A Study on **HOTEL MANAGEMENT DATABASE SYSTEM**

Visakhapatnam

A Project Report submitted in partial fulfillment for the award of

MBA (Fintech)

Submitted by

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GITAM INSTITUTE OF MANAGEMENT

GITAM UNIVERSITY

(U/s 3 of UGC Act)

VISAKHAPATNAM

**(2019-21**)

DECLARATION

I, the undersigned, hereby declare that, the **project titled “A Study on HOTEL MANAGEMENT DATABASE SYSTEM**, Visakhapatnam” submitted to GITAM Institute of Management, GITAM University for the award of the Masters of Business Administration (Fintech) is the original work done by me, under the guidance of Mr. Diwakar Allavarapu, Associate Professor, GITAM Institute of Management. The empirical findings in this report are based on the data collected by me. It was not copied from any other project. The project has not been submitted to any Substitute/University for the award of any Diploma/Degree.

**Date :- 30/12/2019 AMMAN NAIDU**

Place: - Visakhapatnam **Regd No. : 121923901004**

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**Amman Naidu**

**Regd No. : 121923901004**

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# INTRODUCTION: Overview of project & analyze the requirements

The main objective of this project is to create a database management system for a hotel. The hotel can have multiple chains, which can further have multiple hotels. Therefore, we need an organized management system, which can easily manage all the operations and data of the hotel chains and hotels respectively. We will be managing the below areas of the hotel database management system.

− The hotel chains, their details.

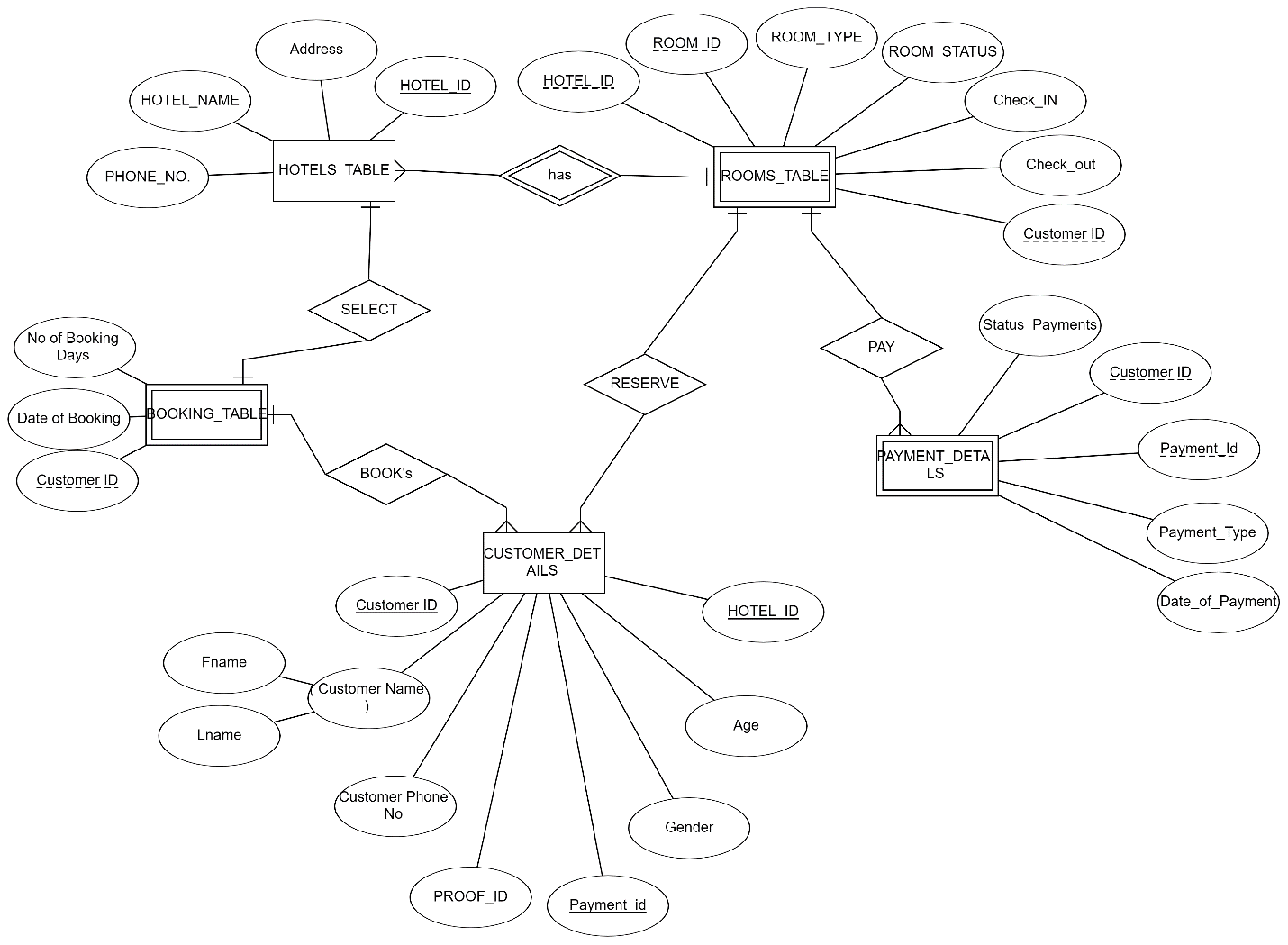
− The hotels in each chain and their details and other information like the rooms and their description etc.

− Information about guests.

− Managing bookings and other services used by the guests.

# DATABASE DESIGNING: Starting with drawing the ERR diagram

We started with designing the structure of the database. We drew the ERR diagram on a paper, noting down all the tables required. We designed each table with columns and attributes respectively and trying to make an idea about the relationships between tables. We tried to keep the tables in a form where we can reduce the data redundancy and tried to make it accessible in an easy and simple way. The ERR diagram created is as below:



# Exploring the TABLES

**Table 1 : customer details**

**SQL> create table customer\_details (customer\_ID number(10) primary key,fname varchar(10),lname varchar(10),phone\_no number(15),DOB date,age int , proof\_ID number(15),gender char(10));**

SQL> desc customer\_details

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMER\_ID NOT NULL NUMBER(10)

FNAME VARCHAR2(10)

LNAME VARCHAR2(10)

PHONE\_NO NUMBER(15)

DOB DATE

AGE NUMBER(38)

PROOF\_ID NUMBER(15)

GENDER CHAR(10)

**Table 2: booking table**

**create table booking\_table( booking\_days int, date\_of\_booking date,customer\_ID not null, FOREIGN KEY (customer\_ID) REFERENCES customer\_details(customer\_ID));**

SQL> desc booking\_table;

Name Null? Type

----------------------------------------- -------- ----------------------------

BOOKING\_DAYS NUMBER(38)

DATE\_OF\_BOOKING DATE

CUSTOMER\_ID NOT NULL NUMBER(10)

**Table 3: hotel table**

**SQL> create table hotel\_table (hotel\_name varchar2(10) not null,hotel\_ID varchar2(5) primary key,address varchar2(10) not null,hotel\_contact number(15));**

SQL> desc hotel\_table;

Name Null? Type

----------------------------------------- -------- ----------------------------

HOTEL\_NAME NOT NULL VARCHAR2(10)

HOTEL\_ID NOT NULL VARCHAR2(5)

ADDRESS NOT NULL VARCHAR2(10)

HOTEL\_CONTACT NUMBER(15)

**Table 4: Room Table**

**SQL> create table room\_table(room\_id varchar2(5) primary key,room\_type varchar2(5) default 'NAC',no\_beds int not null,check\_in date,check\_out date,customer\_ID ,FOREIGN KEY (customer\_ID) REFERENCES customer\_details(customer\_ID),hotel\_ID not null,FOREIGN KEY (hotel\_ID) REFERENCES hotel\_table(hotel\_ID));**

SQL> desc room\_table;

Name Null? Type

----------------------------------------- -------- ----------------------------

ROOM\_ID NOT NULL VARCHAR2(5)

ROOM\_TYPE VARCHAR2(5)

NO\_BEDS NOT NULL NUMBER(38)

CHECK\_IN DATE

CHECK\_OUT DATE

CUSTOMER\_ID NUMBER(10)

HOTEL\_ID NOT NULL VARCHAR2(5)

**Table 5: Payment details**

**SQL> create table payment\_details ( patment\_ID number(10) primary key, payment\_type varchar2(10) default 'cash',date\_of\_payment date,amount int, customer\_ID,FOREIGN KEY (customer\_ID) REFERENCES customer\_details(customer\_ID));**

SQL> desc payment\_details;

Name Null? Type

----------------------------------------- -------- ----------------------------

PATMENT\_ID NOT NULL NUMBER(10)

PAYMENT\_TYPE VARCHAR2(10)

DATE\_OF\_PAYMENT DATE

CUSTOMER\_ID NUMBER(10)

AMOUNT NUMBER(38)

# Queries And their Solutions

SQL> select \* from customer\_details;

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201901 amman naidu 7036652677 10-DEC-97 23 25588

M

201902 hemanth karanam 7207105192 08-SEP-96 22 25738

M

201903 sai krishna 8945875215 15-JUL-98 52 15838

M

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201904 vijay krishna 5895872546 19-DEC-00 19 12588

M

201905 sahithi paul 7858964525 25-DEC-92 28 25987

F

201906 chandra babu 7858948925 25-JAN-92 28 45987

M

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201907 akhil reddy 9858974826 25-MAR-92 28 49387

M

201908 balaji appari 8019660694 29-JUL-92 29 45827

M

201909 akhil kumar 9441391141 29-MAR-89 40 45852

M

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201910 sun samson 9441391139 29-MAR-79 30 45982

M

201911 saradhi yellapu 9441891139 29-NOV-79 30 87982

M

201912 yamsi krishna 8978264515 29-NOV-80 39 87988

M

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201913 sudheer killi 8978155318 19-FEB-58 58 87987

M

201914 ramesh shasu 8978155317 15-APR-54 51 87998

f

201915 ram bhanu 8978155567 16-APR-89 45 87996

f

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201916 laxhmi subbha 8978155523 01-MAY-98 45 85446

f

201917 meher anusha 8976545523 14-MAR-91 47 85445

f

201918 aammu prai 9866053124 11-JUL-24 54 25369

f

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201919 akmak akshtha 9866053192 19-JUN-69 38 82586

f

201920 apriprila neeharika 8976545956 23-JUN-65 56 85328

f

20 rows selected.

##################################################################################################################################

BOOKING\_DAYS DATE\_OF\_B CUSTOMER\_ID

------------ --------- -----------

9 26-JUL-19 201901

2 27-JUL-19 201902

20 27-JUL-19 201903

18 25-JUL-19 201904

2 26-JUL-19 201905

5 26-JUL-19 201906

3 26-JUL-19 201907

4 27-JUL-19 201908

40 26-JUL-19 201909

1 26-JUL-19 201910

4 27-JUL-19 201911

BOOKING\_DAYS DATE\_OF\_B CUSTOMER\_ID

------------ --------- -----------

8 27-JUL-19 201912

21 26-JUL-19 201913

11 25-JUL-19 201914

18 26-JUL-19 201915

25 27-JUL-19 201916

7 25-JUL-19 201917

5 27-JUL-19 201918

4 25-JUL-19 201919

4 26-JUL-19 201920

20 rows selected.

#####################################################################################################################

SQL> select \* from hotel\_table;

HOTEL\_NAME HOTEL ADDRESS HOTEL\_CONTACT

---------- ----- ---------- -------------

hotel1 H1 vizag 8019660694

hotel2 H2 hyderabad 9505526999

hotel3 H3 hyderabad 9705526999

hotel4 H4 bangalore 9703483549

#############################################################################################################################

SQL> select \* from room\_table;

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

----- ----- ---------- --------- --------- ----------- -----

101 AC 2 28-JUL-19 05-AUG-19 201901 H1

102 AC 2 28-JUL-19 29-JUL-19 201902 H1

103 AC 2 H1

104 AC 3 H1

105 NAC 3 H1

106 NAC 2 H1

107 NAC 2 H1

108 NAC 4 H1

109 AC 4 H1

110 NAC 2 20-JUL-19 09-AUG-19 201903 H1

201 AC 2 20-JUL-19 07-AUG-19 201904 H2

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

----- ----- ---------- --------- --------- ----------- -----

202 AC 1 29-JUL-19 30-JUL-19 201905 H2

203 NAC 2 30-JUL-19 04-AUG-19 201906 H2

204 AC 4 31-JUL-19 02-AUG-19 201907 H2

205 AC 2 30-JUL-19 02-AUG-19 201908 H2

206 AC 4 21-JUL-19 30-AUG-19 201909 H2

207 AC 3 01-AUG-19 02-AUG-19 201910 H2

208 NAC 5 H2

209 AC 5 H2

210 AC 2 H2

301 AC 2 H3

302 AC 3 H3

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

----- ----- ---------- --------- --------- ----------- -----

303 AC 3 H3

304 NAC 4 H3

305 NAC 2 H3

306 AC 3 01-JUL-19 02-AUG-19 201911 H3

307 AC 2 31-JUL-19 08-AUG-19 201912 H3

308 AC 2 31-JUL-19 20-AUG-19 201913 H3

309 AC 2 31-JUL-19 10-AUG-19 201914 H3

310 AC 2 31-JUL-19 18-AUG-19 201915 H3

401 AC 2 25-JUL-19 21-AUG-19 201916 H4

402 AC 2 29-JUL-19 05-AUG-19 201917 H4

403 AC 2 02-AUG-19 06-AUG-19 201918 H4

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

----- ----- ---------- --------- --------- ----------- -----

404 NAC 2 01-AUG-19 04-AUG-19 201919 H4

405 NAC 3 27-JUL-19 31-JUL-19 201920 H4

406 NAC 4 H4

407 NAC 4 H4

408 AC 2 H4

409 AC 2 H4

410 AC 4 H4

40 rows selected.

###################################################################################################

SQL> select \* from payment\_details;

PATMENT\_ID PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- ---------- --------- ----------- ----------

1 cash 26-JUN-19 201901 900

2 card 27-JUN-19 201902 200

3 cash 27-JUN-19 201903 2000

4 card 25-JUN-19 201904 1800

5 online 26-JUN-19 201905 200

6 online 26-JUN-19 201906 500

7 online 26-JUN-19 201907 300

8 online 27-JUN-19 201908 400

9 online 26-JUN-19 201909 4000

10 cash 27-JUN-19 201910 100

11 card 27-JUN-19 201911 400

PATMENT\_ID PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- ---------- --------- ----------- ----------

12 cash 27-JUN-19 201912 800

13 online 26-JUN-19 201913 2100

14 online 25-JUN-19 201914 1100

15 cash 26-JUN-19 201915 1800

16 card 27-JUN-19 201916 2500

17 card 25-JUN-19 201917 700

18 cash 27-JUN-19 201918 500

19 online 25-JUN-19 201919 400

20 online 26-JUN-19 201920 400

20 rows selected.

###################################################################################################

**1)TOTAL NUMBER OF ROOMS IN EACH HOTEL**

SQL> select hotel\_id,count(room\_id) from room\_table group by hotel\_id;

HOTEL COUNT(ROOM\_ID)

----- --------------

H3 10

H4 10

H1 10

H2 10

**2)TOTAL NO OF UNFILLED ROOMS IN EACH HOTEL**

SQL> select count(room\_id),hotel\_id from room\_table where customer\_id is null group by hotel\_id;

COUNT(ROOM\_ID) HOTEL

-------------- -----

5 H3

5 H4

7 H1

3 H2

**3)TOTAL NO OF FILLED ROOMS IN EACH HOTEL**

SQL> select count(room\_id),hotel\_id from room\_table where customer\_id is not null group by hotel\_id;

COUNT(ROOM\_ID) HOTEL

-------------- -----

5 H3

5 H4

3 H1

7 H2

**4)DISPLAY THE CUSTOMER DETAILS WITH NAME HAVING 'al'**

SQL> select \* from customer\_details where fname like '%al%';

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER

----------

201908 balaji appari 8019660694 29-JUL-92 29 45827

M

**5)DISPLAY THE AVG,max and min AGE OF CUSTOMERS WHO ARE BOOKING HOTELS**

SQL> select avg(age),max(age),min(age) from CUSTOMER\_DETAILS;

AVG(AGE) MAX(AGE) MIN(AGE)

---------- ---------- ----------

38.1 58 19

**6)display the room\_id and hotel\_id with in the hotels having 3 beds in the room**

SQL> select room\_id,hotel\_id from room\_table where NO\_BEDS=3;

ROOM\_ HOTEL

----- -----

104 H1

105 H1

207 H2

302 H3

303 H3

306 H3

405 H4

7 rows selected.

**7)display the room\_id and hotel\_id with in the hotels having 3 beds in the room and which are Non AC**

SQL> select room\_id,hotel\_id from room\_table where NO\_BEDS=3 and room\_type='NAC';

ROOM\_ HOTEL

----- -----

105 H1

405 H4

**8)Display the names of custmers who booked for more than 15 days**

SQL> select fname,lname from customer\_details where customer\_id in(select customer\_id from booking\_table where booking\_days>15);

FNAME LNAME

---------- ----------

sai krishna

vijay krishna

akhil kumar

sudheer killi

ram bhanu

laxhmi subbha

6 rows selected.

**9)join roomtable and payment table**

**SQL> select \* from room\_table join payment\_details on room\_table.customer\_id=payment\_details.customer\_id;**

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

101 AC 2 28-JUL-19 05-AUG-19 201901 H1 1

cash 26-JUN-19 201901 900

102 AC 2 28-JUL-19 29-JUL-19 201902 H1 2

card 27-JUN-19 201902 200

110 NAC 2 20-JUL-19 09-AUG-19 201903 H1 3

cash 27-JUN-19 201903 2000

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

201 AC 2 20-JUL-19 07-AUG-19 201904 H2 4

card 25-JUN-19 201904 1800

202 AC 1 29-JUL-19 30-JUL-19 201905 H2 5

online 26-JUN-19 201905 200

203 NAC 2 30-JUL-19 04-AUG-19 201906 H2 6

online 26-JUN-19 201906 500

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

204 AC 4 31-JUL-19 02-AUG-19 201907 H2 7

online 26-JUN-19 201907 300

205 AC 2 30-JUL-19 02-AUG-19 201908 H2 8

online 27-JUN-19 201908 400

206 AC 4 21-JUL-19 30-AUG-19 201909 H2 9

online 26-JUN-19 201909 4000

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

207 AC 3 01-AUG-19 02-AUG-19 201910 H2 10

cash 27-JUN-19 201910 100

306 AC 3 01-JUL-19 02-AUG-19 201911 H3 11

card 27-JUN-19 201911 400

307 AC 2 31-JUL-19 08-AUG-19 201912 H3 12

cash 27-JUN-19 201912 800

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

308 AC 2 31-JUL-19 20-AUG-19 201913 H3 13

online 26-JUN-19 201913 2100

309 AC 2 31-JUL-19 10-AUG-19 201914 H3 14

online 25-JUN-19 201914 1100

310 AC 2 31-JUL-19 18-AUG-19 201915 H3 15

cash 26-JUN-19 201915 1800

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

401 AC 2 25-JUL-19 21-AUG-19 201916 H4 16

card 27-JUN-19 201916 2500

402 AC 2 29-JUL-19 05-AUG-19 201917 H4 17

card 25-JUN-19 201917 700

403 AC 2 02-AUG-19 06-AUG-19 201918 H4 18

cash 27-JUN-19 201918 500

ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL PATMENT\_ID

----- ----- ---------- --------- --------- ----------- ----- ----------

PAYMENT\_TY DATE\_OF\_P CUSTOMER\_ID AMOUNT

---------- --------- ----------- ----------

404 NAC 2 01-AUG-19 04-AUG-19 201919 H4 19

online 25-JUN-19 201919 400

405 NAC 3 27-JUL-19 31-JUL-19 201920 H4 20

online 26-JUN-19 201920 400

20 rows selected.

**10)display the check out date and payment date .**

SQL> select check\_out,date\_of\_payment from room\_table join payment\_details on room\_table.customer\_id=payment\_details.customer\_id;

CHECK\_OUT DATE\_OF\_P

--------- ---------

05-AUG-19 26-JUN-19

29-JUL-19 27-JUN-19

09-AUG-19 27-JUN-19

07-AUG-19 25-JUN-19

30-JUL-19 26-JUN-19

04-AUG-19 26-JUN-19

02-AUG-19 26-JUN-19

02-AUG-19 27-JUN-19

30-AUG-19 26-JUN-19

02-AUG-19 27-JUN-19

02-AUG-19 27-JUN-19

CHECK\_OUT DATE\_OF\_P

--------- ---------

08-AUG-19 27-JUN-19

20-AUG-19 26-JUN-19

10-AUG-19 25-JUN-19

18-AUG-19 26-JUN-19

21-AUG-19 27-JUN-19

05-AUG-19 25-JUN-19

06-AUG-19 27-JUN-19

04-AUG-19 25-JUN-19

31-JUL-19 26-JUN-19

20 rows selected.

**11)dispaly the name of customer who booked room no 201;**

SQL> select \* from customer\_details where customer\_id in (select customer\_id from room\_table where room\_id='202');

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER

----------

201905 sahithi paul 7858964525 25-DEC-92 28 25987

F

**12)display the total amount of collected by each hotel branch**

SQL> select hotel\_id,sum(amount) as total from room\_table join payment\_details on room\_table.customer\_ID=payment\_details.customer\_ID group by hotel\_id;

HOTEL TOTAL

----- ----------

H3 6200

H4 4500

H1 3100

H2 7300

**13)get customer id of females who booked hotel in hyderabad**

SQL> select address,customer\_id from hotel\_table join room\_table on hotel\_table.hotel\_id=room\_table.hotel\_id where customer\_ID in (select customer\_ID from customer\_details where gender='f'and address='hyderabad');

ADDRESS CUSTOMER\_ID

---------- -----------

hyderabad 201914

hyderabad 201915

**14)SQL statement to know how many customers have listed their names.**

SQL> select count (\*) from customer\_details;

COUNT(\*)

----------

20

**15)query to know about the max amount paid**

SQL> select max(amount) from payment\_details;

MAX(AMOUNT)

-----------

4000

**16) query to know about the min amount paid**

SQL> select min(amount) from payment\_details;

MIN(AMOUNT)

-----------

100

**17) SQL statement to find the purchase amount ordered by the each customer with their ID and purchase amount.**

SQL> select customer\_id, max(amount) from payment\_details group by customer\_id;

CUSTOMER\_ID MAX(AMOUNT)

----------- -----------

201905 200

201910 100

201902 200

201915 1800

201920 400

201907 300

201911 400

201916 2500

201917 700

201919 400

201908 400

CUSTOMER\_ID MAX(AMOUNT)

----------- -----------

201901 900

201906 500

201903 2000

201909 4000

201912 800

201913 2100

201914 1100

201918 500

201904 1800

**18)statement to find the highest payment amount on a date '2012-08-17' for each salesman with their ID.**

SQL> select customer\_id, max(amount) From payment\_details where date\_of\_payment = '27-jun-19' Group by customer\_id;

CUSTOMER\_ID MAX(AMOUNT)

----------- -----------

201910 100

201902 200

201911 400

201916 2500

201908 400

201903 2000

201912 800

201918 500

**19) getting max amount for each customer with their amount and customer id above the given certain amount.**

SQL> select customer\_id,date\_of\_payment, max(amount) from payment\_details GROUP BY customer\_id,date\_of\_payment having max(amount)>1500;

CUSTOMER\_ID DATE\_OF\_P MAX(AMOUNT)

----------- --------- -----------

201904 25-JUN-19 1800

201909 26-JUN-19 4000

201916 27-JUN-19 2500

201903 27-JUN-19 2000

201913 26-JUN-19 2100

201915 26-JUN-19 1800

20)getting the customer id and amount paid by the customer within the range and the amount paid by them above 500.

SQL> select customer\_id, max(amount) from payment\_details where customer\_id between 201905 and 201915 group by customer\_id having max(amount)>500;

CUSTOMER\_ID MAX(AMOUNT)

----------- -----------

201915 1800

201909 4000

201912 800

201913 2100

201914 1100

**21)Write a SQL statement that counts all orders for a date which is given by us.**

SQL> select count(\*) from payment\_details where date\_of\_payment='25-jun-19';

COUNT(\*)

----------

4

**22)Write a query that counts the number of customer with their order date and ID registering orders for each day.**

SQL> select date\_of\_payment,customer\_id,count(\*) from payment\_details group by date\_of\_payment,customer\_id;

DATE\_OF\_P CUSTOMER\_ID COUNT(\*)

--------- ----------- ----------

26-JUN-19 201906 1

26-JUN-19 201920 1

27-JUN-19 201903 1

26-JUN-19 201907 1

27-JUN-19 201910 1

25-JUN-19 201919 1

25-JUN-19 201914 1

26-JUN-19 201901 1

27-JUN-19 201902 1

26-JUN-19 201905 1

27-JUN-19 201916 1

DATE\_OF\_P CUSTOMER\_ID COUNT(\*)

--------- ----------- ----------

25-JUN-19 201917 1

26-JUN-19 201909 1

27-JUN-19 201911 1

27-JUN-19 201912 1

27-JUN-19 201908 1

26-JUN-19 201915 1

25-JUN-19 201904 1

26-JUN-19 201913 1

27-JUN-19 201918 1

**23)get the names of the customer where no of booking days is maximum**

SQL> select lname,fname from customer\_details where customer\_id in (select customer\_id from booking\_table where booking\_days in (select max(booking\_days) from booking\_table));

LNAME FNAME

---------- ----------

kumar akhil

**24)get the details of customer with respect to the check in dates by orderly way**

SQL> select \* from customer\_details join room\_table on customer\_details.customer\_id=room\_table.customer\_id order by check\_in;

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

---------- ----- ----- ---------- --------- --------- ----------- -----

201911 saradhi yellapu 9441891139 29-NOV-79 30 87982

M 306 AC 3 01-JUL-19 02-AUG-19 201911 H3

201903 sai krishna 8945875215 15-JUL-98 52 15838

M 110 NAC 2 20-JUL-19 09-AUG-19 201903 H1

201904 vijay krishna 5895872546 19-DEC-00 19 12588

M 201 AC 2 20-JUL-19 07-AUG-19 201904 H2

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

----------- ---------- ---------- ---------- --------- ---------- ----------

GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

---------- ----- ----- ---------- --------- --------- ----------- -----

201909 akhil kumar 9441391141 29-MAR-89 40 45852

M 206 AC 4 21-JUL-19 30-AUG-19 201909 H2

201916 laxhmi subbha 8978155523 01-MAY-98 45 85446

f 401 AC 2 25-JUL-19 21-AUG-19 201916 H4

201920 apriprila neeharika 8976545956 23-JUN-65 56 85328

f 405 NAC 3 27-JUL-19 31-JUL-19 201920 H4

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

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201901 amman naidu 7036652677 10-DEC-97 23 25588

M 101 AC 2 28-JUL-19 05-AUG-19 201901 H1

201902 hemanth karanam 7207105192 08-SEP-96 22 25738

M 102 AC 2 28-JUL-19 29-JUL-19 201902 H1

201917 meher anusha 8976545523 14-MAR-91 47 85445

f 402 AC 2 29-JUL-19 05-AUG-19 201917 H4

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

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201905 sahithi paul 7858964525 25-DEC-92 28 25987

f 202 AC 1 29-JUL-19 30-JUL-19 201905 H2

201908 balaji appari 8019660694 29-JUL-92 29 45827

M 205 AC 2 30-JUL-19 02-AUG-19 201908 H2

201906 chandra babu 7858948925 25-JAN-92 28 45987

M 203 NAC 2 30-JUL-19 04-AUG-19 201906 H2

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

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201915 ram bhanu 8978155567 16-APR-89 45 87996

f 310 AC 2 31-JUL-19 18-AUG-19 201915 H3

201914 ramesh shasu 8978155317 15-APR-54 51 87998

f 309 AC 2 31-JUL-19 10-AUG-19 201914 H3

201907 akhil reddy 9858974826 25-MAR-92 28 49387

M 204 AC 4 31-JUL-19 02-AUG-19 201907 H2

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

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201912 yamsi krishna 8978264515 29-NOV-80 39 87988

M 307 AC 2 31-JUL-19 08-AUG-19 201912 H3

201913 sudheer killi 8978155318 19-FEB-58 58 87987

M 308 AC 2 31-JUL-19 20-AUG-19 201913 H3

201910 sun samson 9441391139 29-MAR-79 30 45982

M 207 AC 3 01-AUG-19 02-AUG-19 201910 H2

CUSTOMER\_ID FNAME LNAME PHONE\_NO DOB AGE PROOF\_ID

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GENDER ROOM\_ ROOM\_ NO\_BEDS CHECK\_IN CHECK\_OUT CUSTOMER\_ID HOTEL

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201919 akmak akshtha 9866053192 19-JUN-69 38 82586

f 404 NAC 2 01-AUG-19 04-AUG-19 201919 H4

201918 aammu prai 9866053124 11-JUL-24 54 25369

f 403 AC 2 02-AUG-19 06-AUG-19 201918 H4

**25)get the hotel address where no of booking days is max;**

SQL> select address from hotel\_table where hotel\_id in(select hotel\_ID from room\_table where customer\_ID in (select customer\_ID from booking\_table where booking\_days in (select max(booking\_days) from booking\_table)));

ADDRESS

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hyderabad

**26)get the names of customer names who are cash payers and female.**

SQL> select gender,lname,fname from customer\_details join payment\_details on customer\_details.customer\_id=payment\_details.customer\_id where gender='f' and payment\_type='cash';

GENDER LNAME FNAME

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f bhanu ram

f prai aammu

**27)get the empty rooms in hyderabad hotel with room name and room type;**

SQL> select hotel\_name,room\_type,room\_id,no\_beds from room\_table join hotel\_table on room\_table.hotel\_id=hotel\_table.hotel\_id where customer\_id is null and address='hyderabad';

HOTEL\_NAME ROOM\_ ROOM\_ NO\_BEDS

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hotel2 NAC 208 5

hotel2 AC 209 5

hotel2 AC 210 2

hotel3 AC 301 2

hotel3 AC 302 3

hotel3 AC 303 3

hotel3 NAC 304 4

hotel3 NAC 305 2

8 rows selected.

**28)select the total amount received by the total hotels on a particular date**

SQL> select sum(amount) from payment\_details where date\_of\_payment='26-jun-2019';

SUM(AMOUNT)

-----------

10200

**29)get the amont recevied by any brach at the particular date.**

SQL> select sum(amount) from payment\_details where customer\_id in (select customer\_id from room\_table where hotel\_id in (select hotel\_id1 from hotel\_table where address='bangalore'and date\_of\_payment='26-jun-2019'));

SUM(AMOUNT)

-----------

400

**30)get the rooms which are free after a particular date**

select room\_id from room\_table where check\_out >'30-aug-2019' or customer\_id is null;

ROOM\_

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103

104

105

106

107

108

109

208

209

210

301

ROOM\_

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302

303

304

305

406

407

408

409

410

# CHALLENGES FACED

We faced most of the challenges in creating relationships among tables. We need to make sure that all the relationships created among tables are logical.

The most challenging part was creating the booking and the rooms table and its relationships with other respective tables.

# CONCLUSION

This was an attempt to create a database management system for hotel where a DBA can easily manage the hotels, rooms, bookings, guests, employees, departments, services, etc. and other things as well, easily and quickly. Overall, it is huge area and we tried to cover few of the parts of it. Thank you!