Course basic information

Code	Course Name	Credit Hours		
		Lecture	Practice	Total
IS212	**Database**	2	2	3

Research Title

(Hotel Reservation System)

Student Name: Ahmed Tarek ABOZiED
Student ID:1618120180100177
Level:2nd year
Department: general

Table of contents

system discerption
(summary the Purpose of this system)

A Hotel Reservation System is a software that where build to contribute in business field, this software will allow shortcuts for the customers. See in the past the online reservation was not available because of internet was not have this wide use that he has now. this days its internet make it possible to do online reservation with a few sample steps you gust need to choose which (hotel you will pick, check the rating, how many bads you need, the location of the room, view, cost, services you need, some hotel has additional option like gem , sauna, jocosely, etc. then after you check all you can see the final price or total cost then if you going to go with this option or you going to start searching this prosses all over again. There is some hotels that dose this prosses for you using some algorism in the process you just need to fill the form and pick what work for you and he will give you the best choice.

In simple few words the hotel reservation system is online reservation prosses that done through hotel website.

Hotel reservation system made it clear to the hotel owners the in order to growing their business you will need to get this kind of serves.

Today a lot of hotels has hotel reservation system this system allow them to gene advantage on your opponent form other hotels because this serves will attract travelers, tourists, the people that travel a lot in order to get their job done the hotel reservation system also improves your efficiency in service and business field. Your will have the ability to updated your date immediately once the reservation done which will allow you to take your arrangement and start to rent the other rooms, that doesn't work in your system only, but in all of your hotel channels. Which will allow saving time on the person on the administrative it also minimizing the risk that full on your property.

In order to manage this hotel reservation system, you just make sure to request the right information to feed to your date base which will make your system work more effective and make the most profits out of it.

List of tables in hotel database

Admin table

Name field	Date type	description
Admin name	varchar	Name of the user
Admin bass	varchar	Password of the user

Hotels table

Name field	Date type	description
ID	int	Hotel ID
City	Varchar	Which city hotel location are
State	Varchar	Which state hotel location are
Phone number	int	Contact number

Rooms table

Name field	Date type	description
Room number	int	The number of the chosen room
Room type	Varchar	The type of the chosen room
Room location	Varchar	The location of the room
Number of beds	int	How many beds in the room

Room type

Name field	Date type	description
Single room	Boolean	Type of room
Double room	Boolean	Type of room
Suite room	Boolean	Type of room
Deluxe room	Boolean	Type of room

Room rate

Name field	Date type	Description
Room ID	Int	Room ID
Room number	Int	Room number
Daily rate	int	Rate in stars in scall of 5

Reservations table

Name field	Date type	description
Reservation number	Int	The number of reservations
Customer ID	Int	The ID of the customer
check in date	Date	The date the get in hotel
Check out date	Date	The date out of the hotel
status	varchar	statue
Number of guests	Int	Guest numbers
Reservation date	Date	The reservation date
Room number	Int	Number of the room

Services

Name field	Date type	Description
Service name	varchar	The service name
Service ID	Int	The service ID
Service cost	Int	Cost of the service
Reservation number	Int	Reservation number
Room number	Int	Room number

customer

Name field	Date type	Description
Customer ID	Int	The customer ID
First name	Varchar	The customer first name
Last name	Varchar	The customer last name
Phone number	Int	The customer phone number
City	Varchar	customer city
State	Varchar	customer state

Payment (cost)

Name field	Date type	Description
Room cost	Int	price of the room
Misc. cost	Int	Price of the Misc.
Credit card number	Int	Credit card number
Payment date	Date	Date of payment
Customer ID	int	Customer ID

Feedback

| Name field	Date type	description
Name	Varchar	Customer name
Email	Varchar	Customer email
Company	varchar	Customer company
Phone number	Int	Customer phone number
Check in date	Date	Check in date
Check out date	Date	Check out date
Room number	Int	last time room number
Comment	varchar	Customer comment

Entity relationship Diagram

The following figure show the ERD diagram of the project
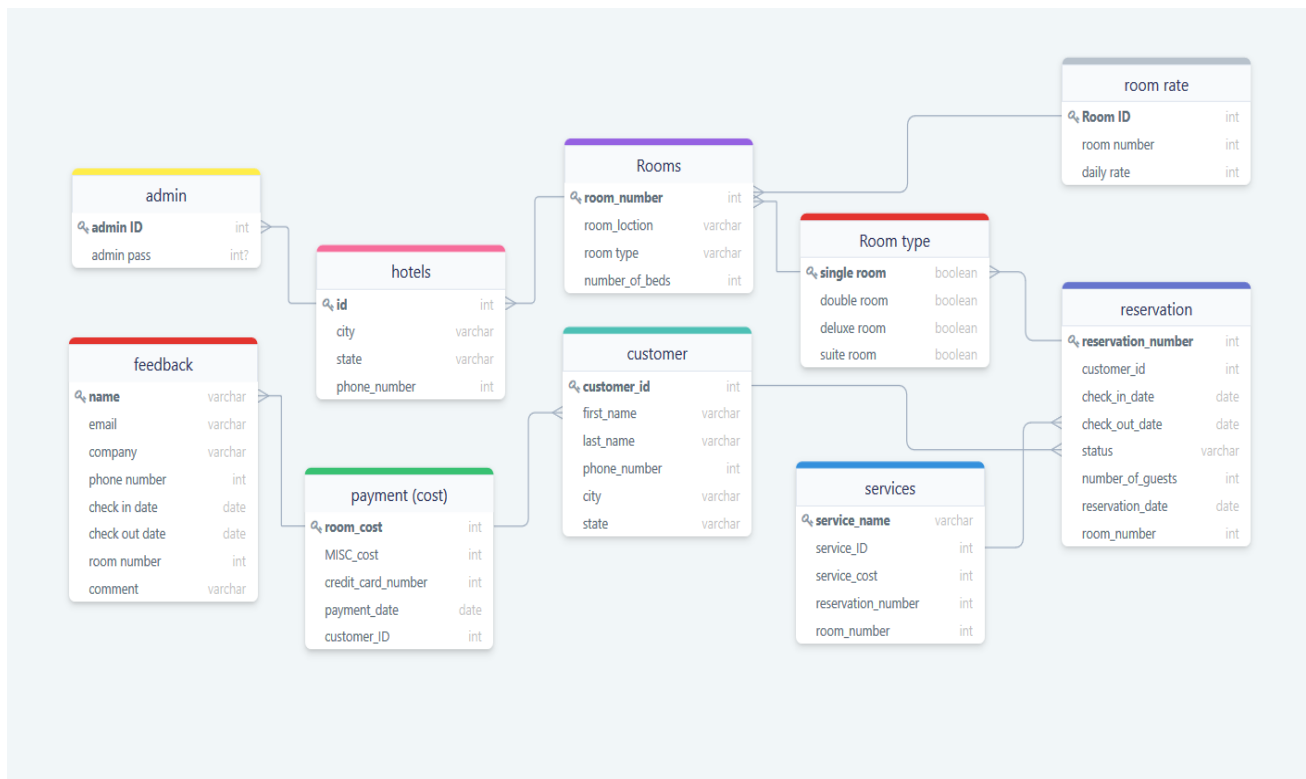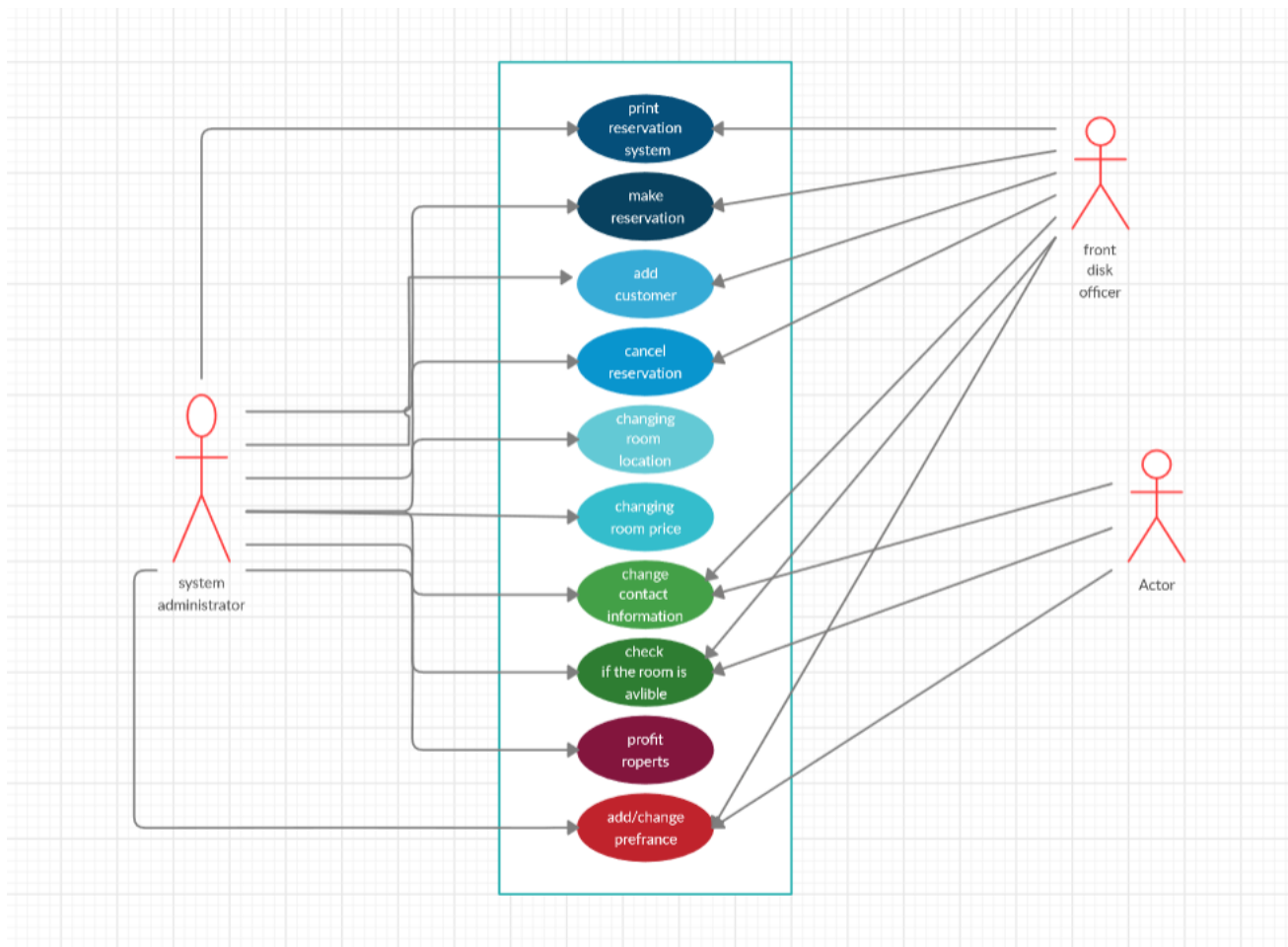

Other related Diagrams

Context diagram

The following diagram represent the context diagram
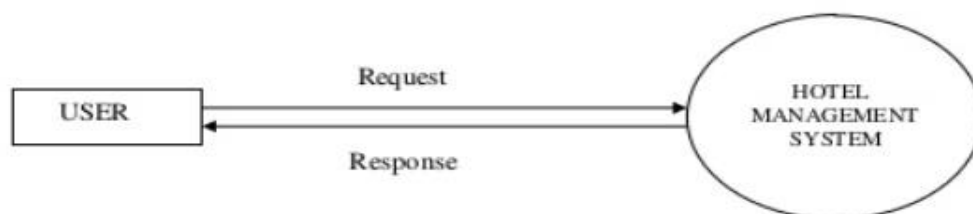
The case models

How the user interacts with the system.

System requirements analysis

hardware requirements

- processor: Pentium 11, III, IV or higher
- ram 64 or higher
- disc space 20GB
- printer

- Operating system: windows xp, vista7, Linux, mac os.

- date base: MY SQL, SQL, Oracle, sy base, access, etc.

- Server: internet information server, apache

Select Statements using Different Functions

1.What is the minimum price for single room?

```
Select min(price)
From single-room-cost
```

2. where is the room location

```
Select room-location
From rooms
```

3.What is the maximum price for suite?

```
Select max(price)
From suite-cost
```

4. display is the hotel information

```
Select *
From hotel
```

5.What is average price for double room?

```
Select Avg(price)
From double-room-cost
```

6.display the comment of customers

```
Select comment
From feedback
```

7. Find the first name of customers whose last name starts with 'v'

```
Select *
From customer
Where first_Name like 'v %'
```

8.List all rooms that has price of 200$ per night

```
select count (*)
from [rooms] where price = 200
```

9. List first name and last name of customers in descending order

```
Select first_Name, last_Name
from customer order by desc
```

10. find all details of room reservation which start date is 2018-09-01 and end date is 2018-09-09

```
Select *
From reservations
Where startdate=' 2019-09-01 ' and  enddate=' 2019-09-09 '
```

11. List the double room which has id 101

```
Select *
From double_room
Where    rid='R101'
```

12. List first name and address of customers who rental a room from 2019-09-5 to 2019-09- 9

```
Select first_Name, address
From customer c, reservation r
Where   c. cid = r. cid and startdate =' 2019-09-05 'and enddate=' 2019-09-09 '
```

13. what is the rate of room

```
Select daily rate
From room rate
```

14. List all details of rooms which retail in 2019-05-22 in descending order

```
Select*
From vehicle
Where startdate =' 2019-05-22' Order by desc
```

15. List all rooms which room number start with '7'

```
Select*
From rooms
Where room_number like '7 %'
```

16. List all room which location is 'A5'

```
Select *
From rooms
Where location ='A5 '
```

17. List the count of all rooms in the hotel

```
Select count (*)
 From rooms
```

18. List room which are related in number of beds

```
Select *
From beds b, room r
Where b. vid = r. vid
```

19. List all room reservation in descending order

```
Select *
From reservation Order by desc
```

20. List single rooms from all rooms

```
Select single_room
From room type
```

21. List the count of room types

```
Select count (*)
from room_type
```

22. Find the first name of customers named 'ahmed '

```
Select first_Name
From customer
Where first_name=' ahmed '
```

23. List rooms which are occupied

```
Select *
From occupied
```

Select Statements using Sub Query

1. List of the customer information form the customer id that ranted room on 2018-09-9.

```
Select* from customers where customer ID in (select customer id from [rooms] where
orderdate >' 2018-09-9'
```

2.Update the suite price to the maximum price in the list his id= 7.

```
update suite_price set price= (select max(price) from suite_prices) where
product ID=7
```

3. Who is the user his account had to reset the password

```
Select * from users where email = (select email from password-reset where
forgotten< forgotten>)
```

Select Statements using Count and Group Functions

1. display how many times a room was rented
```
Select room id, sum(payment-date) from [payment] Group By room id
```

2. Display last time a room was rented
```
Select room id, max(orderdate) from [payment] group by room id
```

3. List the count of all rentals room

```
Select count (*) From occupied
```

Insert Statement

Insert into rooms (room type, customer id) values ("single room", 555617)

Insert into customer (first-name, last-name-phone-number) values (Maher, aimed, 010554894849)

Insert into admin (admin-id, admin password) values (4377, 548756)

Insert into service (service-id, room number) values (554, 77)

Insert into payment (customer-id, room-cost) values (98745, 200)

Update Statement

Update reservation set number of guests = '10' where room-ID = 787878

Update rooms set room rate = '5' where room-id = 998877

Update rooms set room number = '7' where room id =1

Update single-room set room price = '200' Where room-number = 2

Update user-password set pass = '15789' where user-pass like '16999'

Delete Statement

```
Delete from payment credit-card-number were customer id=77994
```

```
Delete from rooms-number where room-id = 1
```

```
Delete from customers where customer-id = 5548
```

```
Delete from feedback where customer name=" Maher"
```

```
Delete from admin where admin-id=77845
```

References

Much of the contents of the topic where derived from

- **Data base book by Dr.Reda M. Hussin**
- **C.j. date, "an introduction to datebase system" 2003 pearson**
- **https://www.littlehotelier.com/r/small-hotel-technology/booking-systems/hotel-reservation-systems-work/**