

Section: BD 14872 Course Number: 202301\_CCCS215 Group: (2)

Table Reservation App

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When people hear about a new restaurant with an excellent reviews the restaurant will get crowded and sometimes people come from a far away distance and when they arrive they don’t find a table so they might have to wait several hours or leave. Here our application does its job. Our application will allow you to reserve a table in any restaurant directly from the application at specific time, so when you arrive you will have to give them the table number from the application.

Initial list of entities: 1-Customer

2-Restaurants 3-Reservations

Distribution of duties for the project:

* **Design the database following an ER model.**
* The ER should contain all necessary information such as entities, attributes, relationships, cardinalities etc.
* Convert your ER diagram to a relational schema.
* Underline all key attributes in your relations.

**will be covered by Abdulrahman Al-shaabi.**

* **Normalize the tables**
* Specify all functional dependencies for each relation. (Mapping)
* Design and implement at least 4 queries

**will be covered by Samer Najmuldeen.**

* **Use Oracle to create the normalized tables.**
* Populate your tables with 5 rows at least.

**will be covered by Abdullah Turki**

* **Design two stored procedures as the following**

-Create a PARAMETER based SELECT QUERY stored procedure which return records

-based on parameters

-Create an UPDATE query based stored procedure

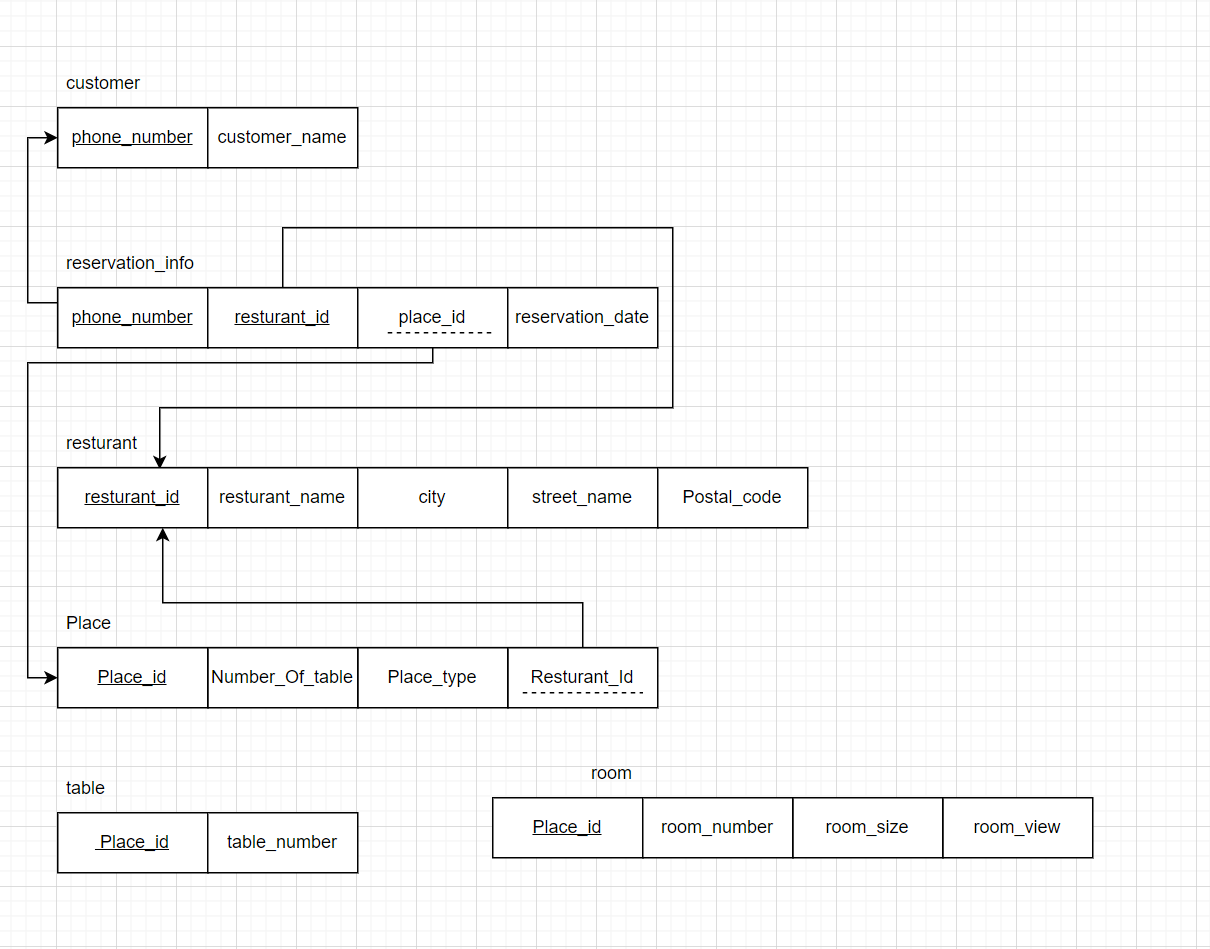
Will be covered by Abdullah Alssaggaf

* **EER model**

Diagram

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- relational schema



-This relation is already in 3NF because it already fulfilled all the conditions from 1-3NF.

1- there are no repeating groups.

2- a unique key has been identified for each relation.

3- all attributes are functionally dependent on all or part of the key.

4-all non-key attributes are fully functionally dependent on the

entire key.

5-no transitive dependencies.

create table restaurant (

restaurant\_id number not null constraint restaurant\_pk primary key,

place\_id number not null,

restaurant\_name varchar2(40) not null,

address varchar2(20)

);

alter table restaurant add constraint restaurant\_restaurant\_id\_uq unique (restaurant\_id);

alter table restaurant add constraint restaurant\_place\_id\_uq unique (place\_id);

create table reservation\_info (

phone\_number number not null ,

restaurant\_id varchar2(10) not null,

reservation\_date date not null,

place\_id number

);

alter table reservation\_info

add constraint FK\_phone

FOREIGN KEY (phone\_number) REFERENCES customer(phone\_number);

alter table reservation\_info

add constraint FK\_restaurant\_id

FOREIGN KEY (RESTAURANT\_PK) REFERENCES restaurant(RESTAURANT\_PK);

create table Place (

place\_id number not null constraint place\_pk primary key,

number\_of\_tables number not null

);

alter table Place add constraint place\_place\_id\_uq unique (place\_id);

create table customer (

phone\_number number not null constraint customer\_pk primary key,

customer\_name varchar2(20) not null

);

create table room (

room\_number number not null,

room\_size number not null,

room\_view varchar2(15) not null,

place\_id number not null,

constraint fk\_placeid FOREIGN KEY (place\_id) REFERENCES place(place\_id)

);

create table table\_t (

table\_number number not null,

place\_id number not null,

constraint t\_placeid FOREIGN KEY (place\_id) REFERENCES place(place\_id)

);

insert into restaurant

values (25136,11356,'Shawerma Resturant','Jeddah,alsalamah,47733')

insert into restaurant

values (11562,84532,'Burger Resturant','Jeddah,al rawdah,125400')

insert into restaurant

values (76246,11424,'Kabsah Resturant','Jeddah,Alnaeem,240955')

insert into restaurant

values (15326,32136,'Pizza Resturant','Jeddah,Asfan,213465')

insert into restaurant

values (29424,32168,'Seafood Resturant','Jeddah,Almuhammdyiah,215799')



insert into place

values(11356,10)

insert into place

values(84532,7)

insert into place

values(32168,9)

insert into place

values(11424,8)

insert into place

values(32136,11)

Table

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insert into room

values (1,'7x7','Garden view',11356)

insert into room

values (2,'8x8','Fountain view',11356)

insert into room

values (1,'5x5','Kitchen view',84532)

insert into room

values (2,'5x5','Standard view',84532)

insert into room

values (1,'6x6','Street view',11424)

insert into room

values (2,'6x6','Street view',11424)

insert into room

values (1,'7x7','Kitchen view',32136)

insert into room

values (2,'4x4','Fountain view',32136)

insert into room

values (1,'7x7','Aquarium view',32168)

insert into room

values (2,'9x9','Beach view',32168)

Table

Description automatically generated

insert into table\_t

values (1,11356);

insert into table\_t

values (2,11356);

insert into table\_t

values (3,11356);

insert into table\_t

values (4,11356);

insert into table\_t

values (5,11356);

insert into table\_t

values (6,11356);

insert into table\_t

values (7,11356);

insert into table\_t

values (8,11356);

insert into table\_t

values (9,11356);

insert into table\_t

values (10,11356)

insert into table\_t

values (1,84532);

insert into table\_t

values (2,84532);

insert into table\_t

values (3,84532);

insert into table\_t

values (4,84532);

insert into table\_t

values (5,84532);

insert into table\_t

values (6,84532);

insert into table\_t

values (7,84532);

insert into table\_t

values (1,32168);

insert into table\_t

values (2,32168);

insert into table\_t

values (3,32168);

insert into table\_t

values (4,32168);

insert into table\_t

values (5,32168);

insert into table\_t

values (6,32168);

insert into table\_t

values (7,32168);

insert into table\_t

values (8,32168);

insert into table\_t

values (9,32168);

insert into table\_t

values (1,11424);

insert into table\_t

values (2,11424);

insert into table\_t

values (3,11424);

insert into table\_t

values (4,11424);

insert into table\_t

values (5,11424);

insert into table\_t

values (6,11424);

insert into table\_t

values (7,11424);

insert into table\_t

values (8,11424);

insert into table\_t

values (1,32136);

insert into table\_t

values (2,32136);

insert into table\_t

values (3,32136);

insert into table\_t

values (4,32136);

insert into table\_t

values (5,32136);

insert into table\_t

values (6,32136);

insert into table\_t

values (7,32136);

insert into table\_t

values (8,32136);

insert into table\_t

values (9,32136);

insert into table\_t

values (10,32136);

insert into table\_t

values (11,32136);

A picture containing graphical user interface

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insert into CUSTOMER

values(0594678400,'Abdullah')

insert into CUSTOMER

values(0547583499,'Ahmed')

insert into CUSTOMER

values(0573261122,'Samer')

insert into CUSTOMER

values(0565447721,'Mohammed')

insert into CUSTOMER

values(0595126666,'Ali')

insert into CUSTOMER

values(0552466771,'Abdulrahman')

Table

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insert into reservation\_info

values(594678400,25136,'2022-11-12',11356)

insert into reservation\_info

values(547583499,11562,'2022-11-16',84532)

insert into reservation\_info

values(573261122,76246,'2022-11-18',11424)

insert into reservation\_info

values(595126666,15326,'2022-11-18',32136)

insert into reservation\_info

values(565447721,29424,'2022-11-18',32168)

Table

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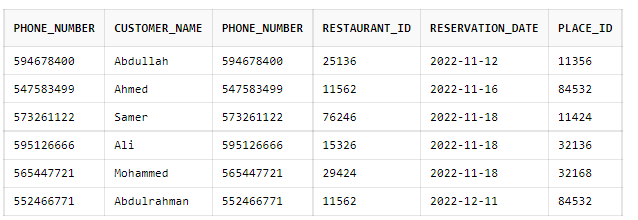
//query 4

select \*

from customer

join reservation\_info

on customer.PHONE\_NUMBER = reservation\_info.PHONE\_NUMBER



//query1

select customer.customer\_name , reservation\_info.PHONE\_NUMBER,reservation\_info.RESTAURANT\_ID,reservation\_info.RESERVATION\_DATE

from customer , reservation\_info

where reservation\_info.RESERVATION\_DATE='2022-11-18'

And reservation\_info.phone\_number= customer.phone\_number;

Table

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//query 2

select count (table\_number) , place\_id

from table\_t

group by place\_ID

order by count (table\_number) desc;Table

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//query 3

select customer\_name , phone\_number

from customer

where phone\_number in

(select phone\_number from reservation\_info where reservation\_date='2022-11-18');

Table

Description automatically generated