King Saud University
Collage of Business Administration
Management Information Systems Department
Introduction to Databases MIS 214

Jahez

Phase # 1

Section #	SN	NAME	ID
View Name: *write the first view name*			
39806	*1*	*Reem Ahmed Albejadi*	
39806	*8*	*Nada Mohammed Alshenaiber*	
39806	*37*	*Nouf Alsubaie*	
View Name: *write the second view name*			
39806	*2*	*Alhanouf Abdulaziz Alnafia*	
39806	*18*	*Sara Alfawaz*	
39806	*29*	*Alnoud Aldawsari*	
39806	*30*	*Atheer Alhamidi*	

Project Description:

Jahez is a Saudi online restaurant ordering and delivery platform. that delivers food to customer with:

- high quality:

  customers can browse and conveniently place their order through more than 20 kind of kitchens, hundreds of restaurant menus.Besides, it contains bakeries, pharmacies, supermarkets, and other stores. Not only this. but also the restaurants are filtered by whether the nearest to the customer location or the recently joined Jahez. Also each restaurant contains the most recent menu with all the needed details like the prices, calories, number of pieces, and some pictures.

- fast delivery:

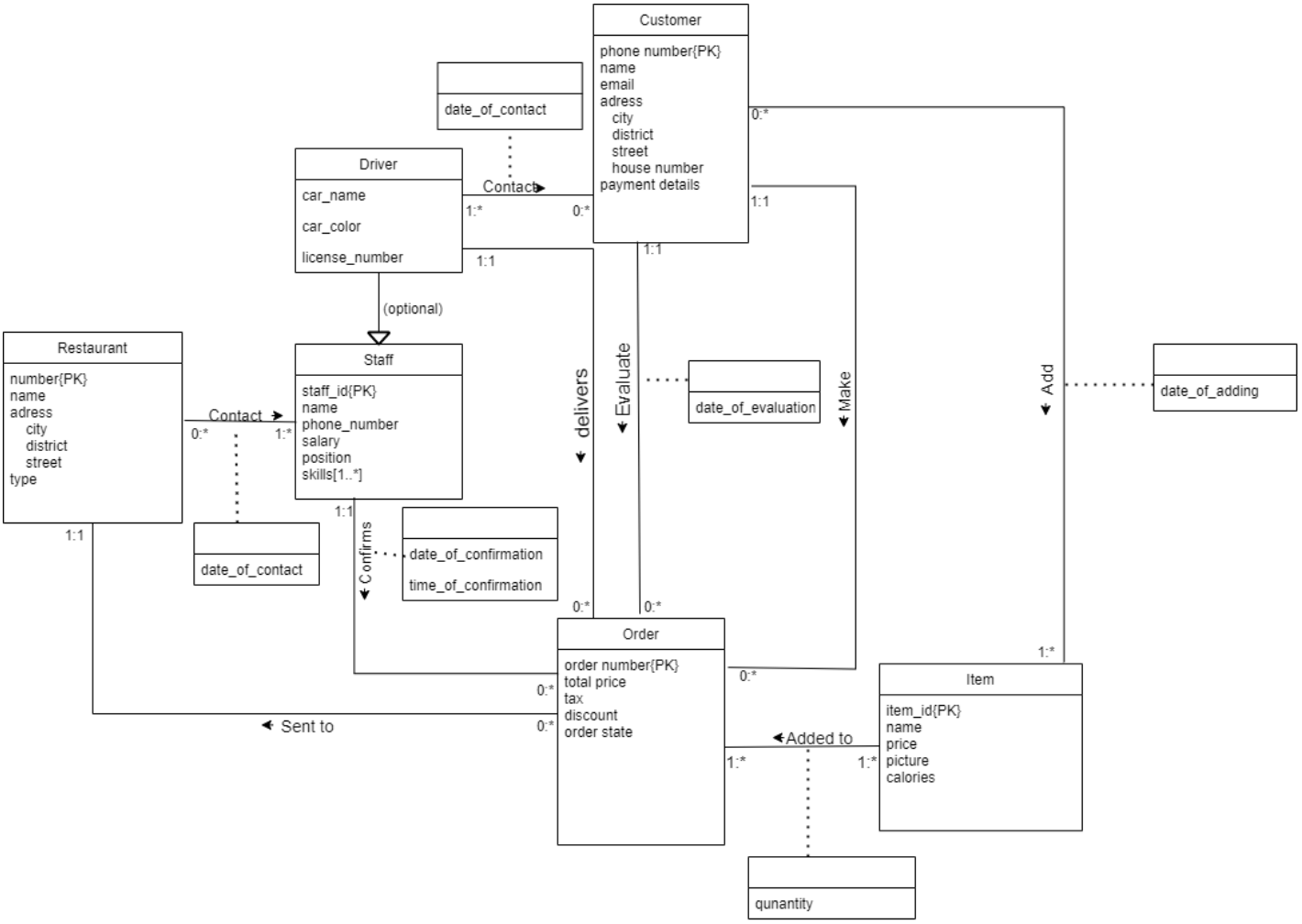
  once the restaurant accepts an order. Jahez will manage the rest of the process hurriedly, starting from assign to the nearest driver to pick up the order, until deliver it to the customer. The customer can easily track the whole process. From their order placement to the delivery location.

- different payment options:

  Jahez is considering all the different kind of payment like: cash, visa, apple pay.

In addition to this, Jahez is continuous service developments, variety in restaurants and in any time the customer want even if the restaurant is far. Furthermore, Jahez provides opportunities for anyone to work on it for delivering food even if they have a job, because working time on Jahez are flexible so they can deliver food at any time they want.

Enhanced entity relationship diagram Global (EER): Alanoud



Customer (phone number, name, email, city, district, street, house number, payment details) Primary Key phone Number Add (phone number, item_id,date_of_adding) Primary Key phone number, item_id,date_of_adding Foreign Key phone number reference Customer (phone number) Foreign Key item_id reference Item (item_id) Item (item_id, name, price, picture, calories) Primary Key item_id AddedTo (quantity, Item_id, order number) Primary Key item_id, order number Foreign Key item_id reference Item (item_id) Foreign Key order number reference Order (order number) Order (order number, total Price, tax, discount, order state, customer phone, staff_id, driver_id, date of evaluation, date of confirmation, time of confirmation, restaurant number) Primary Key order number Foreign Key customer number reference Customer (phone number) Foreign Key staff_id reference Staff (staff_id) Foreign Key driver_id reference Driver (staff_id) Foreign Key restaurant number references Restaurant (number)	Restaurant (number, name, city, district, street, type) Primary Key number Connection (restaurant number, staff_id, date of contact) Primary Key staff_id, restaurant number, date of contact Foreign Key restaurant number reference Restaurant (number) Foreign Key staff_id reference Staff (staff_id) Staff (staff_id, name, phone_number, salary ,position) Primary Key staff_id Skill (skills, staff_id) Primary Key skills, staff_id Foreign Key staff_id reference Staff (staff_id) Driver (driver_id,car_name ,car_color, licence_ number) Primary key driver_id Contact (phone Number, driver_id, date of contact) Primary Key phone number, driver_id, date of contact Foreign Key phone number reference Customer (phone number) Foreign Key driver_id reference Driver(staff_id)

DB tables creation commands: Participated with other girls

```
CREATE TABLE Customer(phone_number char(10) Primary Key,
                name varchar(30) not null,
                email varchar(30) UNIQUE,
                city varchar(15) not null,
                district varchar(20) not null,
                street varchar(20) not null,
                house_number varchar(10),
                payment_details varchar(30));
CREATE TABLE Item(item_id char(5) Primary key,
               name varchar(20) not null,
               price smallint not null,
               calories varchar(4));
CREATE TABLE Adda(phone_number char(10) NOT NULL UNIQUE,
              item_id char(5) not null UNIQUE ,
              date_of_adding Date primary key,
              CONSTRAINT Adda_FK1 Foreign key (phone_number) references
              Customer (phone_number),
              CONSTRAINT Adda_FK2 Foreign key (item_id) references item
              (item_id));
CREATE TABLE staff (
staff_id char (5) primary key,
name varchar (20)not null,
phone_number char (10) not null,
salary smallint,
position varchar (20));
CREATE TABLE Restaurant(
  restaurant_number CHAR(4),
  name VARCHAR(20) NOT NULL,
  city VARCHAR(15),
  district VARCHAR(15),
  street VARCHAR(30),
  type VARCHAR(20),
  CONSTRAINT restaurant_pk PRIMARY KEY(restaurant_number));
CREATE TABLE Ordera(orderNumber char(8) Primary key,
               total_price numeric(6,2) not null,
               tax varchar(5) not null,
               discount varchar(4),
               customerPhone char(10),
               staff_id char(5),
               driver_id char(5),
               date_of_evaluation Date,
               date_of_confirmation Date not null,
               time_of_confirmation Date not null,
               restaurant_number char(4),
               CONSTRAINT ordera_FK1 FOREIGN KEY(customerPhone) references
               Customer (phone_number),
               CONSTRAINT ordera_FK2 FOREIGN KEY(staff_id) references Staff (staff_id),
```

```
        CONSTRAINT ordera_FK3 FOREIGN KEY(restaurant_number) references Restaurant
(restaurant_number));

CREATE TABLE AddedTo(quantity smallint ,
Item_id char(5) NOT NULL UNIQUE,
orderNumber char(8) Primary key,
CONSTRAINT AddedTo_FK1 Foreign key(Item_id) references Item(item_id),
CONSTRAINT AddedTo_FK2 Foreign key(orderNumber) references Ordera(orderNumber));

CREATE TABLE Connections(
 restaurant_number CHAR(4) NOT NULL UNIQUE,
 staff_id char(5) NOT NULL UNIQUE,
 date_of_contact DATE,
 CONSTRAINT connection_pk PRIMARY KEY(date_of_contact),
 CONSTRAINT connection_fk1 FOREIGN KEY(restaurant_number) REFERENCES
 Restaurant(restaurant_number),
 CONSTRAINT connection_fk2 FOREIGN KEY(staff_id) REFERENCES
 Staff(staff_id));

CREATE TABLE skills(skills varchar(50) primary key,
          staff_id char(5) NOT NULL UNIQUE,
          CONSTRAINT skills_FK foreign key(staff_id) References Staff(staff_id));

CREATE TABLE Driver
 (staff_id char (5) primary key,
  car_name varchar (15) not null,
  car_color varchar (9),
  licence_number char (7)not null);

CREATE TABLE Contact(phone_number char(10) NOT NULL UNIQUE,
            driver_id char(5) NOT NULL UNIQUE,
            date_of_contact Date primary key,
            CONSTRAINT conact_FK1 foreign key(phone_number)
            references Customer(phone_number),
            CONSTRAINT contact_FK2 foreign key(driver_id)
            references Driver(staff_id));
```

Data insertion commands: Alanoud

INSERT INTO Customer VALUES('0532298861' , 'anoud' , 'anouday77@gmail.com' , 'riyadh' , 'alraffiah','anas' , 12 , 'credit card');
INSERT INTO Customer VALUES('0500133818', 'nouf','nouf5@gmail.com','riyadh','AL-Malqa','nawaf bin fahad',8,'master card');
INSERT INTO Customer VALUES('0500144717','nourah','nourah5@gmail.com','riyadh','Hitten','fahad bin nawaf',9,'apple pay');
INSERT INTO Customer VALUES('0500717889','shahad','shahad77@gmail.com','riyadh','AL-yasmeen','abduallah bin naif',5,'credit card');
INSERT INTO Customer VALUES('0549198872','saud','saud9@gmail.com','riyadh','AL-khuzamma','salman',3,'master card');

phone_number	name	email	city	district	street	house_number	payment_details
0500133818	nouf	nouf5@gmail.com	riyadh	AL-Malqa	nawaf bin fahad	8	master card
0500144717	nourah	nourah5@gmail.com	riyadh	Hitten	fahad bin nawaf	9	apple pay
0500717889	shahad	shahad77@gmail.com	riyadh	AL-yasmeen	abduallah bin naif	5	credit card
0532298861	anoud	anouday77@gmail.com	riyadh	alraffiah	anas	12	credit card
0549198872	saud	saud9@gmail.com	riyadh	AL-khuzamma	salman	3	master card

INSERT INTO Item VALUES('73829','big tasty',24,'2300');
INSERT INTO Item VALUES('37280','strip fries',15,'450');
INSERT INTO Item VALUES('23476','fried chicken burger',22,'2500');
INSERT INTO Item VALUES('52673','ckhicken mcnuggets',27,'2200');
INSERT INTO Item VALUES('87639','double chesse burger',19,'1750');

item_id	name	price	calories
23476	fried chicken burger	22	2500
37280	strip fries	15	450
52673	ckhicken mcnuggets	27	2200
73829	big tasty	24	2300
87639	double chesse burger	19	1750

```
INSERT INTO Adda VALUES('0532298861','73829','01-dec-2020');
INSERT INTO Adda VALUES('0500133818','37280','02-dec-2020');
INSERT INTO Adda VALUES('0500144717','23476','29-oct-2020');
INSERT INTO Adda VALUES('0500717889','52673','29-nov-2020');
INSERT INTO Adda VALUES('0549198872','87639','03-dec-2020');
```

phone_number	item_id	date_of_adding
0500144717	23476	2020-10-29
0500717889	52673	2020-11-29
0532298861	73829	2020-12-01
0500133818	37280	2020-12-02
0549198872	87639	2020-12-03

```
INSERT INTO staff VALUES('12345', 'Mohammed', '0553434567',15000,'customer servies' );
INSERT INTO staff VALUES('98765', 'Khalid', '0555311234',10000,'customer servies');
INSERT INTO staff VALUES('22345', 'Ahmad', '0503452123',8000,'customer servies');
INSERT INTO staff VALUES('11223', 'Nasser', '0506843123',8000,'customer servies');
INSERT INTO staff VALUES('22133', 'Ali', '0504322123',7000,'customer servies');
```

staff_id	name	phone_number	salary	position
11223	Nasser	0506843123	8000	customer servies
12345	Mohammed	0553434567	15000	customer servies
22133	Ali	0504322123	7000	customer servies
22345	Ahmad	0503452123	8000	customer servies
98765	Khalid	0555311234	10000	customer servies

INSERT INTO Restaurant VALUES('1231', 'mcdonalds', 'riyadh', 'ar rabwah', 'omar bin abdulaziz rd', 'american');
INSERT INTO Restaurant VALUES('1232', 'yummy wok', 'riyadh', 'ar rabi', 'abi bakr assiddiq rd', 'chinese');
INSERT INTO Restaurant VALUES('1233', 'pastalita', 'riyadh', 'ar rabwah', 'prince matab ibn abdul aziz', 'italian');
INSERT INTO Restaurant VALUES('1234', 'herfy', 'riyadh', 'al nuzha', 'othman ibn affan street', 'fast food');
INSERT INTO Restaurant VALUES('1235', 'fire grill', 'riyadh', 'al ruwais', 'king abdullah road', 'mexican');

restaurant_number	name	city	district	street	type
1231	mcdonalds	riyadh	ar rabwah	omar bin abdulaziz rd	american
1232	yummy wok	riyadh	ar rabi	abi bakr assiddiq rd	chinese
1233	pastalita	riyadh	ar rabwah	prince matab ibn abdul aziz	italian
1234	herfy	riyadh	al nuzha	othman ibn affan street	fast food
1235	fire grill	riyadh	al ruwais	king abdullah road	mexican

INSERT INTO Ordera VALUES('87273827',34,15,'15%','0532298861','22345','13312','01-dec-2020','01-dec-2020','12:30:59','1231');
INSERT INTO Ordera VALUES('87539867',25,18,'20%','0500133818','22345','11167','02-dec-2020','02-dec-2020','13:25:33','1232');
INSERT INTO Ordera VALUES('86386546',32,20,'17%','0500144717','22133','66712','29-oct-2020','29-oct-2020','14:50:25','1233');
INSERT INTO Ordera VALUES('82738927',37,10,'7%','0500717889','22133','80963','29-nov-2020','29-nov-2020','15:50:01','1234');
INSERT INTO Ordera VALUES('71827678',29,8,'5%','0549198872','22133','91067','03-dec-2020','03-dec-2020','12:30:22','1235');

orderNumber	total_price	tax	discount	customerPhone	staff_id	driver_id	date_of_evaluation	date_of_confirmation	time_of_confirmation	restaurant_number
71827678	29	8	5%	0549198872	22133	91067	2020-12-03	2020-12-03	1900-01-01	1235
82738927	37	10	7%	0500717889	22133	80963	2020-11-29	2020-11-29	1900-01-01	1234
86386546	32	20	17%	0500144717	22133	66712	2020-10-29	2020-10-29	1900-01-01	1233
87273827	34	15	15%	0532298861	22345	13312	2020-12-01	2020-12-01	1900-01-01	1231
87539867	25	18	20%	0500133818	22345	11167	2020-12-02	2020-12-02	1900-01-01	1232

```
INSERT INTO AddedTo VALUES(3,'73829','87273827');
INSERT INTO AddedTo VALUES(2,'37280','87539867');
INSERT INTO AddedTo VALUES(3,'23476','86386546');
INSERT INTO AddedTo VALUES(3,'52673','82738927');
INSERT INTO AddedTo values(3,'87639','71827678');
```

quantity	Item_id	orderNumber
3	87639	71827678
3	52673	82738927
3	23476	86386546
3	73829	87273827
2	37280	87539867

```
INSERT INTO Connections VALUES('1231', '12345', '01-dec-2020');
INSERT INTO Connections VALUES('1232',  '98765', '02-dec-2020');
INSERT INTO Connections VALUES('1233', '22345', '29-oct-2020');
INSERT INTO Connections VALUES('1234', '11223', '29-nov-2020');
INSERT INTO Connections VALUES('1235', '22133', '03-dec-2020');
```

restaurant_number	staff_id	date_of_contact
1233	22345	2020-10-29
1234	11223	2020-11-29
1231	12345	2020-12-01
1232	98765	2020-12-02
1235	22133	2020-12-03

```
INSERT INTO Skills VALUES('team work','12345');
INSERT INTO Skills VALUES('problem solving','98765');
INSERT INTO Skills VALUES('technology','22345');
INSERT INTO Skills VALUES('self-mangement','11223');
INSERT INTO Skills VALUES('planning and organising','22133');
```

skills	staff_id
self-mangement	11223
team work	12345
planning and organising	22133
technology	22345
problem solving	98765

```
INSERT INTO driver VALUES('13312','Toyota','white','1243ABC');
INSERT INTO driver VALUES('11167','Volkswagen','black','9982BBT');
INSERT INTO driver VALUES('66712','Toyota','black','4980MYQ');
INSERT INTO driver VALUES('80963','Honda','blue','6513RQP');
INSERT INTO driver VALUES('91067','Mazda','grey','9257LNM');
```

staff_id	car_name	car_color	licence_number
11167	Volkswagen	black	9982BBT
13312	Toyota	white	1243ABC
66712	Toyota	black	4980MYQ
80963	Honda	blue	6513RQP
91067	Mazda	grey	9257LNM

```
INSERT INTO Contact VALUES('0532298861','13312','01-dec-2020');
INSERT INTO Contact VALUES('0500133818','11167','02-dec-2020');
INSERT INTO Contact VALUES('0500144717','66712','29-oct-2020');
INSERT INTO Contact VALUES('0500717889','80963','29-nov-2020');
INSERT INTO Contact VALUES('0549198872','91067','03-dec-2020');
```

phone_number	driver_id	date_of_contact
0500144717	66712	2020-10-29
0500717889	80963	2020-11-29
0532298861	13312	2020-12-01
0500133818	11167	2020-12-02
0549198872	91067	2020-12-03

Jahez

Customer view

Section #	SN	NAME	ID
39806	*1*	*Reem Ahmed Albejadi*	
39806	*8*	*Nada Mohammed Alshenaiber*	
39806	*37*	*Nouf Alsubaie*	

View Description:

Customer view

In customer view, customers can search for restaurants they want, see the menu, place order, see the total price, find information about the driver, view order details and check the restaurant's location.

Data Requirements:

Customer:

To order things such as food, customer have to register an account. When the customer registers an account, the data stored on customers includes customer name, telephone number, payment details, email and address (city, district, street and house number). The customer telephone number and email can't be duplicated (unique). Also, the customer can place only one order at a time. He can see details about his order and only one driver is going to deliver this specific order to him.

Restaurant:

The costumer can choose the restaurant that he want to order from and can see the restaurant name, address (city, district and street) so he can know how far is the restaurant, restaurant evaluation and the type of restaurant such as: Arabic, Italian and Chinese..etc. The restaurant name is unique. Also, the costumer can order only from one restaurant at a time.

Item:

After the customer choose the restaurant he wants, he has to choose the items that he wants to buy. Each item is defined by name, price, picture and number of calories. One customer can add many items.

Order:

After the costumer choose the restaurant, he adds the items to the order. The data that the costumer can see are order number, total price, tax, discounts, date and time. The order number can't be duplicated.

Driver:

There are drivers for delivering orders to costumer, so customers can contact the driver if they want to inquire about something. The customers can see the driver's name and telephone number. A driver can deliver many orders.

Transaction Requirements:

Data Entry:

-Enter the details for new customer.
-Enter a new order.

Data update/deletion:

-Update\delete the customer's mobile number.
-Update\delete the order.
-Update\delete the customer's address.

Data Queries:

1- List all the customer's mobile number registered in the application.
2- Find how many orders have total more than 200.
3- Identify the total of orders for September 2020.
4- List the order details for a given customer.
5- Identify the total number of delivery for a given driver.
6- Identify which restaurant has the highest sales in the current month.
7- List of all restaurants in a given category (for example, Arabic, Italian and Chinese..etc.).
8- Find how many items has price more than 100.
9- Identify the 10 least ordered restaurants.
10- List all the customer who only has one order.

Data Queries commands and outputs: Alanoud

1- List all the customer's mobile number registered in the application

```
SELECT phone_number
FROM Customer;
```

phone_number
0532298861
0500133818
0500144717
0549198872
0500717889

2- List of all restaurants in a given category (for example, Arabic, Italian and Chinese..etc.).

```
SELECT name
FROM Restaurant
WHERE type= 'mexican';
```

name
fire grill

✔ Record Count: 1; Execution Time

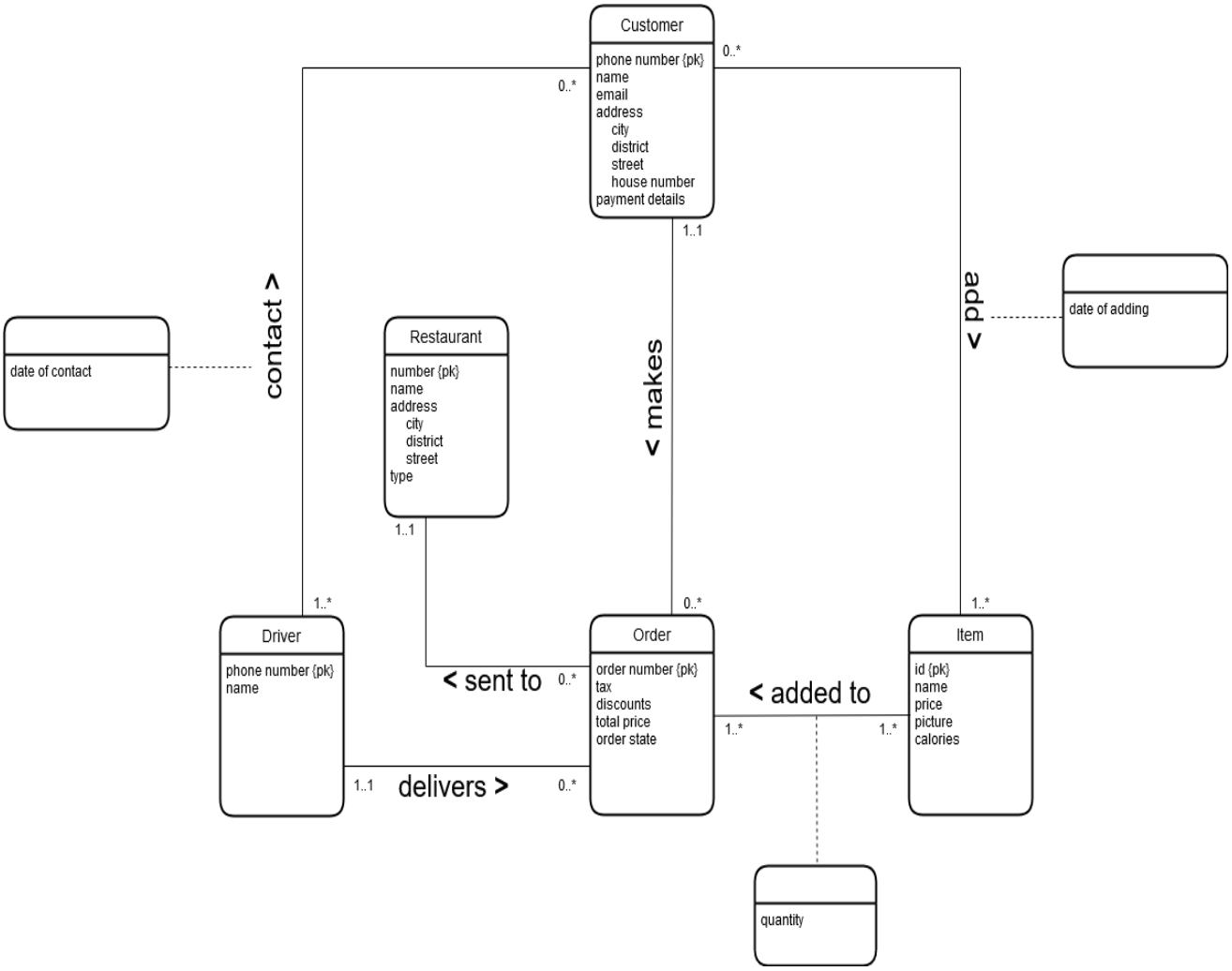
3- Find how many items has price more than 100.

```
Select count(*) As mycount
From item
Where price>100;
```

mycount
0

✔ Record Count: 1; Execution Time: 17ms ✚ View Execution Plan ➦ link

Enhanced entity relationship diagram (EER):



Jahez

Staff View

Section #	SN	NAME	ID
39806	2	*Alhanouf Abdulaziz Alnafia*	
39806	*18*	*Sara Alfawaz*	
39806	*29*	*Alnoud Aldawasri*	
39806	*30*	*Atheer Alhamidi*	

View Description:

Staff view

This view store staff all staff information, from taking an order from Costumer , how they send the order to the Restaurant , the staff inter to know about which Costumer want this Restaurant ,and information that belong to them.

Data Requirements: Alanoud

Staff:

the staff members of Jahez includes help and support section and the drivers, so the data requirement on the staff are, staff ID, name, phone number, salary, position, and skills.

Every staff can confirm one or many orders from the customers and then they will contact the restaurants immediately.

Restaurant:

There will be many restaurants available in the platform to order from so when the order confirmed they will be contacted by one or many staff so, the data requirements includes, restaurant number, name, address (city, district, street) type.

Customer:

Once the customer registered any entered data will be stored includes, the customer number, name, email, address (city, district, street, house number), payment details. Every customer can make and evaluate none or many orders. If the order arrives, the customer will be contacted by one or many drivers.

Order: Multiple orders can be made by the customer and get confirmed by the staff (date and time conformation) at the same time. And the data requirement on the order will be, order number, tax, discount, order state, total price, restaurant name, item name.

Driver: We also include Driver with staff the driver will be in charge of delivering the order to the customer, also he can deliver none or many orders.

so, the data requirements will be, car name, car color, license number. the customer will be informed that the driver has taken the order so the customer can track it and if the driver arrives, he will contact the customer immediately.

Transaction Requirements:

Data Entry:

-Enter order details
-Enter new staff

Data update/deletion:

-update data of restaurants information
-update order status
-delete unavailable restaurant

Data Queries:

1- List the total drivers that serves Riyadh city.
2- Identify which type of restaurants has most orders.
3- Identify how many orders has been transmitted in September 2020 for each driver.
4- List the orders that the staff has rejected.
5- List the driver that has rated under 5 stars from the customers.
6- Identify the most day that the staff received orders.
7- Identify which restaurant has less orders.
8- Identify the staff who has the most number of confirmation.
9- List the staff whose experience is more than 2years.
10- Identify the evaluation of restaurants in September 2020.

Data Queries commands and outputs: Alanoud and Nouf

1- List the customer's names and email with their order numbers

```
SELECT C.name, C.email,O.orderNumber
FROM customer C, ordera O
where C.phone_number = O.customerPhone;
```

name	email	orderNumber
saud	saud9@gmail.com	71827678
shahad	shahad77@gmail.com	82738927
nourah	nourah5@gmail.com	86386546
anoud	anouday77@gmail.com	87273827
nouf	nouf5@gmail.com	87539867

2-List the all the information staff who receive any evaluation in DEC

```
SELECT S.*
FROM Staff S, ordera O
where S.staff_id = O.staff_id
    AND  date_of_evaluation BETWEEN '01-dec-2020' AND '30-dec-2020';
```

staff_id	name	phone_number	salary	position
22133	Ali	0504322123	7000	customer servies
22345	Ahmad	0503452123	8000	customer servies
22345	Ahmad	0503452123	8000	customer servies

1- 3- List all the details for every driver who has order in October.

```
SELECT D.*, O.ordernumber
FROM driver D FULL JOIN ordera O
ON D.Staff_id = O.Driver_id
WHERE date_of_confirmation BETWEEN '01-OCT-2020' AND '30-OCT-2020';
```

staff_id	car_name	car_color	licence_number	ordernumber
66712	Toyota	black	4980MYQ	86386546

Enhanced entity relationship diagram (EER): Alanoud