



Kingdom of Saudi Arabia  
Ministry of Education  
King Faisal University  
College of Computer Sciences & Information Technology

## IS222: Database Concepts & Design

### Course Project Report

[ HFIA]



**HFIA**  
TOURIST GUIDE COMPANY

**Section**

[63]

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February, 2021

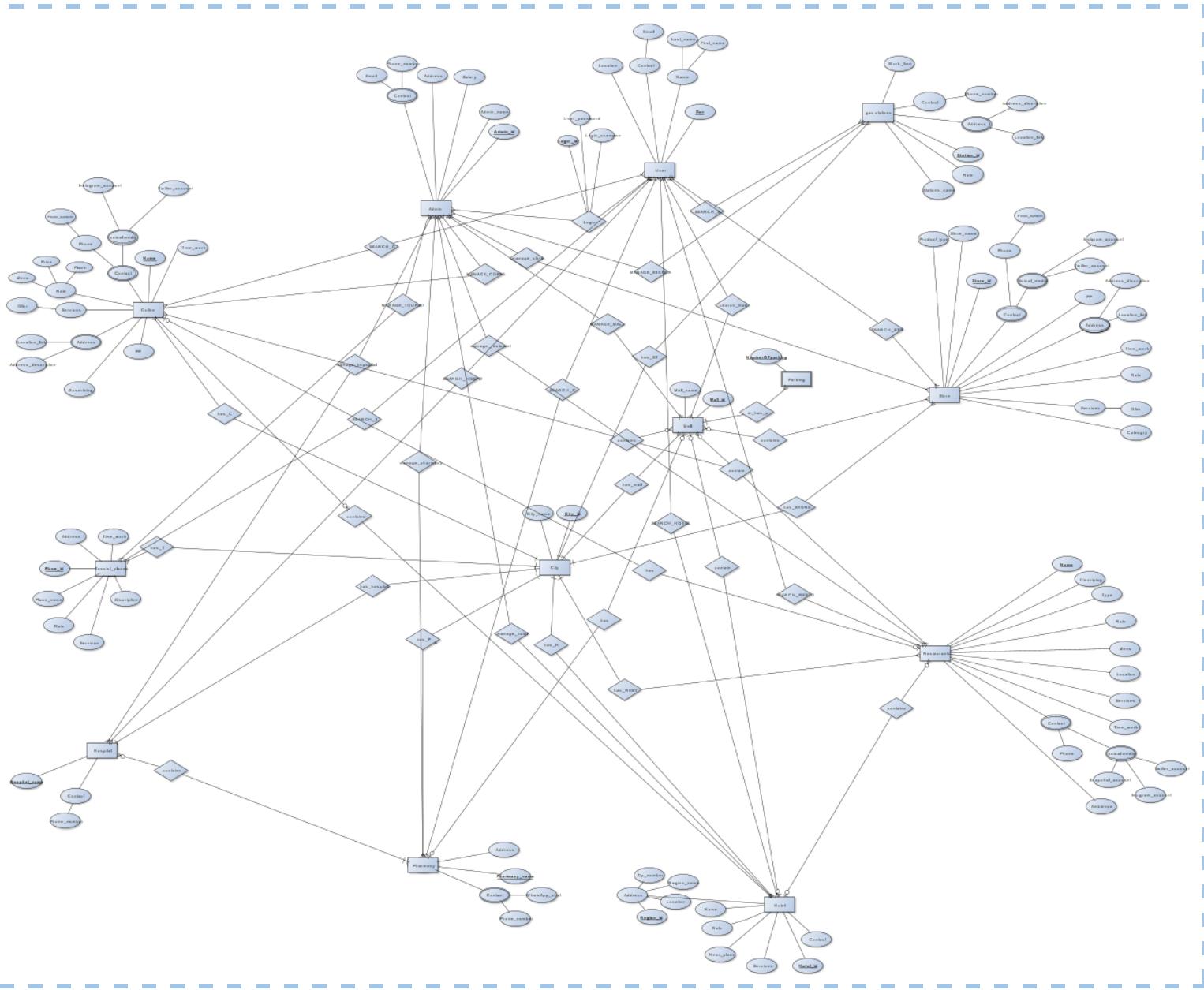
## **1. Introduction**

Most people find they enjoy traveling for this reason we understand to create a database for those who like and enjoy traveling to reduce their travel money to have a tour guide.

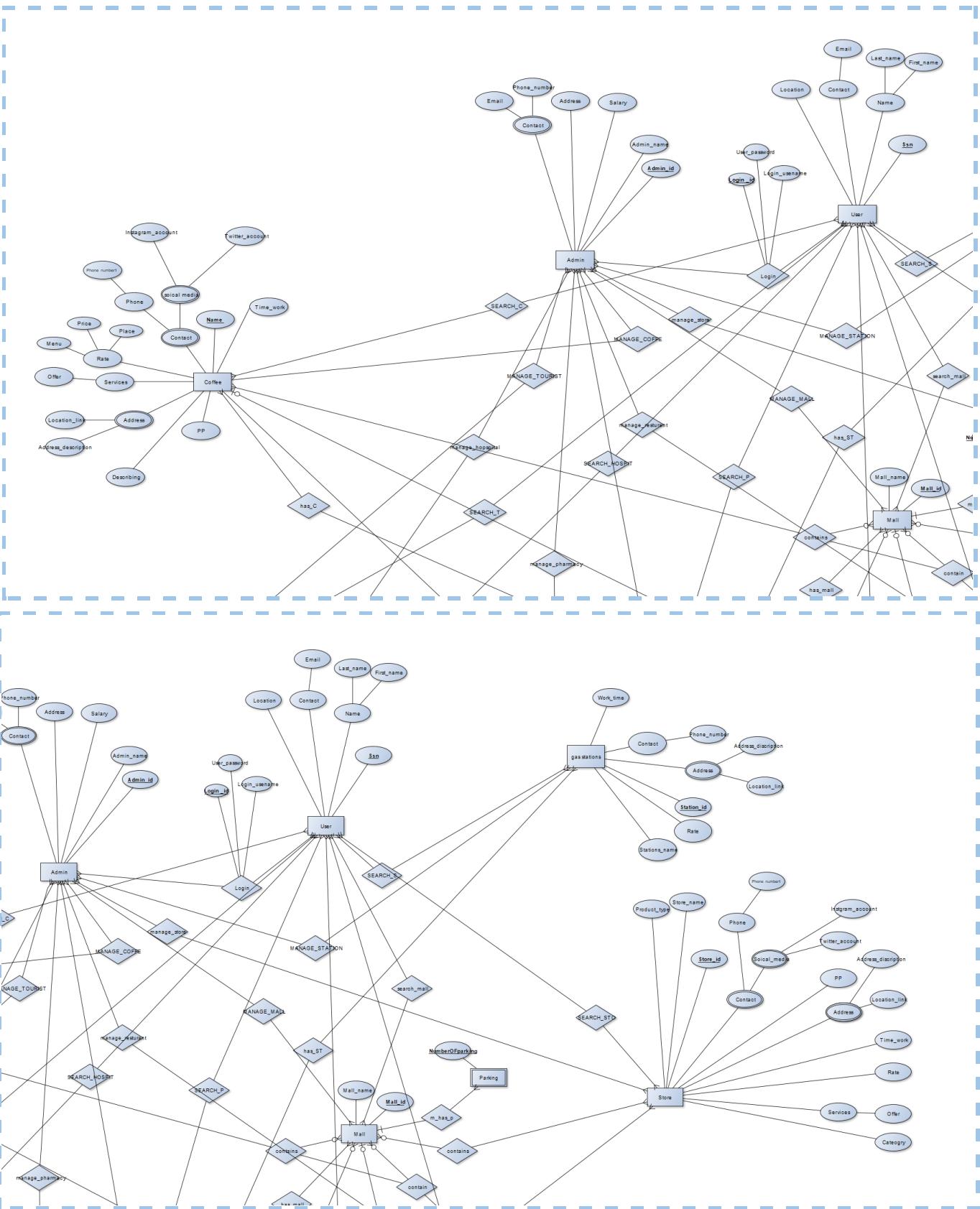
HFIA 'have fun in Alahsa' is a database for tourist guides which will have all of Al-Ahsa's places to guide the tourists instead of paying for a tour guide. In our database will find all what he/she needs so will save her/him money, also saving the time because he/she will find all what she/he needs in one place. Also it can see the rate of anyplace he/she wants to go to and this rate will be for place, price and menu. Each separately because maybe one person doesn't like the place but the menu and price is good and maybe someone doesn't like something and other like so it's fair if put these separately and will have separate attributes for each coffee, restaurant, tourist place, hotel ...etc. All that will work as an Online tourist guide.

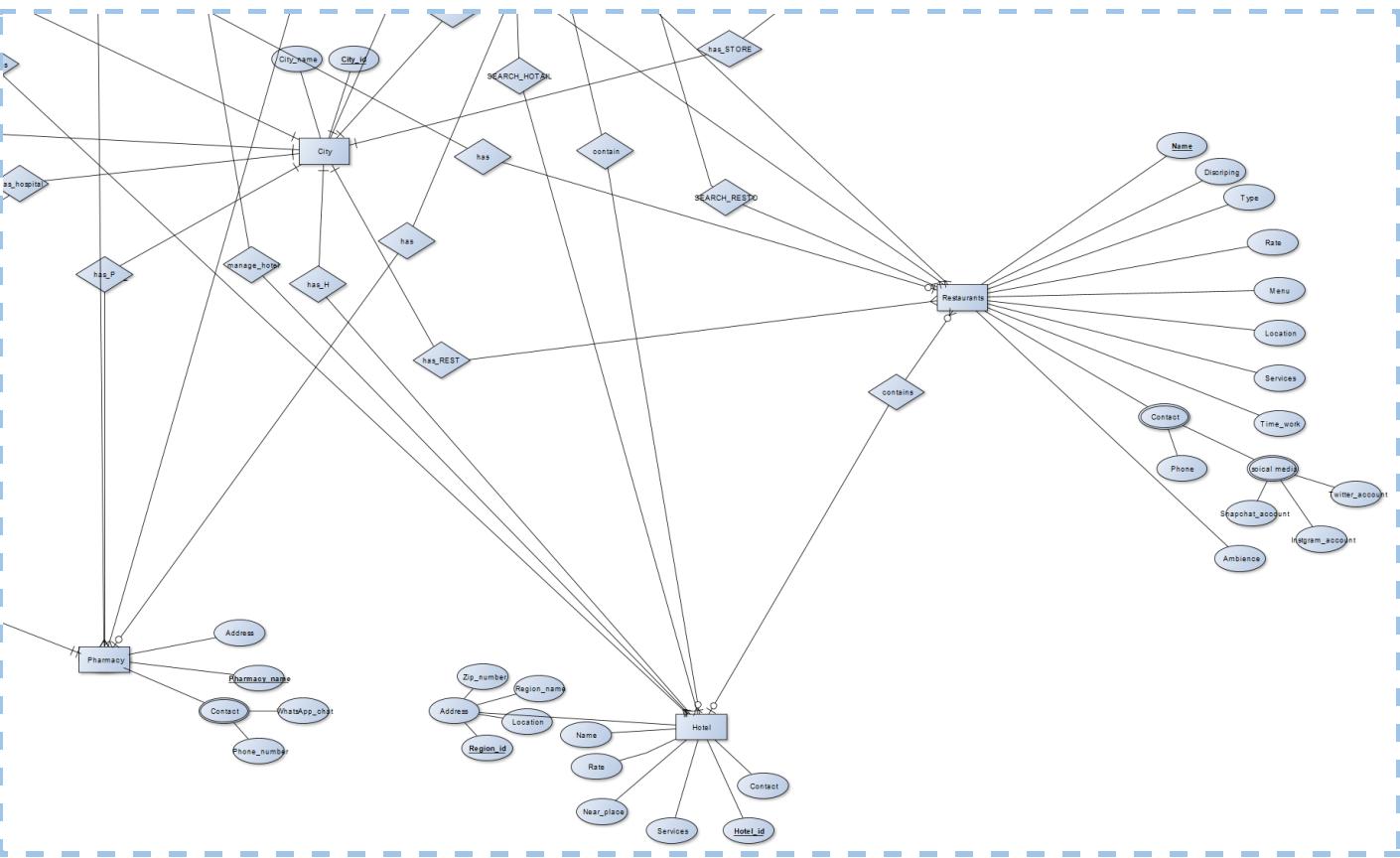
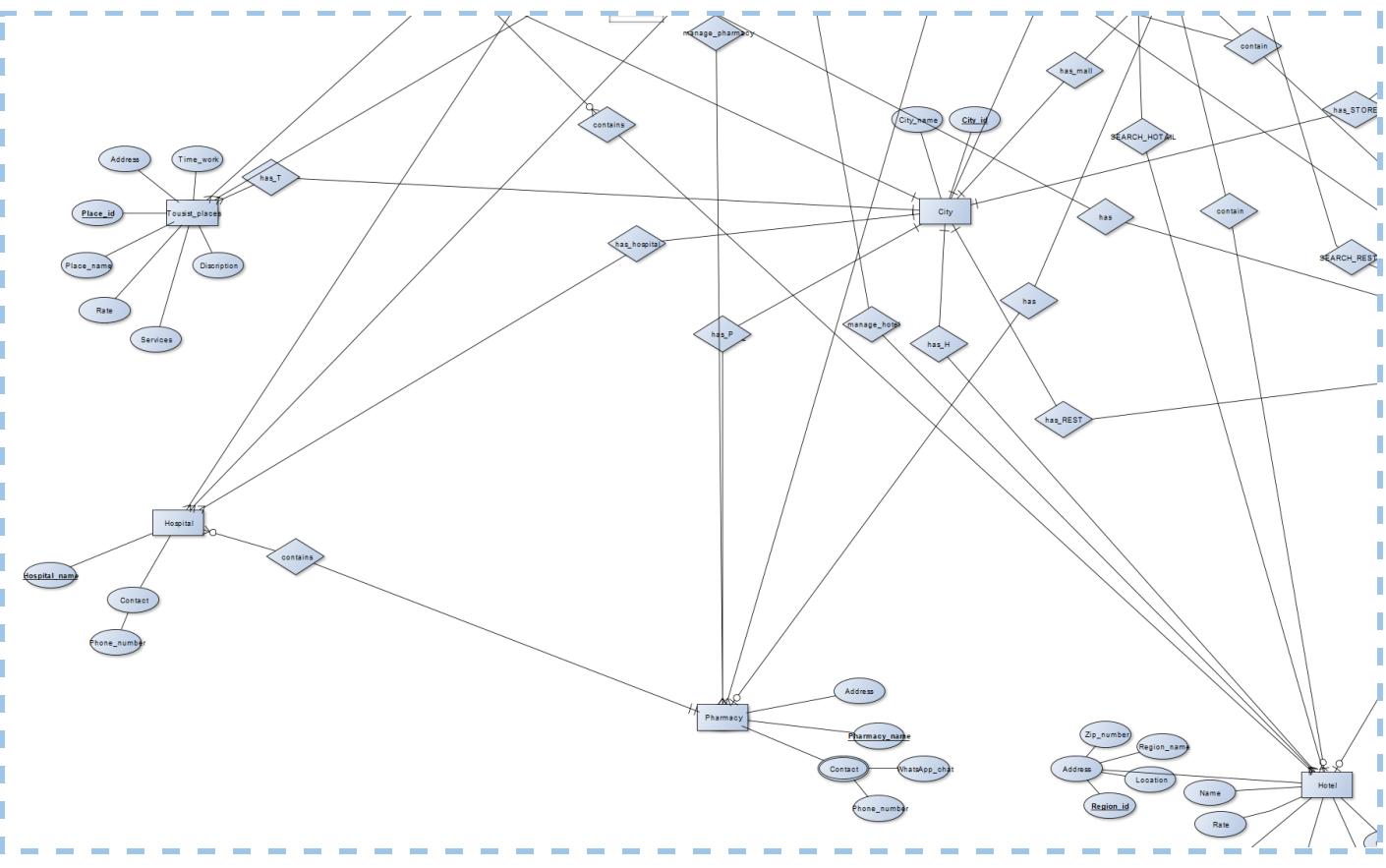
## 2. Conceptual Modeling (Entity-Relationship Diagram)

Full screenshots:

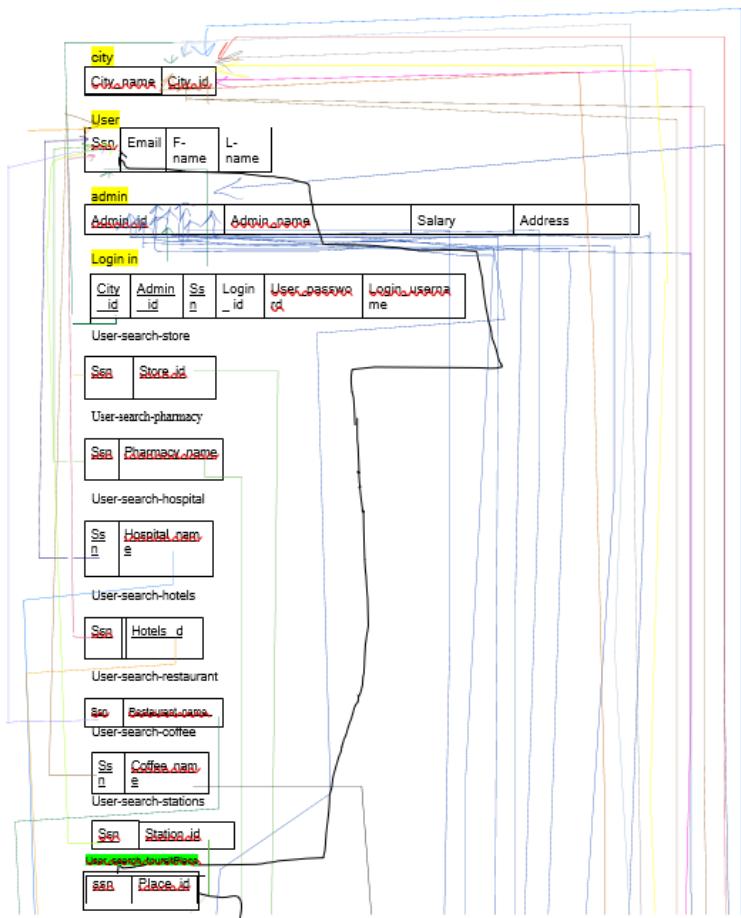


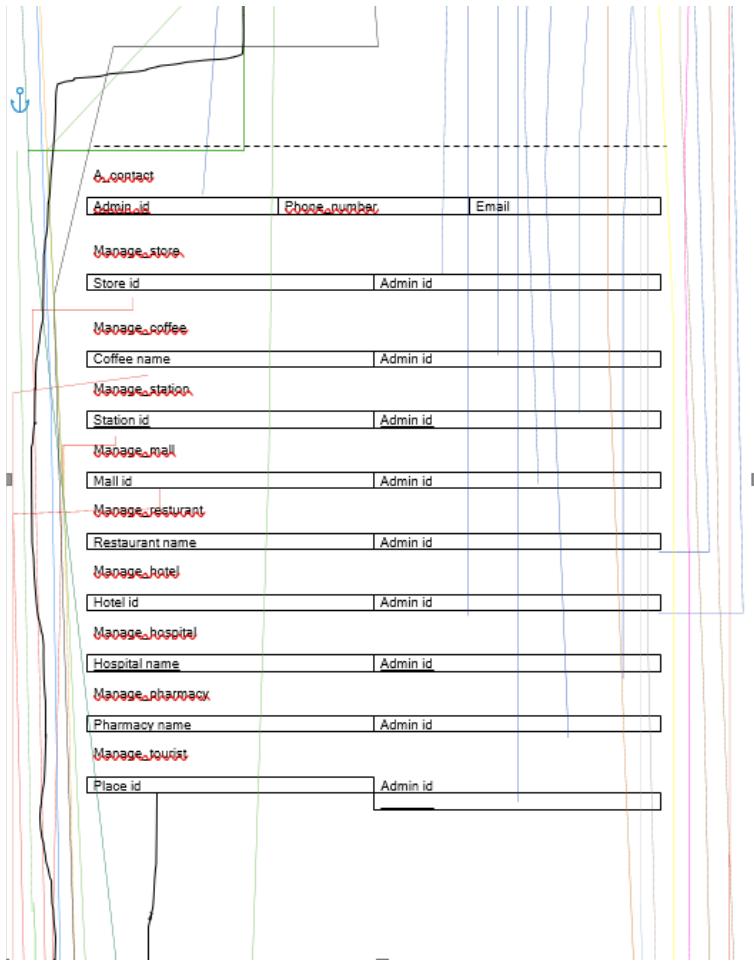
## Enlarged screenshots:

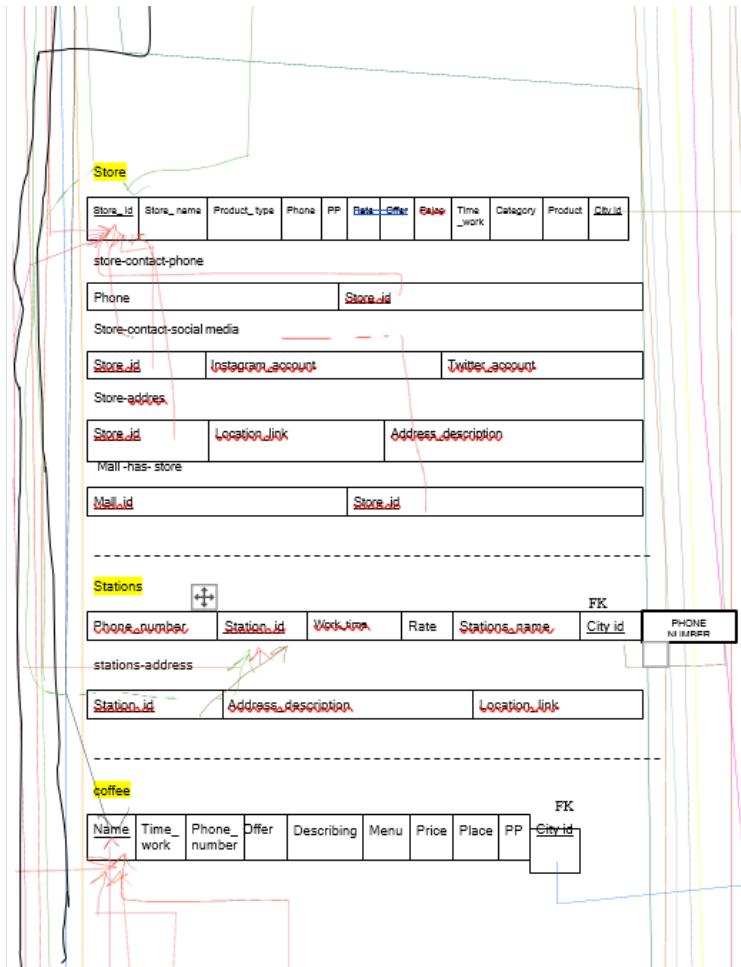


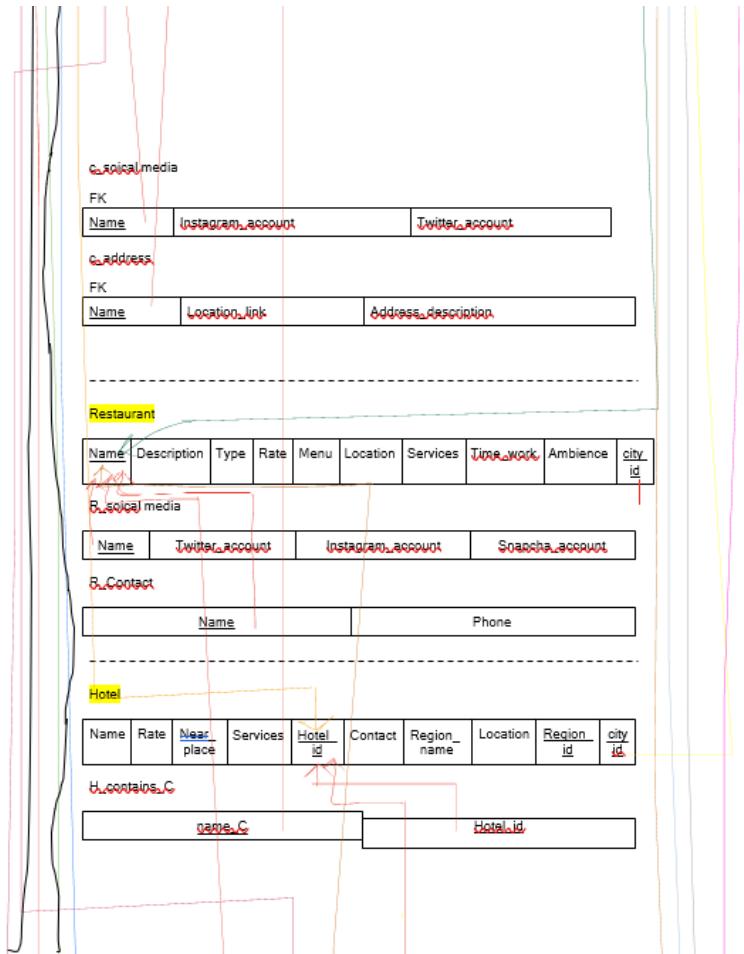


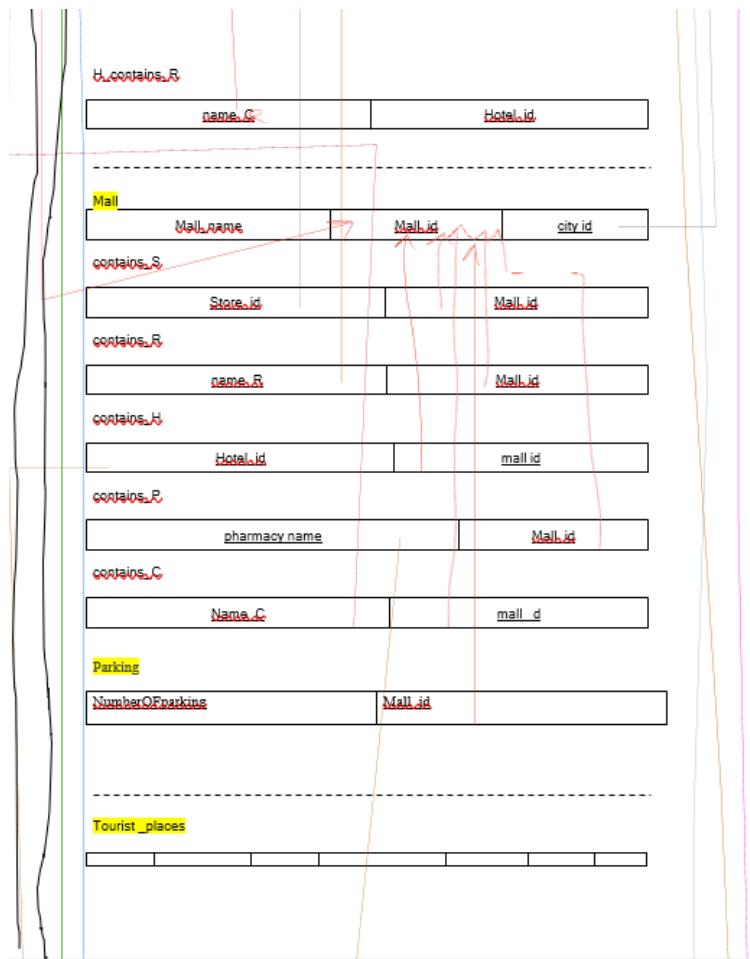
### 3. Logical Modeling (Mapping)

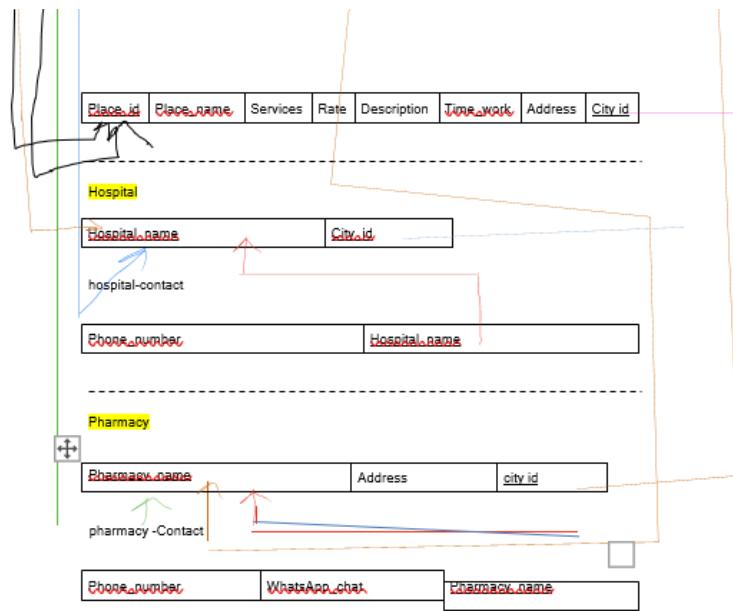












## DOMAIN

### Store

Attribute	Domain name	Meaning	Domain definition
Product_type	product type	set all possible product type that it can serve in store ex: food, clothes, furniture	VARCHAR2: size 200
Store_name	store name	set all possible stores name in city	VARCHAR2: size 50,
Store_id	store id	set all possible branch numbers	VARCHAR2: size 5
Category	category	the sex of person who can take advantage of the product in store female store-male store-iffy-children	VARCHAR2: size 1, value M, F, I,C
Store_offer	store offer	Set all possible offers for the stores	VARCHAR2: size 200
PP	policy and privacy for the stores	Give description about all the conditions for the store	VARCHAR2r: size 200
Time_work	time work of the store	Set all time work for the store in city	VARCHAR2:SIZE 45
Twitter_account	twitter account	To inquire more about the store	VARCHAR2: size 45
Instagram_account	instagram account	To inquire more about the store	VARCHAR2: size 45, starting with @
Address_description	address description of the store	Locate the station store	VARCHAR2: size 45

Location_link	location link of the store	Locate the station store	VARCHAR2: size 45
Phone_number1	phone number of the store	Contact the store	VARCHAR2: size 10
Rate	store rate	Show the rate and review the store	NUMBER: size (1,3) range from 1 to 5

## Login

Attribute	Domain name	Meaning	Domain definition
User_password	user password for login or register	set the password for register or enter for login	VARCHAR2: size 10
Login_username	username in system	set the username for register or enter for login	VARCHAR2: size 10
Login_id	verify code	enter verify code for login in	VARCHAR2: size 5

## gas stations

Attribute	Domain name	Meaning	Domain definition
Station_name	gas station name	set all possible name for stations in city	VARCHAR2: size 20
Station_id	gas station id	all possible the branch numbers	VARCHAR2: size 5
Phone_number	phone number of the gas station	Contact the station	VARCHAR2: size 13 starting with +966
Address_description	address description of the gas stations	Locate the station location	VARCHAR2: size 45
Location_link	location link of the gas station	Locate the station location	VARCHAR2: size 45
Time_work	gas Station's work	Set all time work for	VARCHAR2:SIZE 50

	time	the stations in city	
Rate	gas Station's rate	Show the rate and review stations	NUMBER: size (1,3) range from 1 to 5

## User

Attribute	Domain name	Meaning	Domain definition
First_name	user first name	Define the first name of user	VARCHAR2: size 50
Last_name	user last name	Define the last name of user	VARCHAR2: size 50
Email	contact user	Send email to announce and receive query of the user	VARCHAR2: size 50 include @
Ssn	social security number	distinguish each user	VARCHAR2: size 10

## Coffee

Attribute	Domain name	Meaning	Domain definition
Name	coffee name	Name of all coffee in that city	VARCHAR2: size 25
Time_work	time work of coffee	Time work of all coffee in that city	VARCHAR2: size 20
PP	policy and privacy	Condition that force to do from coffee	VARCHAR2: size 60

Menu	rate of menu of coffee	Rate of all coffee in that city depend on menu	NUMBER(1,3), range from 1 to 5
Price	rate of price of coffee	Rate of all coffee in that city depend on price	NUMBER(1,3), range from 1 to 5
Place	rate of place of coffee	Rate of all coffee in that city depend on place	NUMBER(1,3), range from 1 to 5
Offer	offer	What the coffee can provide	VARCHAR2: size 100
Describing	describing	Coffee how will look like	VARCHAR2: size 100
Location_link	location link	Link of coffee location	VARCHAR2: size 100
Address_description	address description	Location of coffee by words	VARCHAR2: size 100
Phone_number1	phone number	Phone number to contact with each coffee	VARCHAR2: size 13

Instagram_account	instagram account	instagram of each coffee either to contact or use it for any purpose	VARCHAR2: size 60, starting with @
Twitter_account	twitter account	Twitter of each coffee either to contact or use it for any purpose	VARCHAR2: size 60

## Admin

Attribute	Domain name	Meaning	Domain definition
Admin_id	admin id	ID number of admin as identifier of the admin	VARCHAR2: size 9
Admin_name	admin name	Name of admin this system	VARCHAR2: size 25
Salary	salary	Salary of admin this system	NUMBER : range 6000 - 40000
Address	address	Address of admin home	VARCHAR2: size 40
Phone_number	phone number	Phone of admin to contact	VARCHAR2: size 13
Email	email	Email of admin as second choice of	VARCHAR2: size 25,

		contact	include @
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## City

Attribute	Domain name	Meaning	Domain definition
City_id	city id	Id of cities in this system	VARCHAR2: size 5
City_name	city Name	Name of cities in this system	VARCHAR2: size 15

## Restaurant

Attribute	Domain name	Meaning	Domain definition
Name	restaurant name	name of all restaurant in the city	VARCHAR2: size 25
Describing	describing	The style for all restaurant in the city	VARCHAR2: size 100
Type	restaurant type	the type for the restaurant for example: Italian, Indian, etc	VARCHAR2: size 15

Rate	rate	Rating all restaurants out of 5 stars	Decimal: (4,2), range 1 – 5
Menu	menu	classes of dishes served in the restaurants	VARCHAR2: size 100
Location	location	location link for all restaurants	VARCHAR2: size 200
Services	services	The services provided by all restaurants	VARCHAR2: size 100
Time_work	TimeWork	time work for all restaurants	VARCHAR2: size 30
Twitter_account	twitter account	twitter account for all restaurants that have some information about the restaurant	VARCHAR2: size 20
Instagram_account	instagram account	instagram account for all restaurants that have some information about the restaurant	VARCHAR2: size 20 starting with @
Snapchat_account	snapchat account	snapchat account for all restaurants that have some information about the restaurant	VARCHAR2: size 20

Phone	phone number	the set of all restaurants phone number to connect with restaurants	VARCHAR2: size 10
Ambience	ambience	the ambiences for all restaurants for example: quiet, formal, etc	VARCHAR2: size 20

## Hotel

Attribute	Domain name	Meaning	Domain definition
Name	hotel name	name of all hotels in the city	VARCHAR2: size 25
Rate	rate	rating all hotels out of 5 stars	Decimal: (4,2), range 1 – 5
Near_place	near place	commonplace that is near to each hotel	VARCHAR2: size 25
Services	services	The services provided by all hotels	VARCHAR2: size 100
Hotel_id	hotel id	the set of all ID number for each hotel	VARCHAR2: size 10

Contact	contact number	the set of all hotels phone number to connect with it	VARCHAR2: size 10
Region_name	region name	the names of all regions where each hotel is located	VARCHAR2: size 25
Location	location	location link for all hotels	VARCHAR2: size 200
Region_id	region id	the set of all ID number for each region for hotel	VARCHAR2: size 10

## Mall

Attribute	Domain name	Meaning	Domain definition
Mall_name	mall name	Name of all malls in the city	varchar2: size 25
Mall_id	mall id	the set of all ID number for each mall	varchar2: size 10

## Parking

attribute	Domain name	meaning	Domain definition

NumberOfparking	number of parking	Set of all parking in that mall and identify with number	varchar2: size 5, starting with first letter of parking's floor
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## Tousist\_places

Attribute	Domain name	Meaning	Domain definition
Place_name	place name	Name of all tourist places	varchar2: size 25
Place_id	place id	The set of all ID number for each place	varchar2: size 10
Address	address of tourist place	Location of places by words	varchar2: size 100
Rate	rate	The rate of all tourist places out of 5 stars	number: size 1, range 0 - 5
Services	services	Services that provided by all places	varchar2: size 100
Description	description	The style of all places Ex: historical, etc	varchar2r: size 100
Time_work	time work	Time work for all places	varchar2: size 30

## Hospital

Attribute	Domain name	Meaning	Domain definition
Hospital_name	hospital name	Name of all hospitals in the city	VARCHAR2: size 25

Phone_number	phone number	The phone number to contact each hospital	VARCHAR2: size 10
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## Pharmacy

Attribute	Domain name	Meaning	Domain definition
Pharmacy_name	pharmacy name	Name of all pharmacies in the city	varchar2: size 25
Address	address of pharmacy	Location of pharmacy by words	varchar2: size 100
Phone_number	Phone number	The phone number to contact each pharmacy	varchar2: size 9 starting with +966
WhatsApp_chat	WhatsApp	WhatsApp of each pharmacy either to contact to use it for other purpose	varchar2: size 9 starting with +966

## 4. Logical Schema (with Constraints)

City table

```
CREATE TABLE city

(
    city_id      VARCHAR2(5)      NOT NULL,
    city_name    VARCHAR2(15)      NOT NULL,
    CONSTRAINT pk_city PRIMARY KEY(city_id)
);
```

### Coffee table

```
CREATE TABLE coffee

(
    name        VARCHAR2(25) NOT NULL ,
    PP          VARCHAR2(60) NOT NULL,
    time_work   VARCHAR2(20),
    offer       VARCHAR2(100),
    Describing  VARCHAR2(100),
    menu        NUMBER(1,3) NOT NULL CONSTRAINT rate_menu_coffee      CHECK
                    menu >= 1 AND menu <= 5,
    price       NUMBER(1,3) NOT NULL CONSTRAINT rate_price_coffee      CHECK price
                    >= 1 AND price <= 5,
    place       NUMBER(1,3) NOT NULL CONSTRAINT rate_place_coffee      CHECK place
                    >= 1 AND place <= 5,
```

```
phone_number1      VARCHAR2(13)      CONSTRAINT unique_num_co UNIQUE,  
  
City_id           VARCHAR2(5) NOT NULL  CONSTRAINT city_id_fk FOREIGN  
KEY(city_id) REFERENCES city(city_id) ON DELETE SET NULL,  
  
CONSTRAINT pk_coffeeN PRIMARY KEY(name)  
);
```

```
CREATE TABLE c_soical_media  
(  
  
twiter_account      VARCHAR2(60),  
  
Instagram_account  VARCHAR2(60) NOT NULL  CONSTRAINT check_insta_coffee  
check substr(Instagram_account ,1,1) = '@',  
  
Coffee_name  VARCHAR2(25) NOT NULL CONSTRAINT coffee_name_fk FOREIGN  
KEY(Coffee_name) REFERENCES coffee(name) ON DELETE SET NULL  
  
);
```

```
CREATE TABLE c_address  
(  
  
location_link  VARCHAR2(100),  
  
address_description  VARCHAR2(100) NOT NULL,  
  
coffee_name  VARCHAR2(25) NOT NULL  CONSTRAINT c_name_fk FOREIGN  
KEY(coffee_name) REFERENCES coffee(name) ON DELETE SET NULL  
  
);
```

### **Admin table**

```
CREATE TABLE admin

(
    admin_id  VARCHAR2(9)  NOT NULL      CONSTRAINT pk_adminID PRIMARY KEY
    (admin_id)

    admin_name  VARCHAR2(25) NOT NULL,
    salary      NUMBER      NOT NULL CONSTRAINT admin_salary CHECK (salary >= 6000
    AND salary <= 40000),
    address     VARCHAR2 (40)      NOT NULL,
);
```

### **CREATE TABLE A\_contact**

```
)  
email      VARCHAR2 (25)  NOT NULL  CONSTRAINT
check_email_admin check email LIKE '%@%',  
phone_number  VARCHAR (13)  CONSTRAINT unique_num UNIQUE,  
admin_id  VARCHAR2( 9 ) NOT NULL  CONSTRAINT fk_admin_contact
FOREIGN KEY (admin_id) REFERENCES  admin(admin_id) ON DELETE
SET NULL  
);
```

### **CREATE TABLE manage\_storeA**

```
(
```

```
store_id      VARCHAR2(5) CONSTRAINT fk_store_admin FOREIGN KEY(store_id)
REFERENCES store(store_id) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_store FOREIGN KEY
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

```
CREATE TABLE manage_coffee
(
coffee_name VARCHAR2(25) CONSTRAINT fk_coffee FOREIGN KEY(coffee_name)
REFERENCES coffee(name) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_co FOREIGN KEY
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

```
CREATE TABLE manage_stations
(
station_id      VARCHAR2(10) CONSTRAINT fk_station FOREIGN KEY(station_id)
REFERENCES stations(station_id) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_station FOREIGN KEY
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

```
CREATE TABLE manage_mall
(
```

```
mall_idVARCHAR2(10) CONSTRAINT fk_mall FOREIGN KEY(mall_id) REFERENCES  
mall(mall_id) ON DELETE SET NULL,  
  
admin_id VARCHAR2( 9 ) CONSTRAINT fk_admin_manage_mall FOREIGN KEY  
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL  
  
);
```

```
CREATE TABLE manage_hotel  
  
(  
  
hotel_id      VARCHAR2(10) CONSTRAINT fk_hotel FOREIGN KEY(hotel_id)  
REFERENCES hotel(hotel_id) ON DELETE SET NULL,  
  
admin_id  VARCHAR2( 9 ) CONSTRAINT fk_admin_manage_hotel FOREIGN KEY  
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL  
  
);
```

```
CREATE TABLE manage_restaurant  
  
(  
  
restaurant_name VARCHAR2(25) CONSTRAINT fk_restaurant FOREIGN  
KEY(restaurant_name) REFERENCES restaurant(name) ON DELETE SET NULL,  
  
admin_id  VARCHAR2( 9 ) CONSTRAINT fk_admin_manage_restaurant FOREIGN KEY  
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL  
  
);
```

```
CREATE TABLE manage_hospital  
  
(
```

```
hospital_name VARCHAR2(25) CONSTRAINT fk_hospital FOREIGN KEY(hospital_name)
REFERENCES hospital(hospital_name) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_hospital FOREIGN KEY
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

```
CREATE TABLE manage_pharmacy

(
pharmacy_name VARCHAR2(25) CONSTRAINT fk_pharmacy FOREIGN
KEY(pharmacy_name) REFERENCES pharmacy(pharmacy_name) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_pharmacy FOREIGN KEY
(admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

```
CREATE TABLE manage_tourist

(
tourist_id      VARCHAR2(5) CONSTRAINT fk_tourist FOREIGN KEY(tourist_id)
REFERENCES tousist_places
(Place_id) ON DELETE SET NULL,
admin_id  VARCHAR2( 9 )  CONSTRAINT fk_admin_manage_tourist_place FOREIGN
KEY (admin_id) REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

### **Login table**

```
CREATE TABLE login
(
    user_password      VARCHAR2(10)      NOT NULL,
    login_username     VARCHAR2(10)      NOT NULL  CONSTRAINT
    unique_username   UNIQUE,
    login_id          VARCHAR2(5) NOT NULL,
    user_ssn          VARCHAR2(10)      CONSTRAINT fk_ssn_log_user FOREIGN KEY
    (user_ssn) REFERENCES user_info(ssn) ON DELETE SET NULL,
    city_id           VARCHAR2(5)  CONSTRAINT fk_city_log_name FOREIGN KEY (city_id)
    REFERENCES city(city_id) ON DELETE SET NULL,
    admin_id          VARCHAR2( 9 )  CONSTRAINT fk_admin_log_id FOREIGN KEY (admin_id)
    REFERENCES admin(admin_id) ON DELETE SET NULL
);
```

### **Restaurant table**

```
CREATE TABLE Restaurant
(Name VARCHAR2(25) NOT NULL,
Describing VARCHAR2(100),
Type VARCHAR2(15) NOT NULL,
Rate DECIMAL(4,2),
Menu VARCHAR2(100) NOT NULL,
```

```
Location VARCHAR2(200) NOT NULL,  
Services VARCHAR2(100),  
Time_work VARCHAR2(30) NOT NULL,  
Ambience VARCHAR2(20),  
City_id VARCHAR2(5) NOT NULL,  
PRIMARY KEY (Name),  
FOREIGN KEY (City_id) REFERENCES City (City_id) ON DELETE SET NULL,  
CHECK (Rate > =1 AND Rate <=5));
```

```
CREATE TABLE R_soical_media  
(Name VARCHAR2(25) NOT NULL,  
TwitterAccount VARCHAR2(20),  
InstagramAccount VARCHAR2(20),  
SnapchatAccount VARCHAR2(20),  
FOREIGN KEY (Name) REFERENCES Restaurant (Name) ON DELETE SET NULL);
```

```
CREATE TABLE R_Contact  
(Name VARCHAR2(25) NOT NULL,  
Phone VARCHAR2(10) NOT NULL,  
UNIQUE(Phone),  
FOREIGN KEY (Name) REFERENCES Restaurant (Name) ON DELETE SET NULL);
```

## **Hotel table**

```
CREATE TABLE Hotel  
(Name VARCHAR2(25) NOT NULL,  
Rate DECIMAL(4,2),  
Near_place VARCHAR2(25),  
Services VARCHAR2(100),  
Hotel_id VARCHAR2(10) NOT NULL,  
Contact VARCHAR2(10) NOT NULL,  
Region_name VARCHAR2(25) NOT NULL,  
Location VARCHAR2(200) NOT NULL,  
Region_id VARCHAR2(10) NOT NULL,  
City_id VARCHAR2(5) NOT NULL,  
PRIMARY KEY (Hotel_id),  
UNIQUE(Contact),  
FOREIGN KEY (City_id) REFERENCES City (City_id) ON DELETE SET NULL,  
CHECK (Rate > =1 AND Rate <=5));
```

## **CREATE TABLE H\_contains\_C**

```
(Name_C VARCHAR2(25) NOT NULL,
```

```
Hotel_id VARCHAR2(10) NOT NULL,  
FOREIGN KEY (Name_C) REFERENCES Coffee (Name) ON DELETE SET NULL,  
FOREIGN KEY (Hotel_id) REFERENCES Hotel (Hotel_id) ON DELETE SET NULL);
```

```
CREATE TABLE H_contains_R  
(Name_R VARCHAR2(25) NOT NULL,  
Hotel_id VARCHAR2(10) NOT NULL,  
FOREIGN KEY (Name_R) REFERENCES Restaurant (Name) ON DELETE SET NULL,  
FOREIGN KEY (Hotel_id) REFERENCES Hotel (Hotel_id) ON DELETE SET NULL);
```

### Hospital table

```
CREATE TABLE Hospital  
(Hospital_name VARCHAR2(25) NOT NULL,  
City_id VARCHAR2(5) NOT NULL,  
PRIMARY KEY (Hospital_name),  
FOREIGN KEY (City_id) REFERENCES City (City_id) ON DELETE SET NULL);
```

```
CREATE TABLE hospital_contact
```

```
(Phone_number VARCHAR2(10) NOT NULL,  
Hospital_name VARCHAR2(25) NOT NULL,  
UNIQUE(Phone_number),  
FOREIGN KEY (Hospital_name) REFERENCES Hospital(Hospital_name) ON DELETE SET  
NULL);
```

### User table

```
create table user_info (  
first_name  varchar2(50) NOT NULL ,  
Last_Name   varchar2(50) not null ,  
ssn         varchar2(10) NOT NULL,  
email       varchar2(50) NOT NULL,  
CONSTRAINT  userInfo_SSN_VAR_pk    PRIMARY KEY(ssn),  
CONSTRAINT  userInfo_EMAIL_VAR_UQ UNIQUE(email),  
CONSTRAINT ch_email  CHECK (email like'%@%')  
);
```

### create table user\_search\_store

```
(  
Ssn      varchar2(10)  CONSTRAINT ssn_sS_fk REFERENCES user (ssn) ON DELETE SET  
NULL  
,
```

```
    store_id      varchar2(5)  CONSTRAINT storeID_ss_fk REFERENCES store (store_id)
ON DELETE SET NULL
);
```

```
create table user_search_pharmacy
(
    Ssn          varchar2(10)  CONSTRAINT ssn_sp_fk REFERENCES user (ssn)
ON DELETE SET NULL
,
    Pharmacy_name  varchar2(25)  CONSTRAINT pharmacy_sp_fk REFERENCES
pharmacy (pharmacy_name) ON DELETE SET NULL );
```

```
create table user_search_hospital
(
    Ssn          varchar2(10)  CONSTRAINT ssn_shos_fk REFERENCES user (ssn) ON
DELETE SET NULL
,
    Hospital_name  varchar2(25)  CONSTRAINT hospital_sho_fk REFERENCES
hospital (hospital_name) ON DELETE SET NULL
);
```

```
create table user_search_hotels

(
    Ssn          varchar2(10)  CONSTRAINT ssn_sH_fk REFERENCES user (ssn) ON
    DELETE SET NULL

    ,

    Hotel_id      varchar2(10)  CONSTRAINT hotel_sH_fk REFERENCES hotel
    (hotel_id) ON DELETE SET NULL
);


```

```
create table user_search_restaurant

(
    ssn      varchar2(10)  CONSTRAINT ssn_sR_fk REFERENCES user (ssn) ON DELETE
    SET NULL

    ,

    Restaurant_name  varchar2(25)  CONSTRAINT restaurant_search_fk REFERENCES
    restaurant (restaurant_name) ON DELETE SET NULL
);


```

```
create table user_search_coffee

(
    ssn      varchar2(10)  CONSTRAINT ssn_sC_fk REFERENCES user (ssn) ON
    DELETE SET NULL
)
```

```
,  
  
    coffee_name      varchar2(25)  CONSTRAINT coffee_name_fk REFERENCES coffee  
(coffee_name) ON DELETE SET NULL  
);
```

```
create table user_search_stations  
(  
    ssn      varchar2(10)  CONSTRAINT ssn_search_fk REFERENCES user (ssn) ON  
DELETE SET NULL ,  
  
    station_id      varchar2(10)  CONSTRAINT station_id_fk REFERENCES stations  
(station_id) ON DELETE SET NULL  
);
```

### Stations table

```
create table stations(  
    station_id      varchar2(5) CONSTRAINT station_id_pk primary key,  
    station_name     varchar2(20) not null,  
    phone_number     varchar2(10) not null,  
    rate            number(1,1)  CONSTRAINT rate_ch_station check (rate>=1 and
```

```
rate<=5),  
  
time_work      date      ,  
  
city_id      varchar2(5) CONSTRAINT station_city_fk REFERENCES city (city_id )  
ON DELETE SET NULL  
  
,CONSTRAINT station_phone_uq unique(phone_number),CONSTRAINT  
station_phone_check check(phone_number like '+966%' )  
  
);
```

```
create table stations_address (  
  
station_id      varchar2(10)  CONSTRAINT station_id_fk REFERENCES stations  
(station_id),  
  
address_desription  varchar2(45) not null ,  
  
location_link      nvarchar2(45) not null  
);
```

### Store table

```
create table store(  
  
store_id      varchar2(5) CONSTRAINT store_id_pk primary key,  
  
create table store(  
  
store_id      varchar2(5) CONSTRAINT store_id_pk primary key,
```

```
store_name      varchar2(50) not null,  
product_type    varchar2(200) not null,  
category        varchar2(1)   CHECK ( category IN('M','F','C','T') ),  
rate            NUMBER (1,1)  CONSTRAINT rate_ch check (rate>=1 and  
rate<=5),  
offer           varchar2(200) ,  
time_work       date         ,  
city_id         varchar2(5)  CONSTRAINT store_city_fk REFERENCES city  
(city_id) ON DELETE SET NULL ,  
pp              varchar2(200) not null  
);
```

```
create table store_contact_phone  
(  
    phone_number    varchar2(10)     ,  
  
    store_id        varchar2(5)     CONSTRAINT store_contact_fk REFERENCES store  
(store_id) ON DELETE SET NULL ,  
  
    CONSTRAINT store_phone_uq unique(phone_number), CONSTRAINT  
    store_phone_ch  check(phone_number like '+966%')  
);
```

```
create table store_contact_social_media
(
    Instagram_account varchar2(45) CONSTRAINT check_insta check
        (Instagram_account like '@%'),
    Twitter_account      varchar2(45) CONSTRAINT check_twitter check
        (Twitter_account like '@%'),
    store_id             varchar2(5) CONSTRAINT store_contactS_fk REFERENCES
        store (store_id) ON DELETE SET NULL
);
```

```
create table store-address
(
    address_desription   varchar2(45) not null ,
    location_link         nvarchar2(45) not null ,
    store_id               varchar2(5) CONSTRAINT store_add_fk REFERENCES store
        (store_id) ON DELETE SET NULL
);
```

```
create table mall_has_store

(
    MALL_ID      varchar2(25) CONSTRAINT store_mall_fk REFERENCES MALL (MALL_ID)
    ON DELETE SET NULL ,
    store_id      varchar2(5) CONSTRAINT store_add_fk REFERENCES store
    (store_id) ON DELETE SET NULL
);
```

#### Mall table

```
CREATE TABLE mall (
    mall_id VARCHAR2(10) NOT NULL CONSTRAINT pk_mall PRIMARY KEY(mall_id),
    mall_name VARCHAR2(25) NOT NULL,
    city_id VARCHAR2(5) CONSTRAINT mall_city_fk REFERENCE city(city_id) ON DELETE
    SET NULL
);
```

#### Parking table

```
CREATE TABLE parking (
```

```
    NumberOfParking VARCHAR2(4) NOT NULL CONSTRAINT pk_parking PRIMARY KEY  
    (NumberOfParking)
```

```
    city_id VARCHAR2(5) CONSTRAINT parking_city_fk REFERENCE city(city_id) ON  
    DELETE SET NULL
```

```
    Add constraint check_parking CHECK (NumberOfParking LIKE '_%');
```

#### **Tourist\_place table**

```
CREATE TABLE tourist_places (
```

```
    place_name VARCHAR2(25) NOT NULL,
```

```
    place_id VARCHAR2(10) NOT NULL CONSTRAINT pk_place PRIMARY KEY(place_id),
```

```
    address VARCHAR2(100),
```

```
    rate FLOAT(5) CONSTRAINT check_rate check rate >= 1 AND rate <= 5,
```

```
    services VARCHAR2(100),
```

```
    description VARCHAR2(100),
```

```
    time_work date ,
```

```
    city_id VARCHAR2(5) CONSTRAINT tourist_city_fk REFERENCE city(city_id) ON DELETE  
    SET NULL,
```

```
);
```

#### **Pharmacy table**

```
CREATE TABLE pharmacy (  
  
pharmacy_name VARCHAR2(25) NOT NULL CONSTRAINT pk_pharmacy PRIMARY  
KEY(pharmacy_name),  
  
address VARCHAR2(100),  
  
city_id VARCHAR2(5) CONSTRAINT pharmacy_c6ity_fk REFERENCE city(city_id) ON  
DELETE SET NULL  
);
```

---

```
CREATE TABLE pharmacy-contact(  
  
phone_number VARCHAR2(9) CONSTRAINT pharmacy_phone_uq unique,  
  
whatsAPP_chat -,  
  
pharmacy_name VARCHAR2(25) NOT NULL CONSTRAINT pharmacy_name_fk  
REFERENCE  
pharmacy(pharmacy_name) ON DELETE SET NULL  
);
```

## 5. Queries

### city table

**CITY**

EDIT	CITY_ID	CITY_NAME
	31982	Al ahsa

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Application Express 19.1.0.00.

## admin table

**ADMIN**

EDIT	ADMIN_ID	ADMIN_NAME	SALARY	ADDRESS
	219025504	Hissah	40000	almubariz
	219010636	Noura	40000	Alhofuf
	219009389	Ghaida	6500	al hofuf
	219029556	Latifa	6000	Near of KFU

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Application Express 19.1.0.00.

## STATIONS TABLE

**STATIONS**

Row updated.

STATION_ID	STATION_NAME	PHONE_NUMBER	RATE	TIME_WORK	CITY_ID
S4123	Sasco Petrol Station	+966509371846	2.3	01-APR-21 12.22.30.000000 PM	31982
12300	NAJAH	+966501111211	4.1	29-APR-21 12.03.50.000000 AM	31982
10292	ALAHSA GAS STATION	+966501235782	4.7	29-APR-21 12.00.00.000000 AM	31982

## STORE TABLE

**STORE**

Row(s) 1 - 4 of 4

STORE_ID	STORE_NAME	PRODUCT_TYPE	CATEGORY	RATE	OFFER	TIME_WORK	CITY_ID	PP
21112	LULU MARKET	FOOD	I	-	NO OFFER	-	31982	NO CHILDREN
99021	ASHY	FURNITURE	I	-	NO OFFER	-	31982	NO SMOKING
23831	SACO	HOME STAFF	I	2.3	-	23-APR-21 12.00.00.000000 AM	31982	NO SMOKING
77777	NEQSA	SWEET	I	4.5	10 % DISCOUNT	27-APR-21 12.00.00.000000 AM	31982	NO SMOKING

## USER TABLE

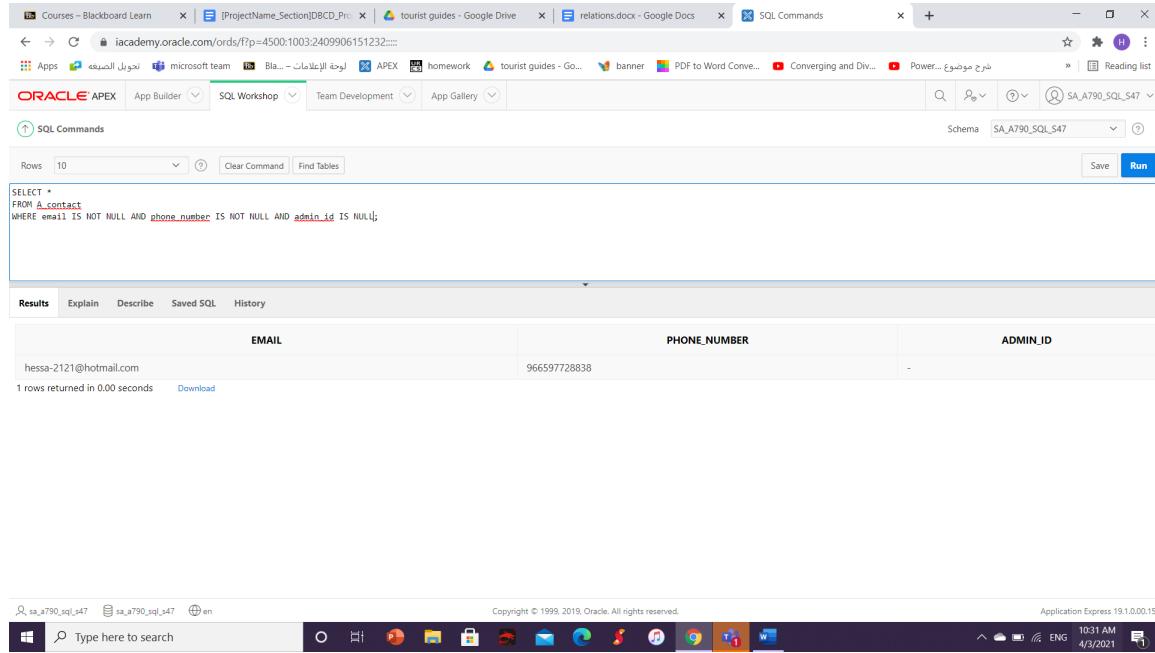
**USER\_INFO**

Row(s) 1 - 4 of 4

FIRST_NAME	LAST_NAME	SSN	EMAIL
LATIFAH	ALHATLAN	1111111111	LATIFAH@GMAIL.COM
NOURA	ALMOSENED	1100001234	nmmn@gmail.com
HISSAH	ALWESFER	103333333	HISSA@MMGMAIL
GHAIADA	ALARFAG	1292277327	GHAIADA@GMAIL.COM

## 6. Reports

1- we want to know who the admin has a salary of 9000 or 40000.

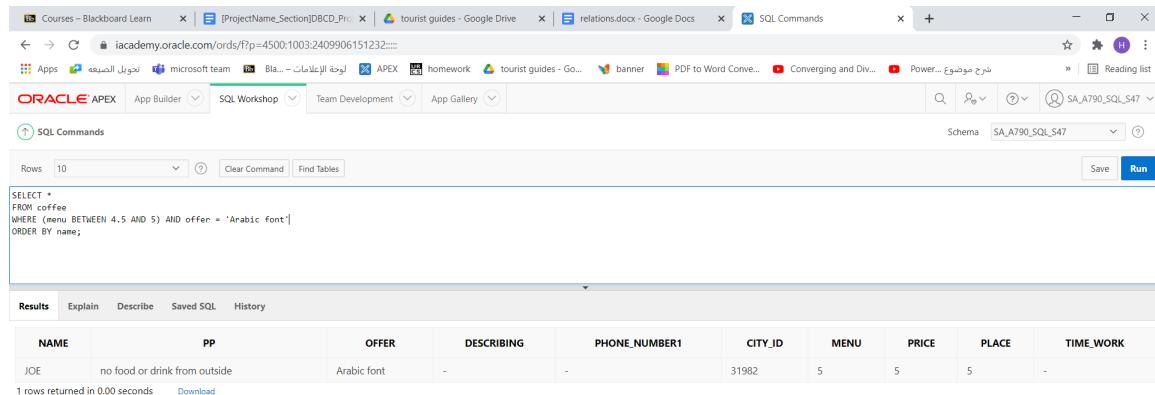


```
SELECT *
FROM A_contact
WHERE email IS NOT NULL AND phone_number IS NOT NULL AND admin_id IS NULL;
```

EMAIL	PHONE_NUMBER	ADMIN_ID
hessa-2121@hotmail.com	966597728838	-

1 rows returned in 0.00 seconds [Download](#)

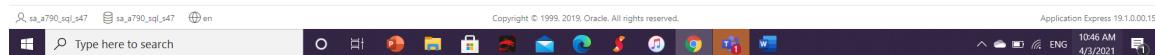
2- Faisal is a tourist and he likes to know the talent for which the city is famous, also he wants to go to coffee that has 4.5 or 5 stars on the menu.



```
SELECT *
FROM coffee
WHERE (menu BETWEEN 4.5 AND 5) AND offer = 'Arabic font'
ORDER BY name;
```

NAME	PP	OFFER	DESCRIBING	PHONE_NUMBER1	CITY_ID	MENU	PRICE	PLACE	TIME_WORK
JOE	no food or drink from outside	Arabic font	-	-	31982	5	5	5	-

1 rows returned in 0.00 seconds [Download](#)



3- Ahmad wants to find a restaurant that has a delivery, and rate more than or equal 4. He wants to see just the name of the restaurant with its type to choose from them.

```
SELECT name ||': the type of food is '|| type AS "Name of Restaurant and Type"
from restaurant
where services like '%Delivery%' AND rate >= 4;
```

**Results**

Name of Restaurant and Type
Bharat: the type of food is Indian
Alkeet: the type of food is sea food

2 rows returned in 0.00 seconds [Download](#)

#### 4- AHMAD WANTS TO LIST STORES THAT HAVE RATE >2.3

```
select * from store where RATE>2.3;
```

**Results**

STORE_ID	STORE_NAME	PRODUCT_TYPE	CATEGORY	RATE	OFFER	TIME_WORK	CITY_ID	PP
77777	NEQSA	SWEET	I	4.5	10 % DISCOUNT	27-APR-21 12.00.00.000000 AM	31982	NO SMOKING

1 rows returned in 0.00 seconds [Download](#)

5-AHMAD WANT TO LIST THE PHONE NUMBER WHERE STATION NAME IS Sasco Petrol Station

The screenshot shows the Oracle SQL Workshop interface. The query entered is:

```
select PHONE_NUMBER FROM STATIONS WHERE STATION_NAME LIKE 'Sasco Petrol Station';
```

The results show one row returned:

PHONE_NUMBER
+966509371846

1 rows returned in 0.01 seconds [Download](#)

## 6-AHMAD WANTS TO LIST ALL EMAIL FOR USERS

The screenshot shows the Oracle SQL Workshop interface. The query entered is:

```
SELECT EMAIL FROM USER_INFO;
```

The results show four rows returned:

EMAIL
GHAIDA@GMAIL.COM
HISSA@MM.GMAIL
LATIFAH@GMAIL.COM
nmmm@gmail.com

4 rows returned in 0.00 seconds [Download](#)

## 7- display all the information of pharmacies located in almubarraz

The screenshot shows the Oracle SQL Workshop interface. The query entered is:

```
SELECT * FROM PHARMACY
WHERE address = 'almubarraz'
```

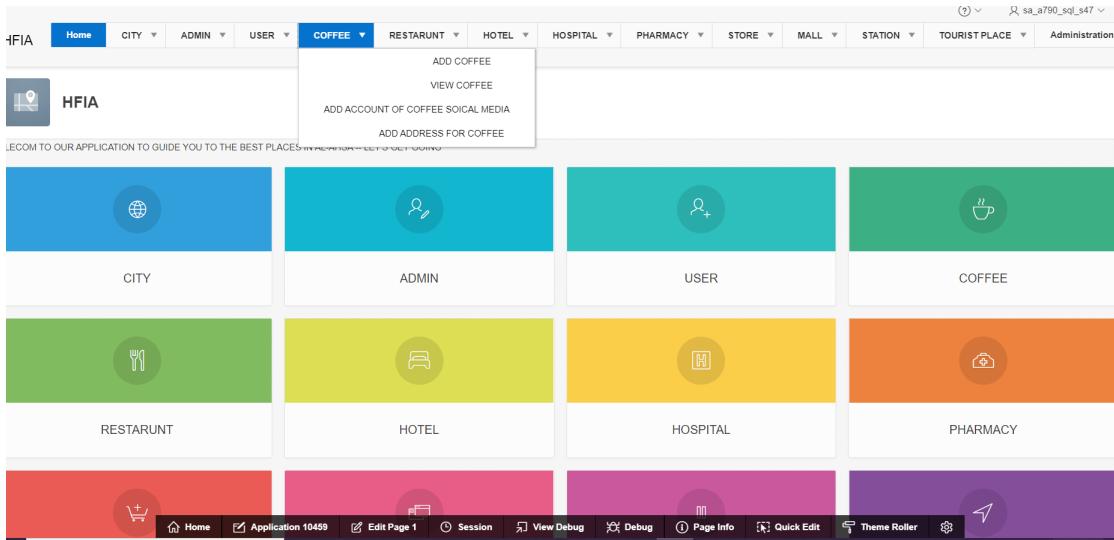
The results show one row returned:

PHARMACY_NAME	ADDRESS	CITY_ID
almousa pharmacy	almubarraz	31982

1 rows returned in 0.00 seconds [Download](#)

## 6. GUI

The image displays two screenshots of the HFIA application's graphical user interface (GUI).  
The top screenshot shows the login screen. It features a background illustration of various travel-related landmarks: the Eiffel Tower, a windmill, a hot air balloon, the Statue of Liberty, and a Japanese torii gate. A banner at the top reads "WELCOME TO OUR APPLICATION TO GUIDE YOU TO THE BEST PLACES IN AL-AHSA - LET'S GET GOING". The login form itself has a white background and includes fields for "Username" (containing "sa\_a790\_sql\_s47") and "Password" (containing "\*\*\*\*\*"). There is also a checked "Remember username" checkbox and a "Sign In" button. Below the login form is a navigation bar with links like Home, Application 10459, Edit Page 9999, Session, View Debug, Page Info, Quick Edit, Theme Roller, and Administration.  
The bottom screenshot shows the main dashboard after logging in. The top navigation bar is identical. The dashboard is organized into a grid of 16 colored cards, each representing a category: CITY (blue), ADMIN (teal), USER (light blue), COFFEE (green), RESTARUNT (light green), HOTEL (yellow-green), HOSPITAL (yellow), PHARMACY (orange), STORE (red), MALL (pink), STATION (purple), and TOURIST PLACE (dark purple). Each card contains a small icon and the category name. The "HOME" link in the navigation bar is highlighted in blue, indicating the current page.



USER			
WELCOME TO OUR APPLICATION TO GUIDE YOU TO THE BEST PLACES IN AL-ANSA-- LETS GET GOING			
<input type="text"/>	<input type="button" value="Go"/>	<input type="button" value="Actions ▾"/>	<input type="button" value="Reset"/>
First Name	Last Name	Ssn	Email
GHAIDA	ALARIFAG	1292277327	GHAIDA@GMAIL.COM
HISSAH	ALWESIFER	102333333	HISSA@MM.GMAIL
LATIFAH	ALHATLAN	111111111	LATIFAH@GMAIL.COM
NOURA	ALMOSENED	1100001234	nmm@gmail.com

HFIA

Home CITY ADMIN USER COFFEE RESTARUNT HOTEL HOSPITAL PHARMACY STORE MALL STATION TOURIST PLACE Administration

**STORE**

WELECOM TO OUR APPLICATION TO GUIDE YOU TO THE BEST PLACES IN AL-AHSA - LET'S GET GOING

Go Actions ▾

Store ID ↑	Store Name	Product Type	Category	Rate	Offer	Time Work	City ID	Pp
21112	LULU MARKET	FOOD	I	-	NO OFFERING	-	31982	NO CHILDREN
23831	SACO	HOME STAFF	I	2	-	23-APR-21 12:00:00.000000 AM	31982	NO SMOKING
77777	NEQSA	SWEET	I	5	10 % DISCOUNT	27-APR-21 12:00:00.000000 AM	31982	NO SMOKING
99021	ASHLY	FURTURE	I	-	NO OFFER	-	31982	NO SMOKING

1 - 4

Release 1.0

HFIA

Home CITY ADMIN USER COFFEE RESTARUNT HOTEL HOSPITAL PHARMACY STORE MALL STATION TOURIST PLACE Administration

**ADD LOCATION**

WELECOM TO OUR APPLICATION TO GUIDE YOU TO THE BEST PLACES IN AL-AHSA - LET'S GET GOING

Search: All Text Columns Go Actions ▾ Edit Save Add Row Reset

Address Description	Location Link	Store Id
ALAHSA NEXT TO ALDANOUB STORE	http://g oo. gl/m aps/3M7R E51 BZx Kt1 YX	21112

1 rows selected Total 1

Release 1.0

S Undetermined: SRS FOR BANK x | Srs for banking system x | Microsoft Word - LTFACourse x | App Builder x | MALL x +

icademy.oracle.com/ords/f?p=10459:18:4563797160923::NO::

Apps Gmail Blackboard Learn YouTube Maps Google Se... ~ سایت Solutions to Appli... 76416736.pdf Srs for banking sy... Calculus II - Sequ... » Reading List

HFIA Home CITY ADMIN USER COFFEE RESTAURANT HOTEL HOSPITAL PHARMACY STORE MALL STATION TOURIST PLACE

MALL

WELECOM TO OUR APPLICATION TO GUIDE YOU TO THE BEST PLACES IN AL-AHSA -- LET'S GET GOING

Q Go Actions ▾

Reset Create

Mall ID ↑↓	Mail Name	City ID
1000000000	Alahsa Mall	31982
2000000000	alatheem mall	31982
3000000000	alfaarees mall	31982
4000000000	airashid mall	31982

1 - 4

Release 1.0

Home Application 10459 Edit Page 18 Session View Debug Debug Page Info Quick Edit Theme Roller