2014

PROJECT TITLE:

Hotel Reservation Database System

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1. INTRODUCTION

1.1 Hotel's Profile

Tropical Palace Hotel is a small hotel which is located in Mandalay, Myanmar. Mandalay is the second largest city of Myanmar and also a historical city including the grand palace and many historical sites. In the peak seasons, many tourists come to visit this place and this Tropical Palace Hotel becomes a very crowded place. It is a 2-story building which includes 10 rooms in each story. It has various types of rooms including Single, Double, Family and Deluxe rooms. The room numbers have 3 digits, the first digit represents as floor number and it ranges from 101-110, 201-210. Each story has 2 family rooms and 2 deluxe rooms and the others are 3 single rooms and 3 double rooms. Because of its good services and hospitality of staffs, the hotel's reputation is growing high and more guests are coming.

1.2 Current System

Since the hotel was opened, the staffs have been doing all the works manually, that is, the staffs have to record all the daily transactions manually on the paper-based system. The staffs have to write down every detail in the books daily. This is really a time-consuming task and the data inconsistency is also very high. Now, with the hotel's growing reputation in the city, the increasing numbers of guests day by day make the hotel's staffs more and more difficult to handle the daily transactions on manual paper-based system. The following are the problems that the current system is facing with.

1.3 Problems Background

Slow Retrieval of Data – The information is stored in different parts of locations and it may take a long time to retrieve the data. Sometimes, it can take up to 20 to 30 minutes finding the relevant information. It is really a time-consuming task.

Inconsistency in Updating Data – Because data stored in the books are written manually and they are not connected together as a system, the staff may update in one file but may miss to update in another file. So, the inconsistency in updating data can easily be occurred.

Paper Wastage – Much paper is wasted due to the number of records daily and the number of increasing guests. Duplication of data can be occurred by repeating the same thing over and over.

Unproductive Use of Storage Space – Paper takes up a massive amount of space in the site.

Poor Customer Service – Sometimes, the information requested may be unavailable.

No Reliable Database System – The records on paper can be lost or damaged at any time. Since there is no backup for the data, the lost or damaged documents cannot be regained at all.

No Reliable Security System – Writing on paper is totally lack of security system. Any unauthorized person may view, update or even the data can be stolen.

These are the weak points that the current system is facing with.

1.4 Objectives

The main purpose of the new system is to handle all the problems that the old system is currently facing with. With the newly implemented system, the records can be easily created. There will be no duplication of data records because all the data records are controlled by a primary key called ID. There is also an error checking method to detect the data type error (e.g. the record cannot be stored when user types the alphabet character for the maximum persons, a numeric value must be typed in). For retrieval of the records, it is much faster and easier than the previous system. Editing and deleting also can be easily and quickly performed. The records are to be stored in the security enabled database system which can store many lines of data records. There will be no store room at all to store the documents and no paper wastage at all. So, all the current problems will be solved with this single "**Hotel Reservation Database System**". The staff will only need to sit at the workstation just to perform all these tasks.

These are the advantages of the new "**Hotel Reservation Database System**".

2. DATABASE SYSTEM

2.1 Database Description

When a guest comes to make a reservation in the hotel, the staff will check which rooms are available or vacant in the 'room table' and the staff should also need to check the 'roomtype table' at the same time, whether the number of guests allowed in the specific room types are exceeded or not and the staff also need to check whether the guest wants smoking or non-smoking room. If the room that the guest requested is vacant and the number of guests is not exceeded, then he must register his detailed information first which is stored in the 'guest table'. After registering, the staff can make a reservation for this guest in the 'reservation table' and the amount can be charged according to 'rate' in the 'roomtype table' and number of days the guest stayed.

Therefore, due to the importance of maintaining a complete set of information and records, the following tables are created for the above tasks.

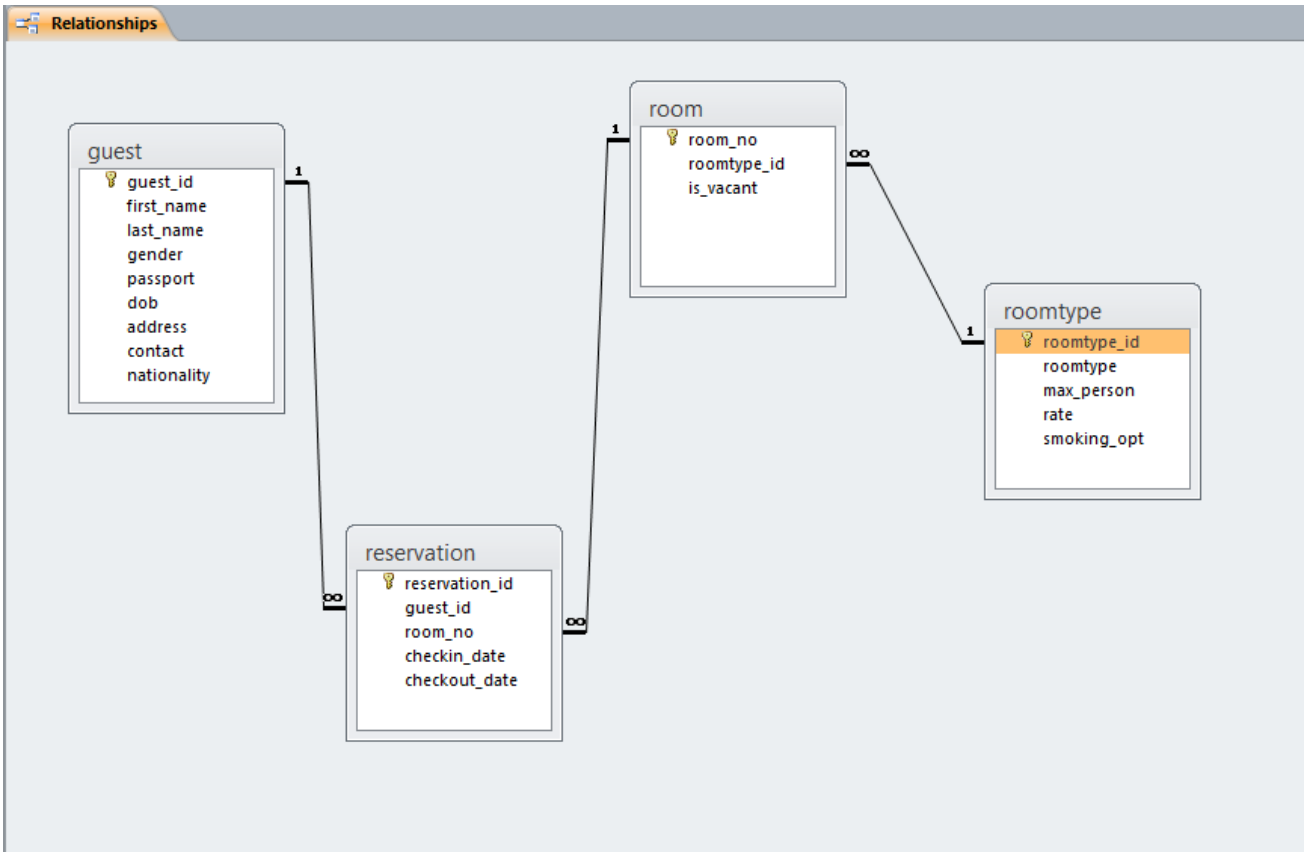
1. Guest Table

2. Room Table

3. Room Type Table

4. Reservation Table

The following is the diagram of relationships of all tables in the database.



Detailed descriptions of these tables are described in the following section.

2.2 Tables Description

1. Guest Table

‘guest table’ is about the details of all guests who are registered with us.

'guest_id', starts with 'G' followed by 3 digits, is the primary key that uniquely identifies each guest.

'first_name' is the first name of the guest.

'last_name' is the last name of the guest.

'gender' is the gender of the guest.

'passport' is the passport number of the guest.

'dob' is the date of birth of the guest.

'address' is the address of the guest.

'contact' is the contact number of the guest.

'nationality' is the nationality of the guest.

guest

guest_id	first_name	last_name	gender	passport	dob	address	contact	nationality
G001	Michael	Johnson	M	134567	19-Oct-79	No.112, Strand Rd	86712345	England
G002	Jonathan	Smith	M	123678	10-Jul-82	No.83, Broadway Rd	23459867	Scotland
G003	Nicky	Li	M	968678	08-Sep-83	No.314,Sembawang Drive	89097890	Singapore
G004	Myo Thet	Tun	M	986678	24-Dec-80	No.34,Ross Street	90981234	Myanmar
G005	Monica	Bellucci	F	457834	12-Mar-76	No.56,Roserio Road	90983456	Italy
G006	Adriano	Elba	M	126577	23-Jun-78	No.45,Vertero Road	98774533	Brazil
G007	Robbie	Willams	M	232344	13-Oct-66	No.62,Shan Road	92334556	England
G008	Roberto	Baggio	M	236754	12-Jun-77	No.54,Saros Street	97642333	Italy
G009	Catharine	Li	F	456734	10-Dec-77	No.63,17th Street	90091233	China
G010	Lin	Tun	M	123456	13-Dec-80	No.233,Yangon Road	98891244	Myanmar
G011	Cindy	Tan	F	121134	12-Jan-87	No.210,Yishun Ave 1	98322122	Singapore
G012	Kenny	Teo	M	545521	02-May-77	No.23,Riosa Road	76775534	Hong Kong
G013	Kate	Hillow	F	542219	09-Jan-72	No.34,New Velly Road	12445644	USA
G014	Christiano	Ronaldo	M	656634	22-Oct-80	No.210,Portego Road	34224211	Portugal
G015	Andy	Townsend	M	342190	21-Mar-70	No.67,New Hampshire Road	90912434	England

2. Room Table

'room table' is about all the rooms in the hotel. There are 10 rooms in the first story, from 101 to 110, and another 10 rooms in the second story, from 201 to 210. This table is linked to 'roomtype table'.

'room_no' is the primary key that uniquely identifies each room.

'roomtype_id' is the ID of the room type for each room and is the foreign key which joins with 'roomtype table'.

'is_vacant' is to check whether the room is vacant or not at the current moment. This field may have null value sometimes, for example, when the room is under renovation period then it is neither vacant nor occupied.

room

room_no	roomtype_id	is_vacant
101	sin	no
102	sin	yes
103	sin	yes
104	dou	yes
105	dou	no
106	dou	no
107	fam	yes
108	fam	yes
109	del	no
110	del	no
201	sin	
202	sin	no
203	sin	yes
204	dou	
205	dou	yes
206	dou	no
207	fam	no
208	fam	
209	del	yes
210	del	no

3. Roomtype Table

'roomtype table' describes all the types of rooms in the hotel, namely, Single, Double, Family and Deluxe.

'roomtype_id' shows the ID of the 'roomtype' and is the primary key of 'roomtype table'.

'roomtype' describes the types of rooms.

'max_person' shows the maximum persons allowed in a specific room type.

'rate' shows the room rate per day.

'smoking_opt' describes whether smoking is allowed or not in this room type.

roomtype

roomtype_id	roomtype	max_person	rate	smoking_opt
del	Deluxe	7	$100.00	N
dou	Double	2	$30.00	Y
fam	Family	7	$80.00	N
sin	Single	1	$20.00	Y

4. Reservation Table

'reservation table ' is the transaction table that records all the reservations of the guests' check ins and check outs information. This table is linked to all other tables, 'guest table', 'room table' and 'roomtype table'.

'reservation_id' is the ID for each reservation and is the primary key of the table.

'guest_id' is the foreign key which is linked to 'guest table'.

'room_no' is the foreign key which is linked to 'room table'.

'checkin_date' is the date that the guest checked in.

'checkout_date' is the date that the guest checked out.

reservation

reservation_id	guest_id	room_no	checkin_date	checkout_date
R001	G001	101	12-Nov-13	22-Nov-13
R002	G002	202	15-Nov-13	24-Nov-13
R003	G003	103	01-Oct-14	10-Oct-14
R004	G004	209	07-Oct-14	15-Oct-14
R005	G005	207	07-Oct-14	12-Oct-14
R006	G006	106	12-Oct-14	17-Oct-14
R007	G007	102	03-Oct-14	10-Oct-14
R008	G008	103	11-Oct-14	17-Oct-14
R009	G009	106	18-Oct-14	22-Oct-14
R010	G010	101	17-Oct-14	25-Oct-14
R011	G002	103	28-Oct-14	01-Nov-14
R012	G004	105	01-Nov-14	12-Nov-14
R013	G012	106	02-Nov-14	12-Nov-14
R014	G011	109	14-Dec-14	22-Dec-14
R015	G015	206	22-Dec-14	29-Dec-14
R016	G013	210	13-Dec-14	19-Dec-14
R017	G014	110	12-Dec-14	19-Dec-14
R018	G002	207	14-Dec-14	22-Dec-14
R019	G005	106	13-Dec-14	22-Dec-14
R020	G008	210	21-Dec-14	31-Dec-14

3. SQL QUERY LIST

1. Guest details report

SELECT guest_id & ', ' & first_name & ' ' & last_name & '''s nationality is ' & nationality & ', is born in ' & **Format**(dob,'dddd,mmmm dd,yyyy') & ', and passport number is ' & passport & '.' **AS** [Guest details information]

FROM guest;

Type of commands used:

Alias, Projection, Concatenation, Single-Row function

Purpose:

This query shows guests' information in line by line format. This report can be useful when it is needed to print out guests' information on paper line by line.

2. List of unavailable and occupied rooms

SELECT RO.room_no **AS** [Room No], RT.roomtype **AS** [Room Type], **Format**(**Round**(RT.rate,0),'$#00') **AS** [Rate Per Day], **NZ**(RO.is_vacant,'Being Repaired') **AS** [Is Vacant]

FROM room **AS** RO, roomtype **AS** RT

WHERE (RO.is_vacant **IS NULL OR** RO.is_vacant='no') **AND** RO.roomtype_id=RT.roomtype_id;

Type of commands used:

Aliases, Projection, Restriction, Join, Single-Row Function, Logical Operator, Comparison Operator, Null Value Handling

Purpose:

This query displays all the occupied and unavailable rooms in the hotel with room type, rate and vacancy status. To handle the "null values" in this table, "Being Repaired" was shown for the rooms that are under repaired. This query is useful when it is needed to check that the rooms are under rennovating or under repairing period.

3. Monthly Guests Report from 1 to 31 Oct 14

SELECT R.reservation_id **AS** [Reservation ID], R.guest_id **AS** [Guest ID], **Ucase**(first_name) & ', ' & **left**(last_name,1) **AS** Name, room_no **AS** Room, checkin_date **AS** [Checkin Date], checkout_date **AS** [Checkout Date], **DateDiff**('d',checkin_date,checkout_date) **AS** [Days Stayed]

FROM reservation **AS** R, guest **AS** G

WHERE (checkin_date **BETWEEN** #01-Oct-2014# **AND** #31-Oct-2014#) **AND** R.guest_id=G.guest_id

ORDER BY checkin_date, room_no;

Type of commands used:

Aliases, Restriction, Projection, Concatenation, Single-Row Function, Sorting, Join, Logical Operator, Comparison Operator

Purpose:

This query shows reservation details of the guests whose checkin dates are from October 1 to 31, 2014.

4. Number of guests by nationality and gender

SELECT nationality, gender, **count**(*) **AS** [Number of Guests]

FROM guest

GROUP BY gender, nationality

ORDER BY nationality;

Type of commands used:

Projection, Multiple-Row Function, Alias, Sorting

Purpose:

This query lists out how many male and female guests are in the guest table by thier nationality.

5. Reservation and charges details

SELECT R.guest_id **AS** [Guest ID], G.first_name & ' ' & G.last_name **AS** [Full Name], R.room_no **AS** [Room No], RT.roomtype **AS** [Room Type], RT.rate **AS** [Rate Per Day], checkin_date **AS** [Checkin Date], checkout_date **AS** [Checkout Date], **DateDiff**('d',checkin_date,checkout_date) **AS** [Days Stayed], **DateDiff**('d',checkin_date,checkout_date)*RT.rate **AS** Amount

FROM guest **AS** G, reservation **AS** R, room **AS** RO, roomtype **AS** RT

WHERE G.guest_id=R.guest_id **AND**

R.room_no=RO.room_no **AND**

RO.roomtype_id=RT.roomtype_id

ORDER BY RT.roomtype;

Type of commands used:

Join, Projection, Restriction, Aliases, Concatenation, Single-Row Function, Comparison Operator, Logical Operator, Sorting

Purpose:

This query can be useful as more detailed reservation report as it includes room type, rate, how many days the guest stayed and total amount for each reservation record.

6. Search names with initial letters

SELECT guest_id **AS** [Guest ID], first_name & ' ' & last_name **AS** [Full Name], gender, nationality, passport, contact

FROM guest

WHERE (last_name **LIKE** 'T*' **AND** gender='M') **OR** first_name **LIKE** 'Ca*' **AND** gender='F';

Type of commands used:

Projection, Restriction, Aliases, Concatenation, Comparison Operator, Logical Operator

Purpose:

This query is useful when you only can recall the guest's name starts with certain characters.

7. List of male guest details in Nov and Dec 2014

SELECT guest_id **AS** [Guest ID], first_name & ' ' & last_name **AS** [Full Name], gender, passport, dob, nationality

FROM guest

WHERE guest_id **IN**

(**SELECT** guest_id

FROM reservation

WHERE (checkin_date **BETWEEN** #01-Nov-2014# **AND** #31-Dec-2014#) **AND** gender='M')

ORDER BY guest_id;

Type of commands used:

Aliases, Restriction, Projection, Concantenation, Comparison Operator, Subquery, Logical Operator, Sorting

Purpose:

This query lists out male guests who made reservations from the period of November and December 2014.

4. TESTING

4.1 Test Plan

Test	Objectives
Case 1	To list out all guests' details report.
Case 2	To check the list of occupied and unavailable rooms.
Case 3	To generate the list of guests from 1 to 31 October 2014.
Case 4	To check how many male and female guests from each country.
Case 5	To list out reservation details and calculate charges.
Case 6	To search guests' names using initial letters and gender.
Case 7	To list out male guests details from Nov to Dec 2014.

4.2 Test Cases and Results

Test Case	1
Objectives	To list out all guests' details report.
Test Data	Guest Details Report
Expected Test Result	The script should be able to list out all guests details report.
Actual Test Result	As shown below
Conclusion	Successful. Guests details report was displayed.

Guest details report

Guest details information
G001, Michael Johnson's nationality is England, is born in Friday,October 19,1979, and passport number is 134567.
G002, Jonathan Smith's nationality is Scotland, is born in Saturday,July 10,1982, and passport number is 123678.
G003, Nicky Li's nationality is Singapore, is born in Thursday,September 08,1983, and passport number is 968678.
G004, Myo Thet Tun's nationality is Myanmar, is born in Wednesday,December 24,1980, and passport number is 986678.
G005, Monica Bellucci's nationality is Italy, is born in Friday,March 12,1976, and passport number is 457834.
G006, Adriano Elba's nationality is Brazil, is born in Friday,June 23,1978, and passport number is 126577.
G007, Robbie Willams's nationality is England, is born in Thursday,October 13,1966, and passport number is 232344.
G008, Roberto Baggio's nationality is Italy, is born in Sunday,June 12,1977, and passport number is 236754.
G009, Catharine Li's nationality is China, is born in Saturday,December 10,1977, and passport number is 456734.
G010, Lin Tun's nationality is Myanmar, is born in Saturday,December 13,1980, and passport number is 123456.
G011, Cindy Tan's nationality is Singapore, is born in Monday,January 12,1987, and passport number is 121134.
G012, Kenny Teo's nationality is Hong Kong, is born in Monday,May 02,1977, and passport number is 545521.
G013, Kate Hillow's nationality is USA, is born in Sunday,January 09,1972, and passport number is 542219.
G014, Christiano Ronaldo's nationality is Portugal, is born in Wednesday,October 22,1980, and passport number is 656634.
G015, Andy Townsend's nationality is England, is born in Saturday,March 21,1970, and passport number is 342190.

Test Case	2
Objectives	To check the list of occupied and unavailable rooms.
Test Data	List of unavailable and occupied rooms
Expected Test Result	The script should be able to list out unavailable and occupied rooms.
Actual Test Result	As shown below
Conclusion	Successful. List of occupied and unavailable rooms was displayed.

List of unavailable and occupied rooms

Room No	Room Type	Rate Per Day	Is Vacant
101	Single	$20	no
201	Single	$20	Being Repaired
202	Single	$20	no
105	Double	$30	no
106	Double	$30	no
204	Double	$30	Being Repaired
206	Double	$30	no
207	Family	$80	no
208	Family	$80	Being Repaired
109	Deluxe	$100	no
110	Deluxe	$100	no
210	Deluxe	$100	no

Test Case	3
Objectives	To generate the list of guests from 1 to 31 October 2014.
Test Data	Monthly Guests Report from 1 to 31 Oct 14
Expected Test Result	The script should be able to list out guests details report from October 1 to 31, 2014.
Actual Test Result	As shown below
Conclusion	Successful. Guests report from October 1 to 31, 2014 was displayed.

Monthly Guests Report from 1 to 31 Oct 14

Reservation ID	Guest ID	Name	Room	Checkin Date	Checkout Date	Days Stayed
R003	G003	NICKY, L	103	01-Oct-14	10-Oct-14	9
R007	G007	ROBBIE, W	102	03-Oct-14	10-Oct-14	7
R005	G005	MONICA, B	207	07-Oct-14	12-Oct-14	5
R004	G004	MYO THET, T	209	07-Oct-14	15-Oct-14	8
R008	G008	ROBERTO, B	103	11-Oct-14	17-Oct-14	6
R006	G006	ADRIANO, E	106	12-Oct-14	17-Oct-14	5
R010	G010	LIN, T	101	17-Oct-14	25-Oct-14	8
R009	G009	CATHARINE, L	106	18-Oct-14	22-Oct-14	4
R011	G002	JONATHAN, S	103	28-Oct-14	01-Nov-14	4

Test Case	4
Objectives	To check how many male and female guests from each country.
Test Data	Number of guests by nationality and gender
Expected Test Result	The script should be able to list out number of guests according to nationality and gender.
Actual Test Result	As shown below
Conclusion	Successful. Number of guests according to naitionality and gender were displayed.

Number of guests by nationality and gender

nationality	gender	Number of Guests
Brazil	M	1
China	F	1
England	M	3
Hong Kong	M	1
Italy	F	1
Italy	M	1
Myanmar	M	2
Portugal	M	1
Scotland	M	1
Singapore	F	1
Singapore	M	1
USA	F	1

Test Case	5
Objectives	To list out reservation details and calculate charges.
Test Data	Reservation and charges details
Expected Test Result	The script should be able to list out all reservation and charges details.
Actual Test Result	As shown below
Conclusion	Successful. Reservation details and charges were displayed.

Reservation and charges details

Guest ID	Full Name	Room No	Room Type	Rate Per Day	Checkin Date	Checkout Date	Days Stayed	Amount
G013	Kate Hillow	210	Deluxe	$100.00	13-Dec-14	19-Dec-14	6	$600.00
G004	Myo Thet Tun	209	Deluxe	$100.00	07-Oct-14	15-Oct-14	8	$800.00
G008	Roberto Baggio	210	Deluxe	$100.00	21-Dec-14	31-Dec-14	10	$1,000.00
G014	Christiano Ronaldo	110	Deluxe	$100.00	12-Dec-14	19-Dec-14	7	$700.00
G011	Cindy Tan	109	Deluxe	$100.00	14-Dec-14	22-Dec-14	8	$800.00
G005	Monica Bellucci	106	Double	$30.00	13-Dec-14	22-Dec-14	9	$270.00
G004	Myo Thet Tun	105	Double	$30.00	01-Nov-14	12-Nov-14	11	$330.00
G006	Adriano Elba	106	Double	$30.00	12-Oct-14	17-Oct-14	5	$150.00
G012	Kenny Teo	106	Double	$30.00	02-Nov-14	12-Nov-14	10	$300.00
G015	Andy Townsend	206	Double	$30.00	22-Dec-14	29-Dec-14	7	$210.00
G009	Catharine Li	106	Double	$30.00	18-Oct-14	22-Oct-14	4	$120.00
G005	Monica Bellucci	207	Family	$80.00	07-Oct-14	12-Oct-14	5	$400.00
G002	Jonathan Smith	207	Family	$80.00	14-Dec-14	22-Dec-14	8	$640.00
G002	Jonathan Smith	202	Single	$20.00	15-Nov-13	24-Nov-13	9	$180.00
G001	Michael Johnson	101	Single	$20.00	12-Nov-13	22-Nov-13	10	$200.00
G002	Jonathan Smith	103	Single	$20.00	28-Oct-14	01-Nov-14	4	$80.00
G008	Roberto Baggio	103	Single	$20.00	11-Oct-14	17-Oct-14	6	$120.00
G003	Nicky Li	103	Single	$20.00	01-Oct-14	10-Oct-14	9	$180.00
G007	Robbie Willams	102	Single	$20.00	03-Oct-14	10-Oct-14	7	$140.00
G010	Lin Tun	101	Single	$20.00	17-Oct-14	25-Oct-14	8	$160.00

Test Case	6
Objectives	To search guests' names using initial letters and gender.
Test Data	Search names with initial letters
Expected Test Result	The script should be able to show the search result of guests' names using initial letters and gender.
Actual Test Result	As shown below
Conclusion	Successful. Searched guests' names were displayed.

Search names with initial letters

Guest ID	Full Name	gender	nationality	passport	contact
G004	Myo Thet Tun	M	Myanmar	986678	90981234
G009	Catharine Li	F	China	456734	90091233
G010	Lin Tun	M	Myanmar	123456	98891244
G012	Kenny Teo	M	Hong Kong	545521	76775534
G015	Andy Townsend	M	England	342190	90912434

Test Case	7
Objectives	To list out male guests details from Nov to Dec 2014.
Test Data	List of male guest details in Nov and Dec 2014
Expected Test Result	The script should be able to list out the male guests details from Nov to Dec 2014.
Actual Test Result	As shown below
Conclusion	Successful. Male guests details report from Nov to Dec 2014 was displayed.

List of male guest details in Nov and Dec 2014

Guest ID	Full Name	gender	passport	dob	nationality
G002	Jonathan Smith	M	123678	10-Jul-82	Scotland
G004	Myo Thet Tun	M	986678	24-Dec-80	Myanmar
G008	Roberto Baggio	M	236754	12-Jun-77	Italy
G012	Kenny Teo	M	545521	02-May-77	Hong Kong
G014	Christiano Ronaldo	M	656634	22-Oct-80	Portugal
G015	Andy Townsend	M	342190	21-Mar-70	England
*					

4.3 Test Logs

Test Case	Result
Case 1	Successful
Case 2	Successful
Case 3	Successful
Case 4	Successful
Case 5	Successful
Case 6	Successful
Case 7	Successful

5. USER MANUAL

5.1 Hardware and Software Requirements

Following are the recommended hardware and software requirements to run the "Hotel Reservation Database System".

5.1.1 Hardware Requirements

Intel Core i5-3230M Processor 2.60 GHz or higher

4 GB RAM

500 GB HDD

CD/DVD ROM Drive

Mouse and Keyboard

5.1.2 Software Requirements

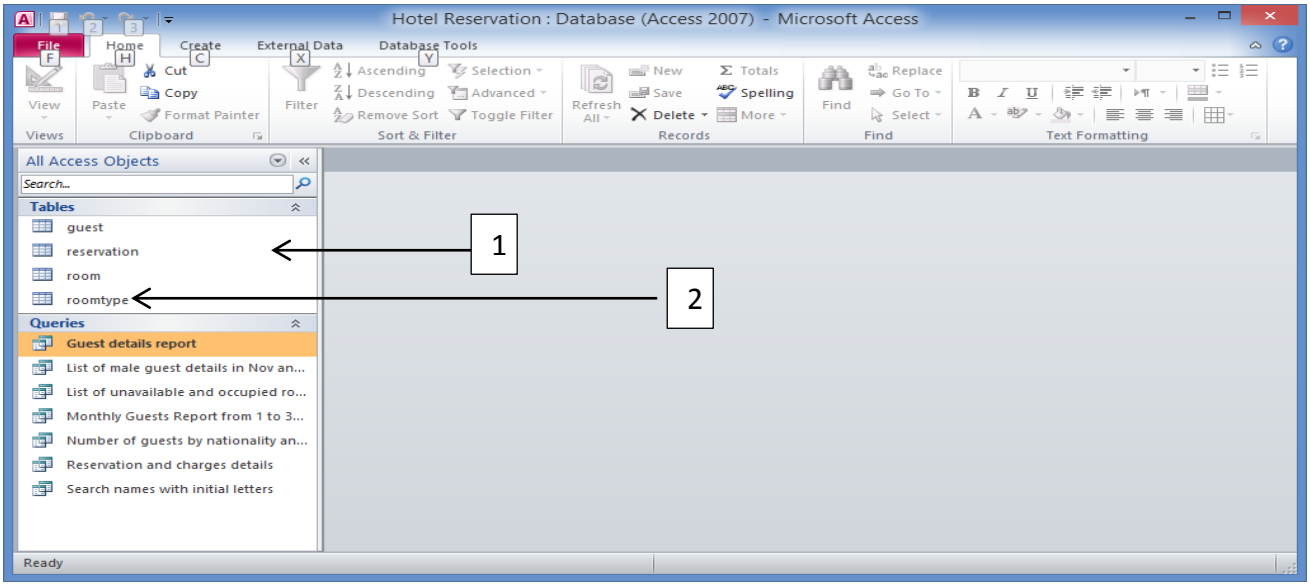
Microsoft Windows Vista/7/8

Microsoft Access 2007 or 2010

5.2 Manual

Insert the Database CD into CD or DVD drive and open My Computer, then click your CD ROM drive.

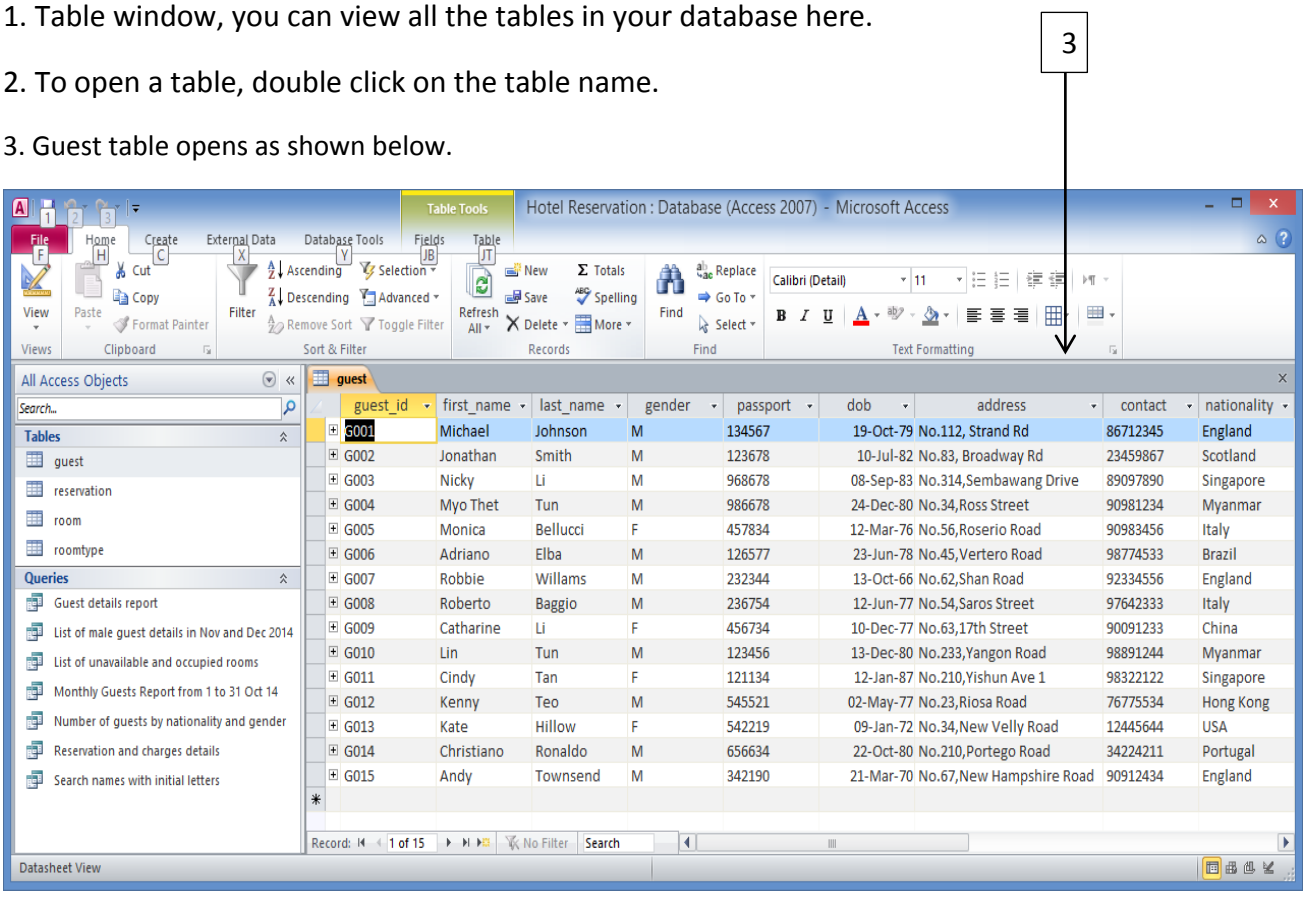
Double click to open “Hotel Reservation.accdb”. The database should be opened like this as shown below.

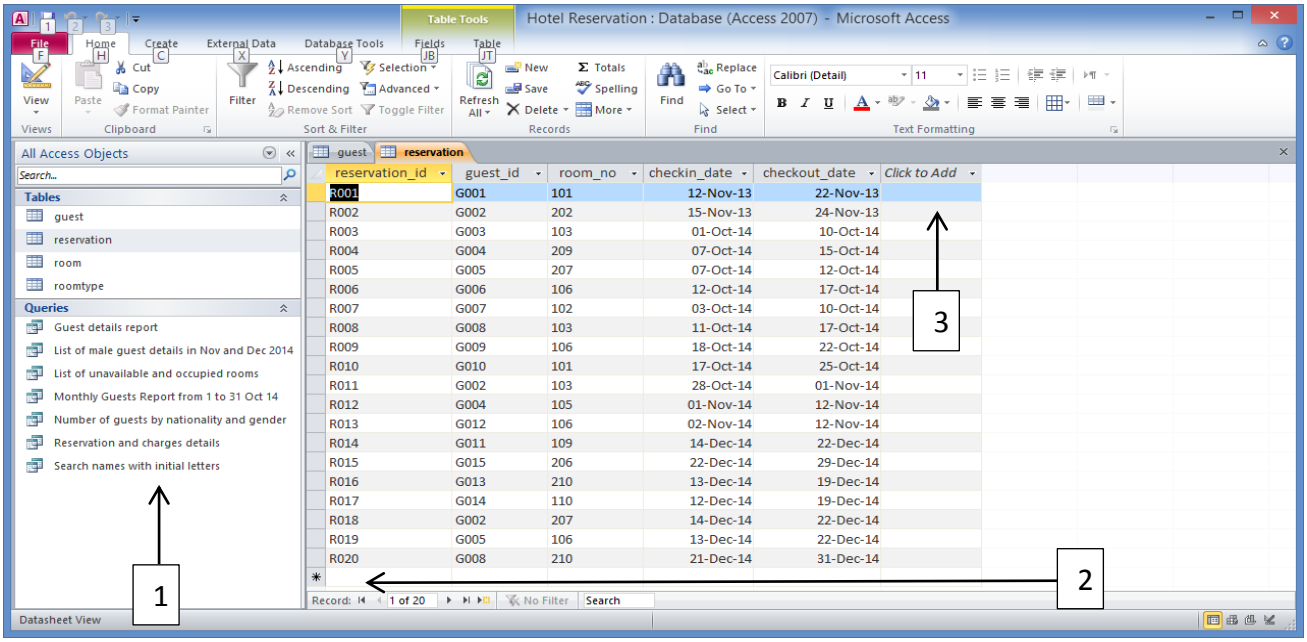


1. Table window, you can view all the tables in your database here.

2. To open a table, double click on the table name.

3. Guest table opens as shown below.

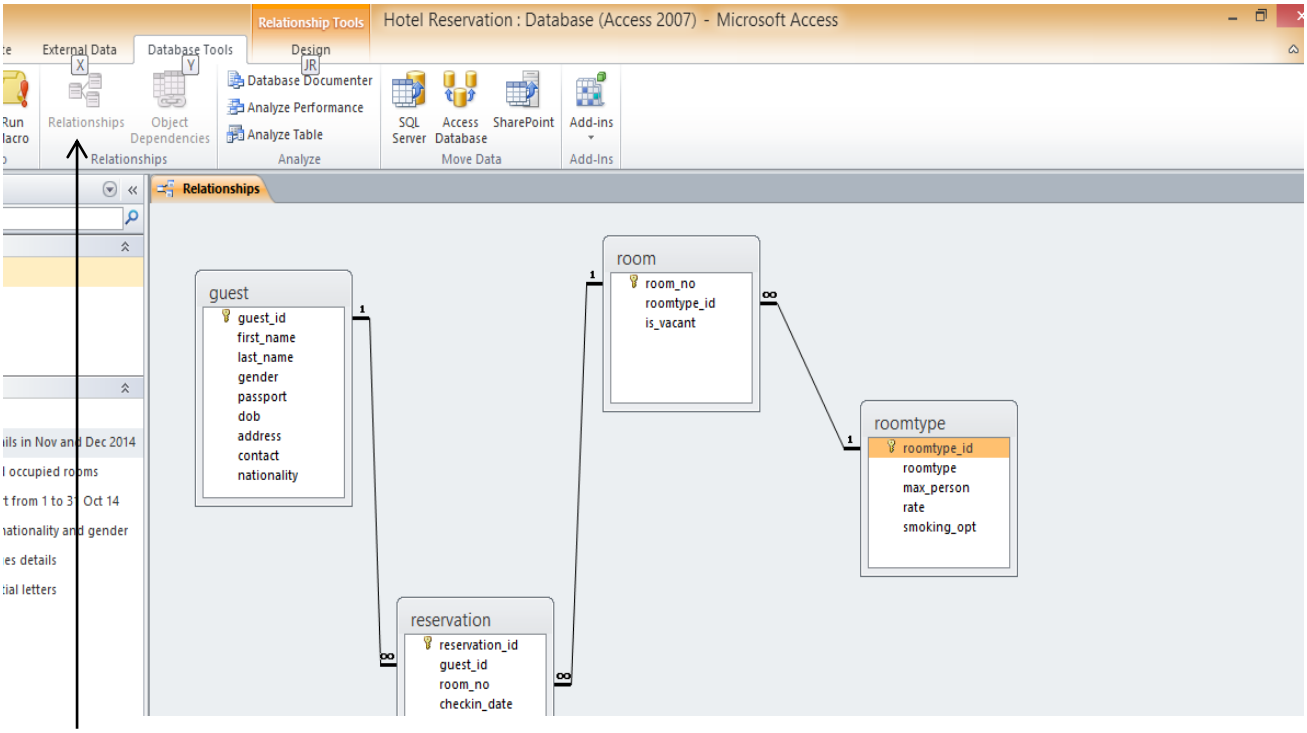




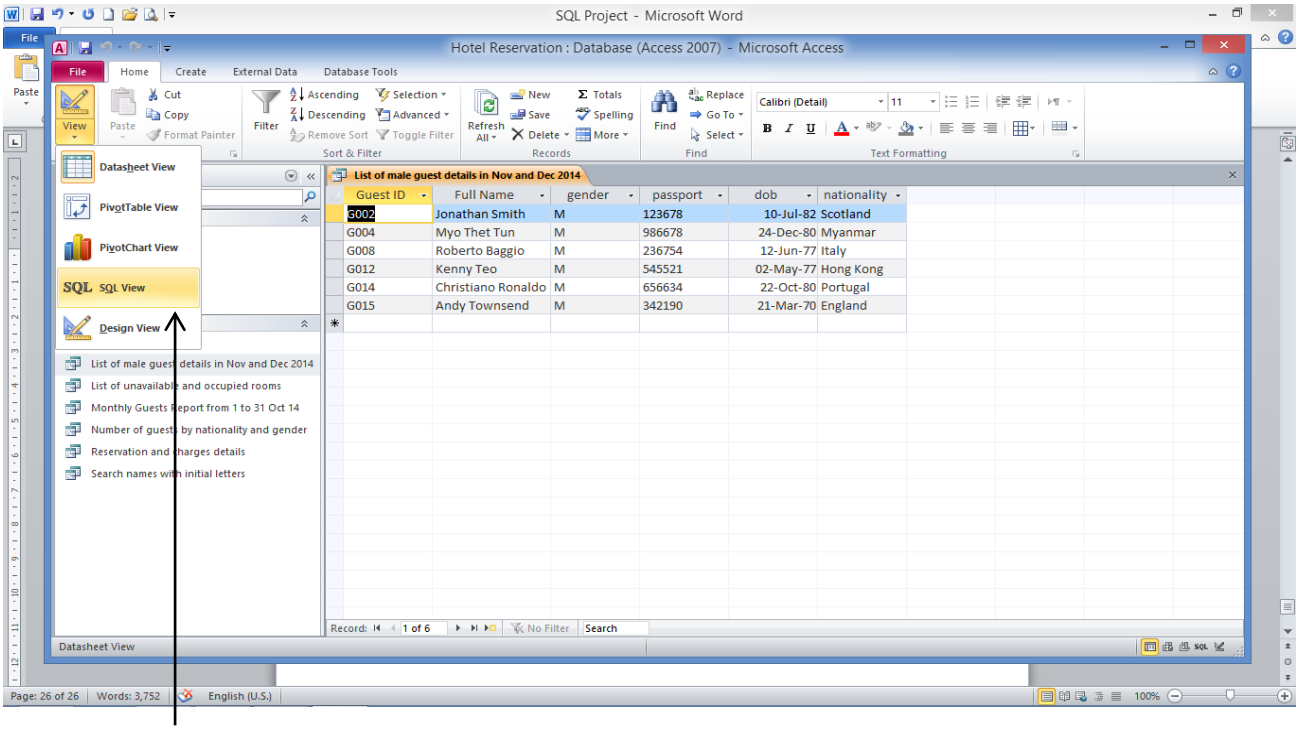
1. Queries window, to open a query, double click a query name.

2. You can add a new record by clicking last line in the table.

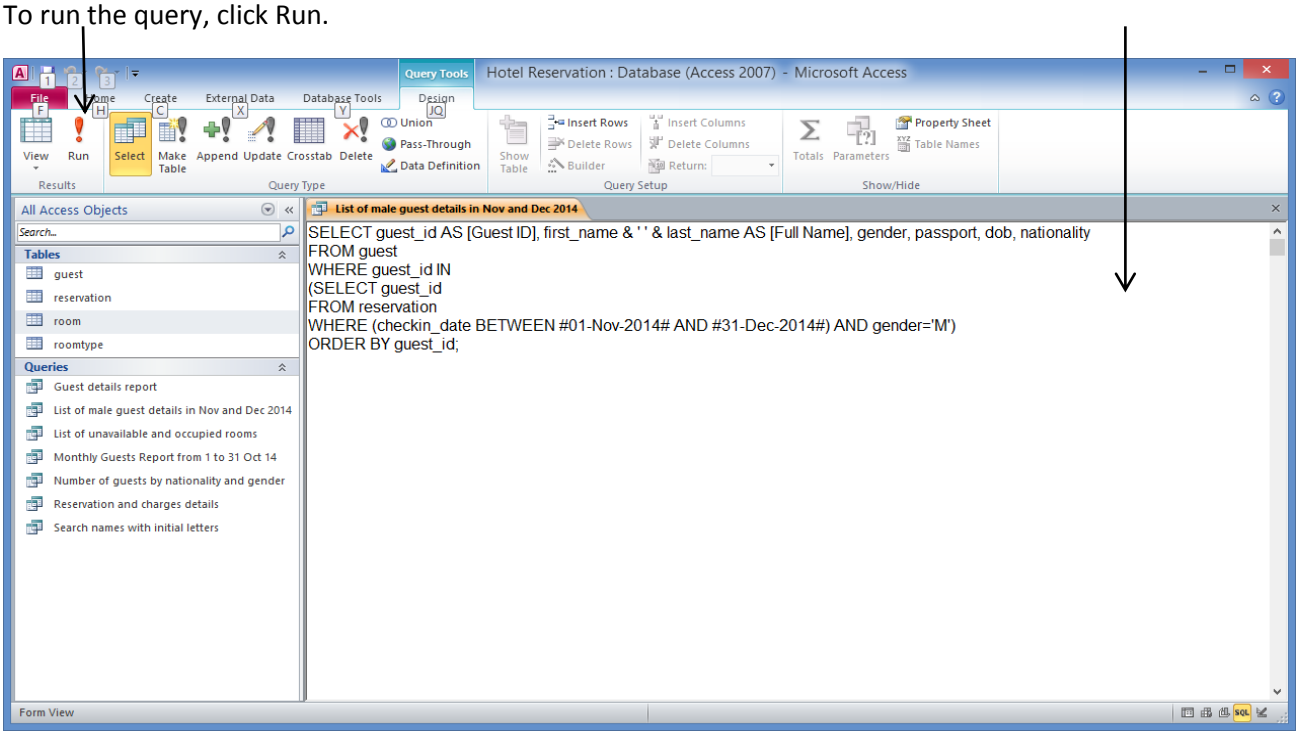
3. You can add a new colum or data field by clicking the last column in the table.



You can view or arrange the relationships of your tables by clicking the Relationships under the Database Tools menu.



To view a query in SQL view, click view icon and select SQL View. This only works when a query is opened. You can view or edit SQL statement as you want. To save it, right click on the query tab title and click Save. To run the query, click Run.



6. CONCLUSION

6.1 Program Strength

Because of using the effectiveness of SQL queries, no matter how much data a table holds, the required data can be extracted easily. It has many features such as handling null values, changing date formats, finding names using wildcard symbols, rounding function for prices, and listing of data by specific month, day or year, etc.

6.2 Program Weakness

The main weakness of the system is that the program developer will need to have a clear understanding how the data are organized in the tables. Another thing is there is no payment table in the database. And the staff have to type in manually for the is vacant field of room table when the reservation has been made to the certain rooms, there is no automation between reserved rooms from reservation table and is vacant field from room table.

6.3 Program Enhancements

Payment table and housekeeping table are the potential major enhancements of the system. Due to limited given time, there may have some errors in the overall database structure and the table structure. These facts will be reviewed and improved in the coming version of the system.

7. REFERENCES

Andy Oppel & Robert Sheldon, A BEGINNER'S GUIDE SQL Third Edition

Larry Rockoff, The Language of SQL

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2014

PROJECT PROPOSAL TITLE:

Hotel Reservation Database System

STUDENT NAME:	Myo Thet Tun
STUDENT ID:	018800021524
SUBJECT CODE:	IT211
CLASS CODE:	P08Sep14IT211A
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SUBJECT:	Structured Query Language
SUBMISSION DATE:	24 November 2014

1. INTRODUCTION

1.1 Hotel's Profile

Tropical Palace Hotel is a small hotel which is located in Mandalay, Myanmar. Mandalay is the second largest city of Myanmar and also a historical city including the grand palace and many historical sites. In the peak seasons, many tourists come to visit this place and this Tropical Palace Hotel becomes a very crowded place. It is a 2-story building which includes 10 rooms in each story. It has various types of rooms including Single, Double, Family and Deluxe rooms. The room numbers have 3 digits, the first digit represents as floor number and it ranges from 101-110, 201-210. Each story has 2 family rooms and 2 deluxe rooms and the others are 3 single rooms and 3 double rooms. Because of its good services and hospitality of staffs, the hotel's reputation is growing high and more guests are coming.

1.2 Current System

Since the hotel was opened, the staffs have been doing all the works manually, that is, the staffs have to record all the daily transactions manually on the paper-based system. The staffs have to write down every detail in the books daily. This is really a time-consuming task and the data inconsistency is also very high. Now, with the hotel's growing reputation in the city, the increasing numbers of guests day by day make the hotel's staffs more and more difficult to handle the daily transactions on manual paper-based system. The following are the problems that the current system is facing with.

1.3 Problems Background

Slow Retrieval of Data – The information is stored in different parts of locations and it may take a long time to retrieve the data. Sometimes, it can take up to 20 to 30 minutes finding the relevant information. It is really a time-consuming task.

Inconsistency in Updating Data – Because data stored in the books are written manually and they are not connected together as a system, the staff may update in one file but may miss to update in another file. So, the inconsistency in updating data can easily be occurred.

Paper Wastage – Much paper is wasted due to the number of records daily and the number of increasing guests. Duplication of data can be occurred by repeating the same thing over and over.

Unproductive Use of Storage Space – Paper takes up a massive amount of space in the site.

Poor Customer Service – Sometimes, the information requested may be unavailable.

No Reliable Database System – The records on paper can be lost or damaged at any time. Since there is no backup for the data, the lost or damaged documents cannot be regained at all.

No Reliable Security System – Writing on paper is totally lack of security system. Any unauthorized person may view, update or even the data can be stolen.

These are the weak points that the current system is facing with.

1.4 Objectives

The main purpose of the new system is to handle all the problems that the old system is currently facing with. With the newly implemented system, the records can be easily created. There will be no duplication of data records because all the data records are controlled by a primary key called ID. There is also an error checking method to detect the data type error (e.g. the record cannot be stored when user types the alphabet character for the maximum persons, a numeric value must be typed in). For retrieval of the records, it is much faster and easier than the previous system. Editing and deleting also can be easily and quickly performed. The records are to be stored in the security enabled database system which can store many lines of data records. There will be no store room at all to store the documents and no paper wastage at all. So, all the current problems will be solved with this single "**Hotel Reservation Database System**". The staff will only need to sit at the workstation just to perform all these tasks.

These are the advantages of the new "**Hotel Reservation Database System**".

1.5 Conclusion

This newly developed database system will ensure that all the reservation problems that the hotel is currently encountered. The security system of the database and many other features like data integrity, data validation check are included in the database system. And, finally, the main purpose, using the very effective SQL statements, users can easily extract the record that they need and to print out specific reports or data queries.

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