

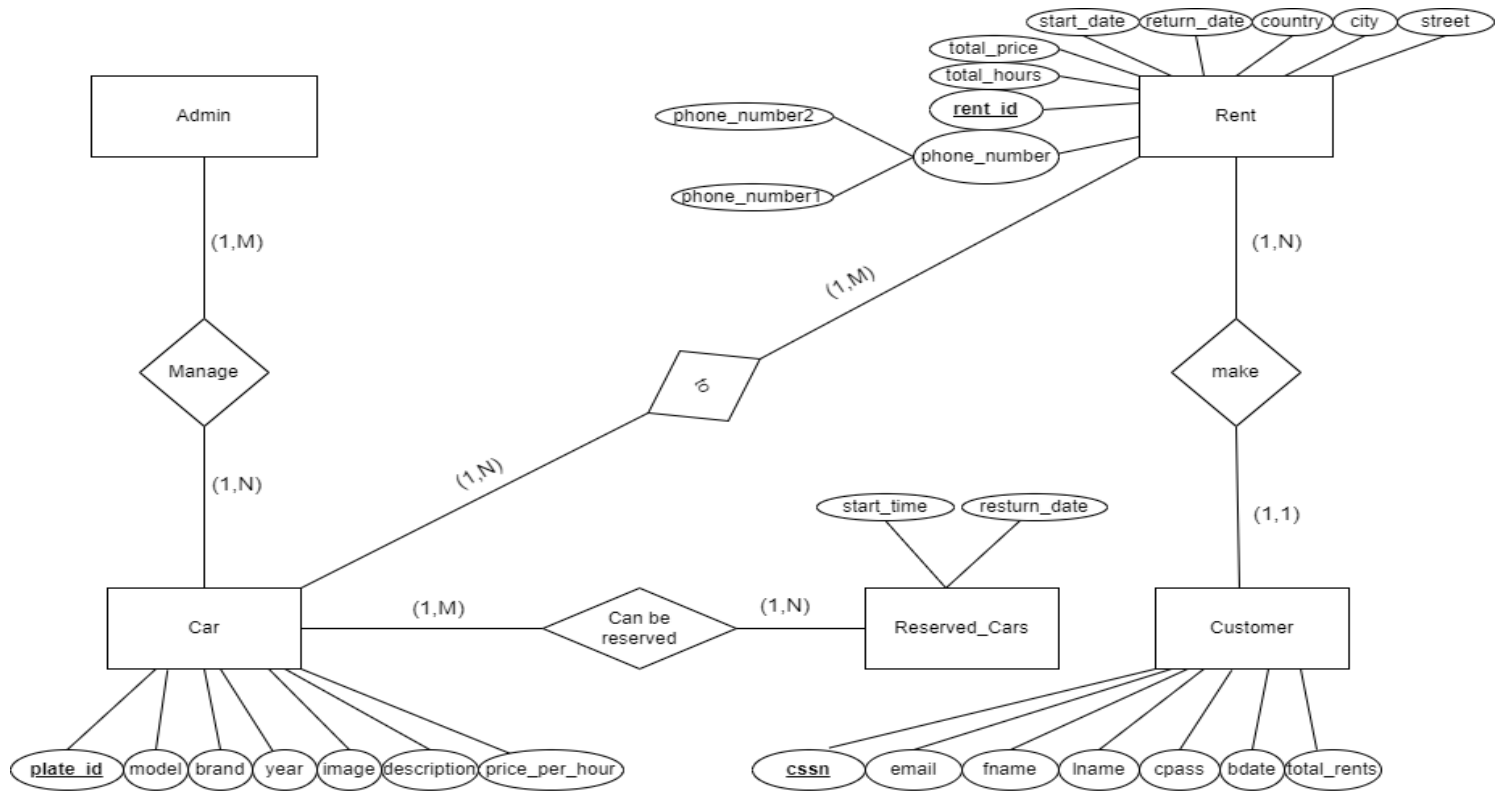
## **Data Base Final Project**

### **Team**

- 1)** Ahmed Abdelrahman    2205008    (Frontend + ERD)
- 2)** Mark Magdy                      2205040    (Backend + Database design)
- 3)** Arsany Osama                      2205122    (Backend + Report)

### **Project link :**

[https://drive.google.com/drive/folders/1UZnR6GgLfQ8TzfzgfSM6ptxOSOoYRHxE?usp=drive\\_link](https://drive.google.com/drive/folders/1UZnR6GgLfQ8TzfzgfSM6ptxOSOoYRHxE?usp=drive_link)



## After Mapping & Normalization

### Admin

<u>id</u>	email	fname	lname	password	city	street
-----------	-------	-------	-------	----------	------	--------

### Car

<u>plate_id</u>	model	brand	color	year	price_per_hour	image	description
-----------------	-------	-------	-------	------	----------------	-------	-------------

### Reserved\_Cars

<u>plate_id</u>	start_time	return_date
-----------------	------------	-------------

### Rent

<u>rent_id</u>	cssn	plate_id	total_hours	start_date	return_date	total_price
----------------	------	----------	-------------	------------	-------------	-------------

### Rent\_Contact

<u>rent_id</u>	phone_number1	phone_number2
----------------	---------------	---------------

### Customer

<u>cssn</u>	email	fname	lname	cpass	bdate	total_rent
-------------	-------	-------	-------	-------	-------	------------

### Rent\_Address

<u>rent_id</u>	address_id
----------------	------------

### Customer\_Address

<u>address_id</u>	cssn	country	city	street
-------------------	------	---------	------	--------

## **DDL :**

DROP DATABASE IF EXISTS car\_rental\_system;

CREATE DATABASE car\_rental\_system;

USE car\_rental\_system;

CREATE TABLE admin (

id INT(10) PRIMARY KEY,

email VARCHAR(255) NOT NULL,

fname VARCHAR(30) NOT NULL,

lname VARCHAR(30) NOT NULL,

password VARCHAR(255) NOT NULL,

city VARCHAR(200) NOT NULL,

street VARCHAR(300) NOT NULL

);

CREATE TABLE car (

plate\_id INT(10) PRIMARY KEY,

model VARCHAR(100) NOT NULL,

color VARCHAR(100) NOT NULL,

brand VARCHAR(100) NOT NULL,

year INT(4) NOT NULL,

image VARCHAR(600) NOT NULL,

description VARCHAR(300) NOT NULL,

price\_per\_hour FLOAT(10, 2)

);

CREATE TABLE reserved\_cars(

plate\_id ,/INT(10) ,

start\_time DATE NOT NULL ,

return\_date DATE NOT NULL

);

```
CREATE TABLE rent (  
    rent_id INT(10) AUTO_INCREMENT PRIMARY KEY,  
    cssn VARCHAR(30),  
    plate_id INT(10),  
    total_hours INT(5) NOT NULL,  
    start_date DATE NOT NULL,  
    return_date DATE NOT NULL,  
    total_price FLOAT(10, 2) NOT NULL  
);
```

```
CREATE TABLE rent_contact (  
    rent_id INT(10) PRIMARY KEY,  
    phone_number1 VARCHAR(12) NOT NULL,  
    phone_number2 VARCHAR(12)  
);
```

```
CREATE TABLE customer (  
    cssn VARCHAR(30) PRIMARY KEY,  
    email VARCHAR(255) NOT NULL UNIQUE,  
    fname VARCHAR(255) NOT NULL,  
    lname VARCHAR(255) NOT NULL,  
    cpass VARCHAR(255) NOT NULL,  
    bdate DATE NOT NULL,  
    total_rent INT(4) NOT NULL  
);
```

```
CREATE TABLE rent_address(  
    rent_id INT(10),  
    address_id INT(10)  
);
```

```
CREATE TABLE customer_address (  
    address_id INT(10) AUTO_INCREMENT PRIMARY KEY,  
    cssn VARCHAR(30),  
    country VARCHAR(30) NOT NULL,  
    city VARCHAR(200) NOT NULL,  
    street VARCHAR(300) NOT NULL  
);  
  
ALTER TABLE rent_address ADD CONSTRAINT fk_rent_address_rent_id FOREIGN KEY  
(rent_id) REFERENCES rent (rent_id) ON UPDATE CASCADE ON DELETE CASCADE;  
  
ALTER TABLE rent_address ADD CONSTRAINT fk_rent_address_address_id FOREIGN KEY  
(address_id) REFERENCES customer_address (address_id) ON UPDATE CASCADE ON  
DELETE CASCADE;  
  
ALTER TABLE reserved_cars ADD CONSTRAINT fk_reserved_cars_plate_id FOREIGN KEY  
(plate_id) REFERENCES car (plate_id) ON UPDATE CASCADE ON DELETE CASCADE;  
  
ALTER TABLE rent ADD CONSTRAINT fk_rent_cssn FOREIGN KEY (cssn) REFERENCES  
customer (cssn) ON UPDATE CASCADE ON DELETE CASCADE;  
  
ALTER TABLE rent ADD CONSTRAINT fk_rent_plate_id FOREIGN KEY (plate_id)  
REFERENCES car (plate_id) ON UPDATE CASCADE ON DELETE CASCADE;  
  
ALTER TABLE customer_address ADD CONSTRAINT fk_customer_address_cssn FOREIGN  
KEY (cssn) REFERENCES customer (cssn) ON UPDATE CASCADE ON DELETE CASCADE;  
  
ALTER TABLE rent_contact ADD CONSTRAINT fk_rent_contact_rent_id FOREIGN KEY  
(rent_id) REFERENCES rent (rent_id) ON UPDATE CASCADE ON DELETE CASCADE;
```