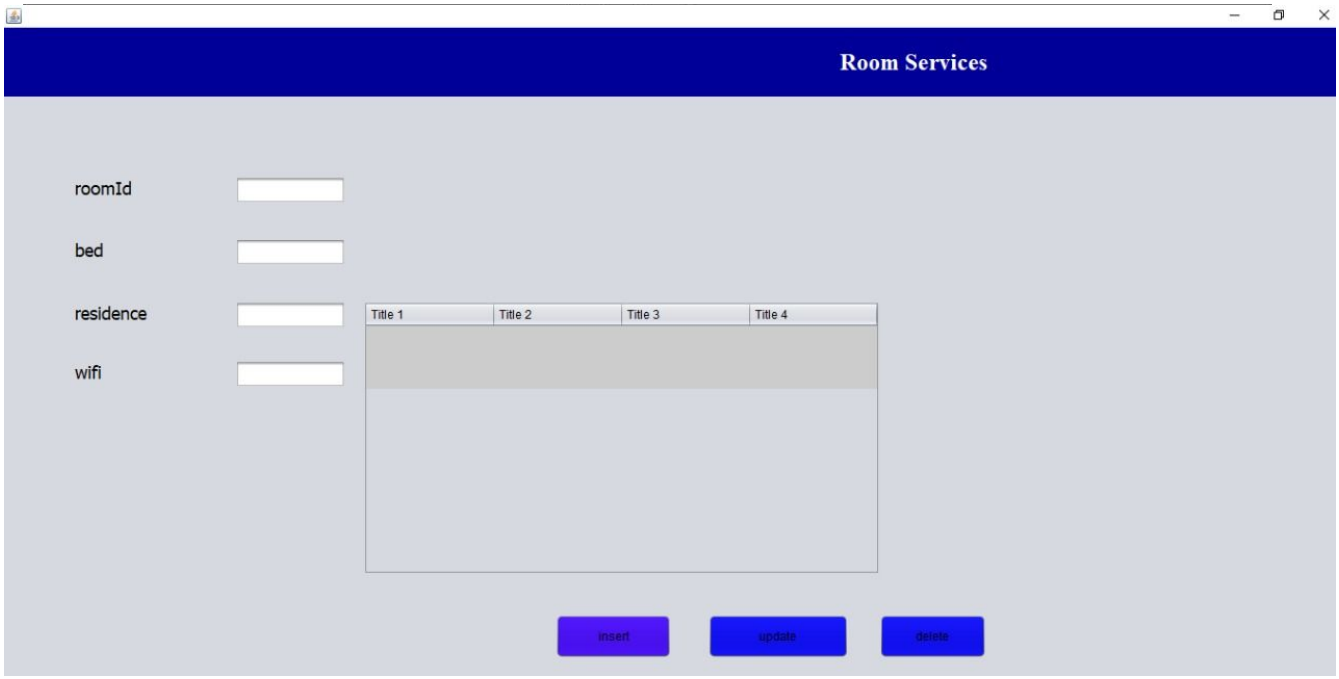


Figure 2 shows the ***Sign Up*** page for customers. From here customers can register to the system by providing their necessary details (***Username, First Name, Last Name etc***.). On the left of the interface users will see the flash motion of upcoming promotions. Customers will see some third party promotions like Zalora, Agoda and Air Asia.

Booking Availability



chosen dates. This interface will appear after customer select their destinations, dates, check in & check out from ***Home Page***. After clicking ***Search*** button, the system will appear this web page to the customers. From here, customers can **filter** the page by selecting the price range, hotel facilities, room facilities etc. For further reference they will be able to see the ratings of the hotels, apartments given by other tourists. The individual price will also appear below teach hotels. After choosing the hotels they can click on the ***Book*** button for booking. Besides, if they want to change the date, check in and check out, they just need to click on ***Change Search*** button. It will appear the below interface.

Booking Confirmation

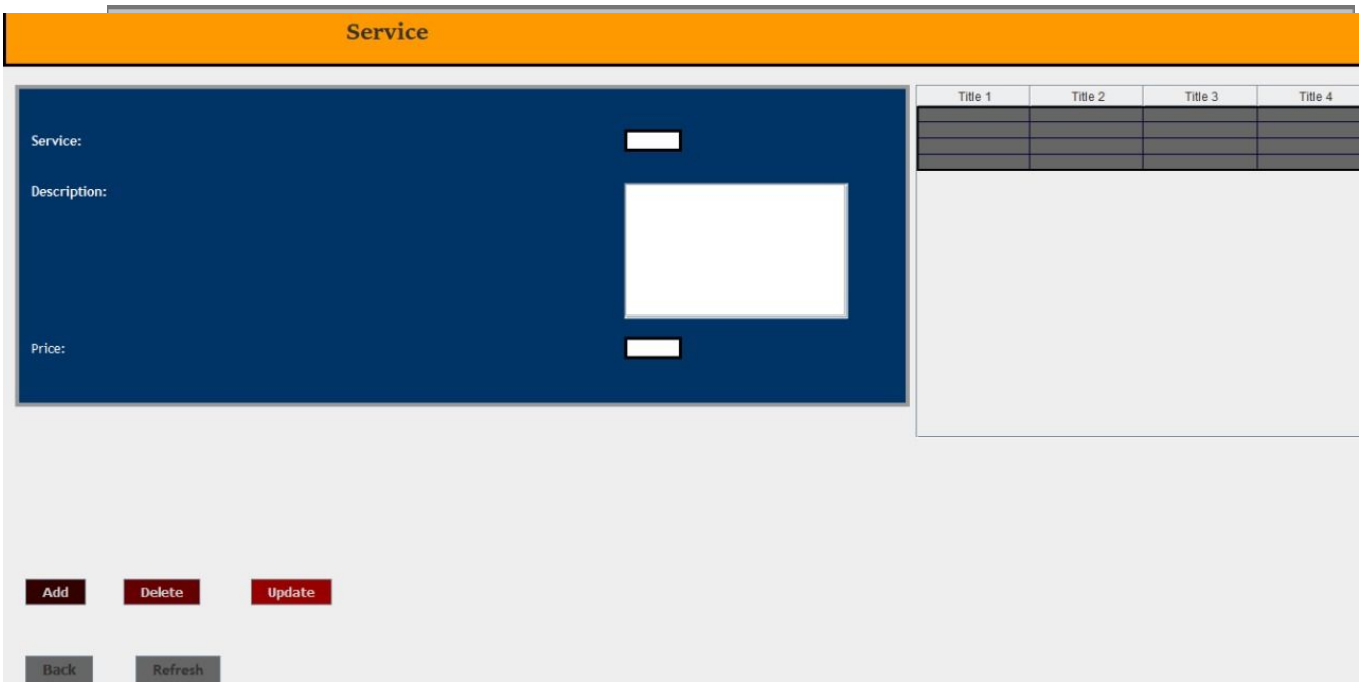


Figure 9 shows the customers ***Booking Confirmation*** generated by the system automatically after successful payment along with the payment details. Customers can also print the booking confirmation page if they want to. Besides, the confirmation mail will be send to customers registered email address.

7.0 TEST PLAN

Test Case 001

- **Test Title: Eazy Booking Icon**
- **Test Procedures:** Click on the icon.
- **Test Data:** Users need to click on the icon bar.
- **Expected Result:** It will redirect to the system home page.

Test Case 002

- **Test Title: Customer & Staff Login.**
- **Test Procedures:** Type username & password.
- **Test Data:** Username & password must be in alphanumeric. Otherwise system will show error (ex. Please enter valid alphanumeric data).
- **Expected Result:** It will redirect to login page.

Test Case 003

- **Test Title: Sign Up**
- **Test Procedures:** Click ***sign up*** page.
- **Test Data:** Input customer's information and click on the button "***SIGN UP***".
- **Expected Result:** It will register new customer.

Test Case 004

- **Test Title: Search.**
- **Test Procedures:** Type destinations name with selecting check-in and check-out.
- **Test Data:** Valid destinations name with date.
- **Expected Result:** System will search according to customer's choice.

Test Case 005

- **Test Title: Manage Booking.**
- **Test Procedures:** Click on the link "***Manage Booking***".
- **Test Data:** ***Add***, ***Edit***, ***Del*** & ***Save*** button.
- **Expected Result:** Staffs can edit, add and Del individual customers booking records.

Test Case 006

- **Test Title: Username & Password**
- **Test Procedures:** Enter customers or staffs valid username (Upper Case and Lower Case) and password (Alphanumeric).
- **Test Data:** Invalid password will show the warning message (Please Enter Valid Password).
- **Expected Result:** The system will follow the validation pattern.

Test Case 007

- **Test Title: View Booking Cancel Button**
- **Test Procedures:** Customers need to sign in and can cancel the booking when they press cancel button.
- **Test Data:** Cancel their particular booking record.
- **Expected Result:** Will cancel their booking records from database.

Test Case 008

- **Test Title: Change Search**
- **Test Procedures:** Customers can change their search according to changing their check in, check out and destinations.
- **Test Data:** Click on the button "**Change Search**" from hotels availability page.
- **Expected Result:** Customers can select their new check in and check out date with destinations.

8.0 IMPLEMENTATION

System implementation is the most important steps in case of finalizing the approved web system. We need to justify some basic requirement (software & hardware) so that the system will work without having obligation and customers dissatisfactions.

Software Requirement:

- **Operating System**: Windows (XP, 7, 8, 8.1) or Mac OSX (Tiger, Leopard, Snow Leopard, Lion, Yosemite).
- **Web Browser:** Google Chrome, Internet Explorer (ver. 8 or later), Mozilla Firefox, Safari (Mac).
- **Database Management System:** MySQL, SQL Server, Microsoft Access, Oracle.
- **Web Development System:** Visual Studio 2010 or later, Adobe Dreamweaver, Notepad, and Notepad++.
- **Others:** .NET FRAMEWORK.

Hardware Requirement

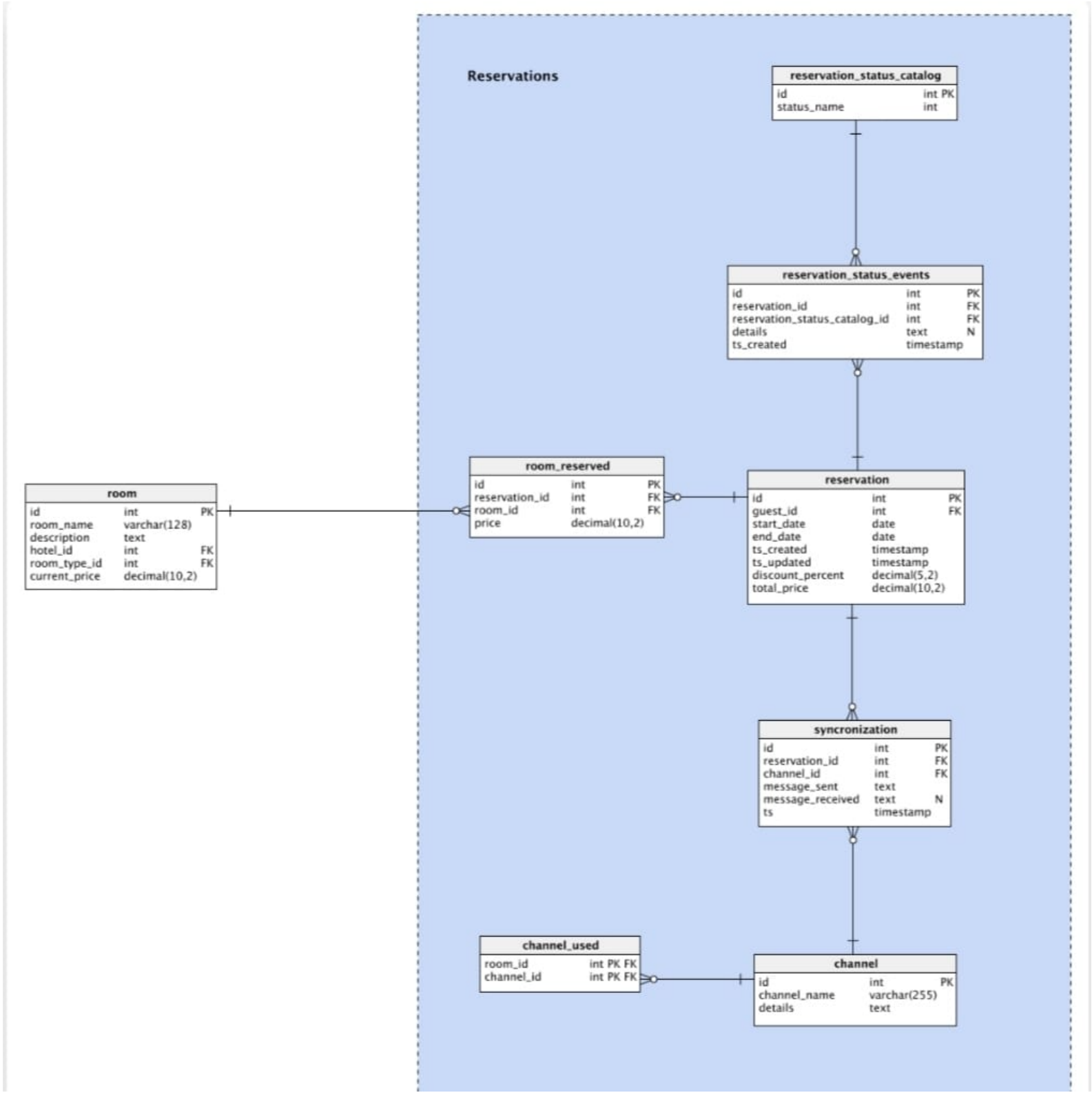
- **RAM:** Minimum 1GB or higher.
- **HDD:** Minimum 50 GB.
- **Processor:** Intel Pentium 4 or AMD.
- **LAN:** Version 1.6.6.406(For fixing up client disconnection).

9.0 LIMITATIONS

Although this system will provide the booking facilities to customers, it is having some limitations. In case of enquiry when customers send their feedback through the system, it will go directly to the staff mailbox. It means the system don't have the separate web page for checking all the customers enquiry and send reply promptly. Besides the system also don't have the online banking (**MayBank2U, CIMBClicks, PayPal**) for customers.

10.0 CONCLUSION

The system is having some benefits for customers too. In home page customers can put their email address or phone number for downloading the booking apps directly on their phone. The application will work for both OS Platform (IOS & Android). By this customers can book by using this application. Besides, customers can also book online without registering into the system. Again, customers no need to worry for payment. But for reservation they need to key in their credit card details for verification purposes. It will not charge them promptly. So, overall this system will give the customers a better user friendly environment to book online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reservation_status_events
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reservation_status_catalog_id int FK
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room_reserved
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room_id int FK
price decimal(10,2)
reservation
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guest_id int FK
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end_date date
ts_created timestamp
ts_updated timestamp
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total_price decimal(10,2)
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room_name varchar(128)
description text
hotel_id int FK
room_type_id int FK
current_price decimal(10,2)
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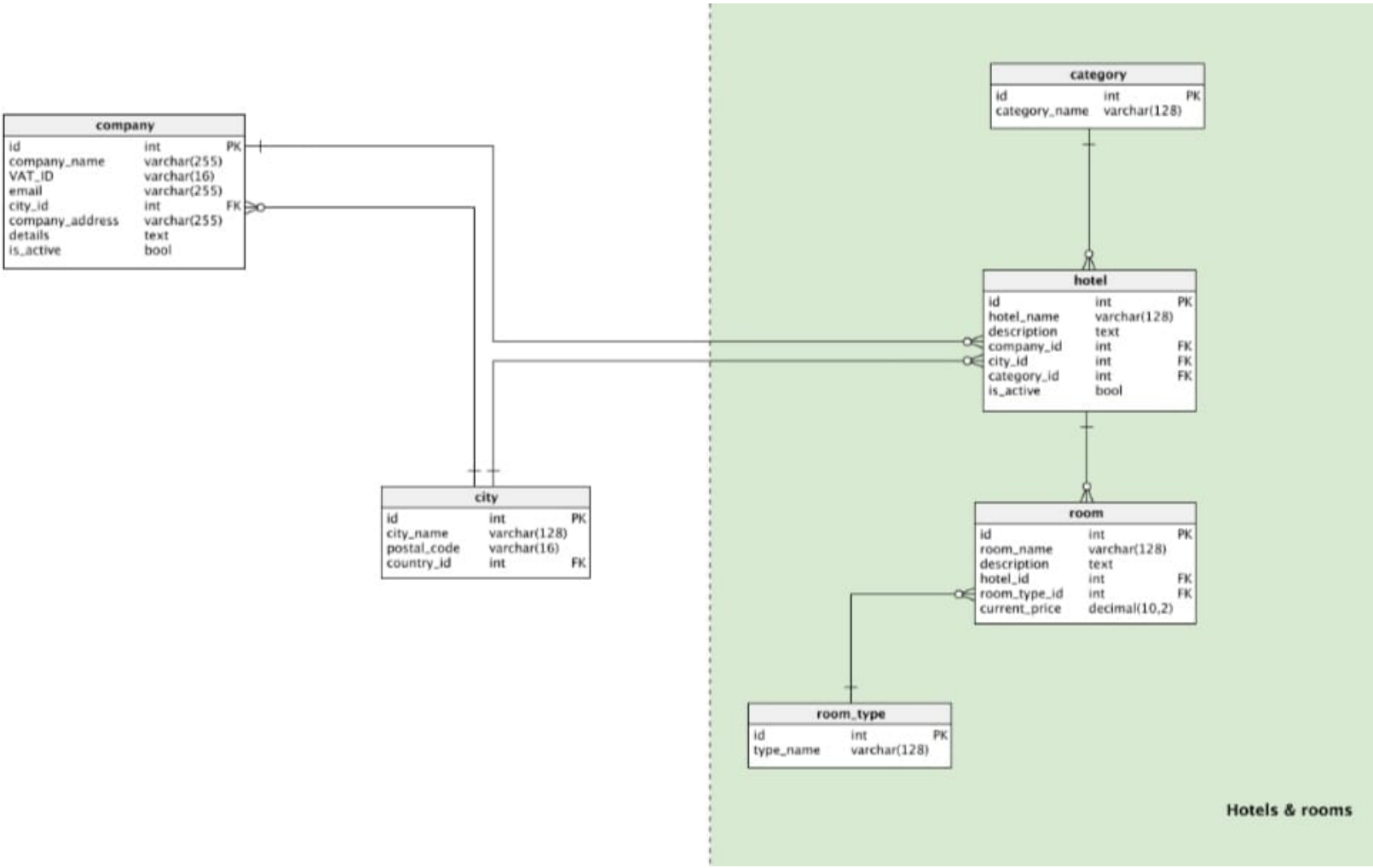
details text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category_id int FK
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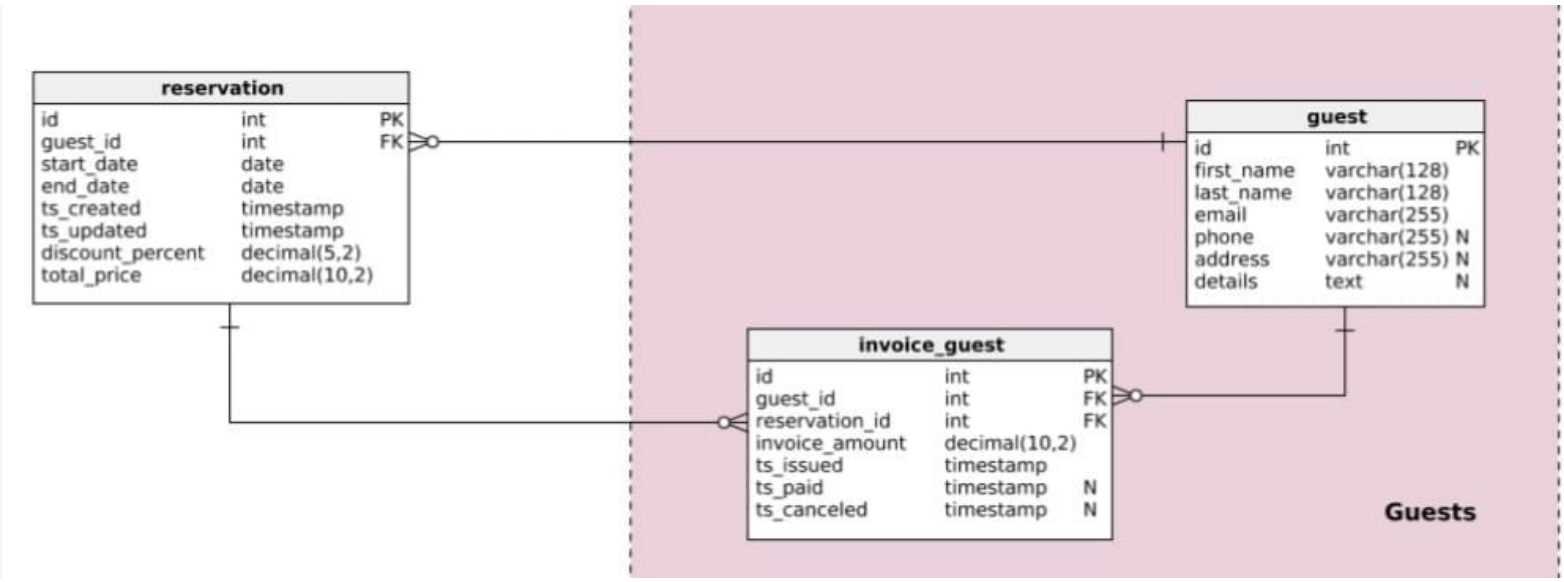
Hotels & rooms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end_date date
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ts_updated timestamp
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last_name varchar(128)
email varchar(255)
phone varchar(255) N
address varchar(255) N
details text N
invoice_guest
id int PK
guest_id int FK
reservation_id int FK
invoice_amount decimal(10,2)
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ts_paid timestamp N
ts_canceled timestamp N
Guests