# Car Rental System

# Home page:

Main menu provides access for customer to book a car or do a payment and for admin to generate reports.



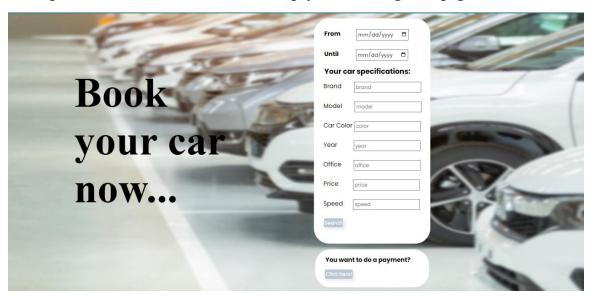
# Customer registration:

This page allows the customer to sign up for an account and validates input to make sure no duplicate accounts exist

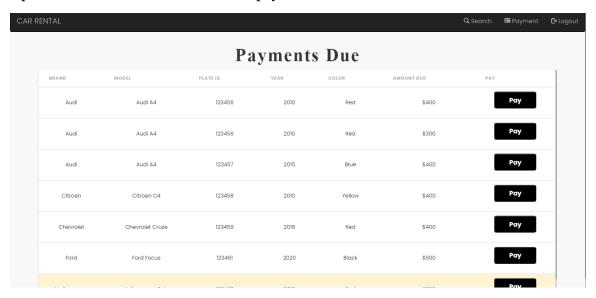


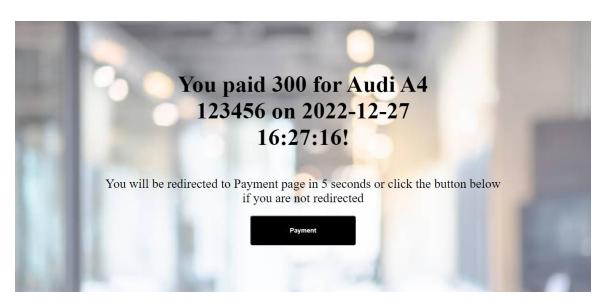
### Customer menu:

This page allows the customer to specify preferred options for desired car as well as the rental period. The customer can review due payments through this page as well.

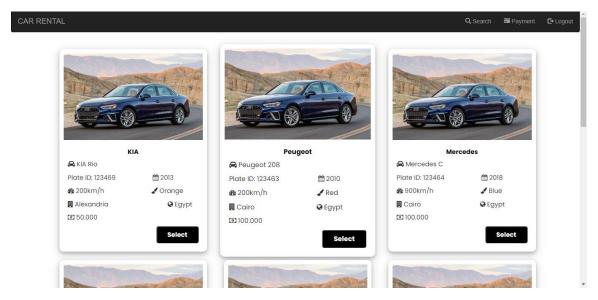


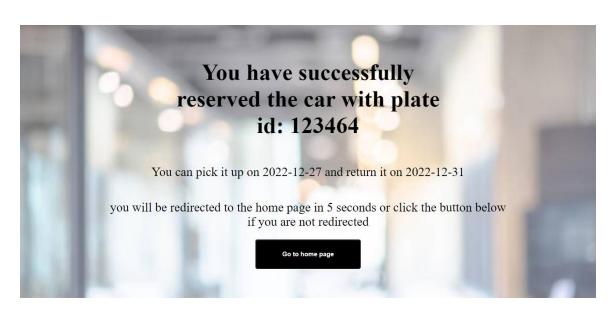
Upon click customer can view his due payments and resolve them.



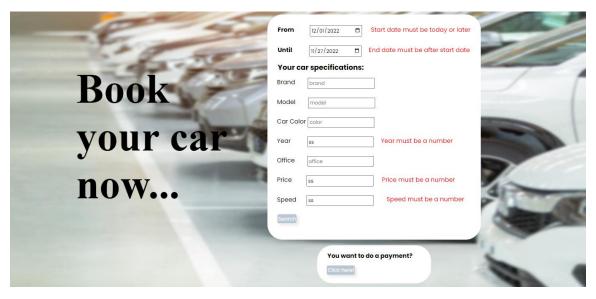


This page represents the cars that are available for rental according to the customer's specifications and rental period.



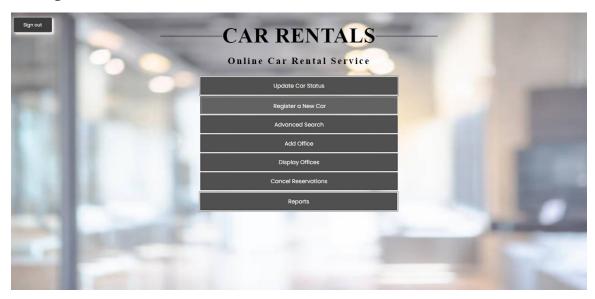


The systems prevents the customer from entering invalid periods or invalid inputs.

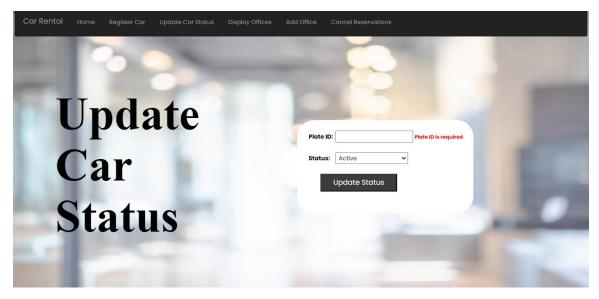


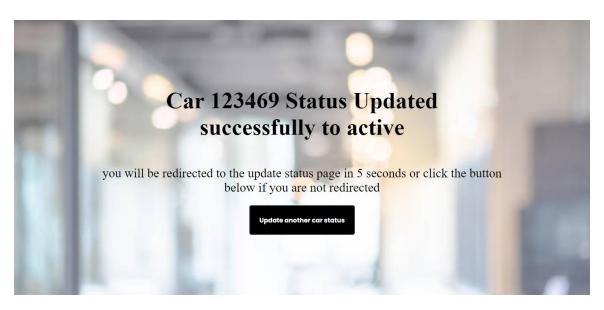
## Admin Menu:

After the admin logs in, he is able to generate several reports as well as adding new cars, updating any car's status, cancel an unpaid reservation, add a new office and display existing ones.



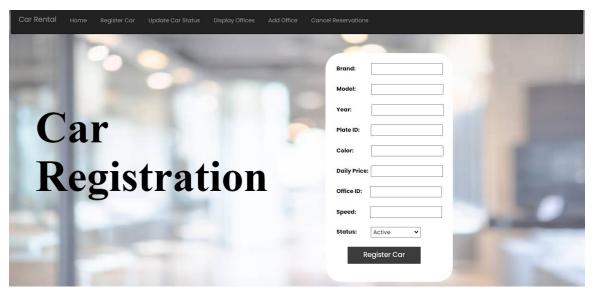
The admin enters the plate id of the desired car to update its status.



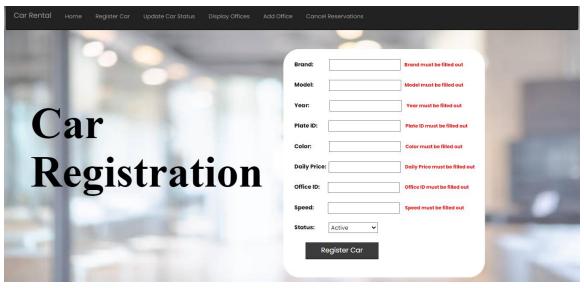


Specifying the correct information of car enables the admin to register a new car to the system.

The system prevents any invalid inputs, duplicated plate ids, non-existent office ids and doesn't allow him to skip any specifications as well.

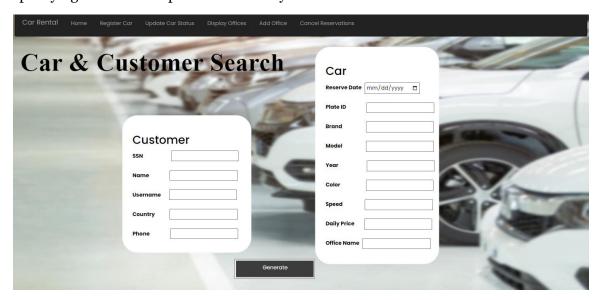


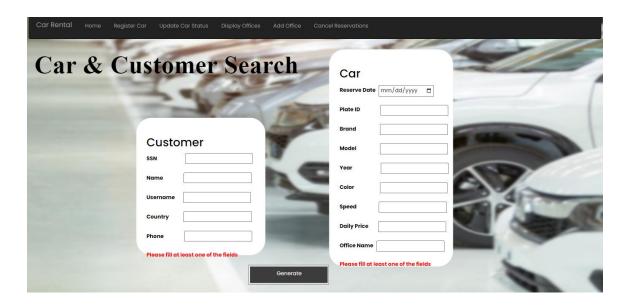
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# Car 159999 Registered successfully you will be redirected to the register car page in 5 seconds or click the button below if you are not redirected Register another car

Advanced searching page allows the admin to search any car or any customer by specifying at least one specification of any.

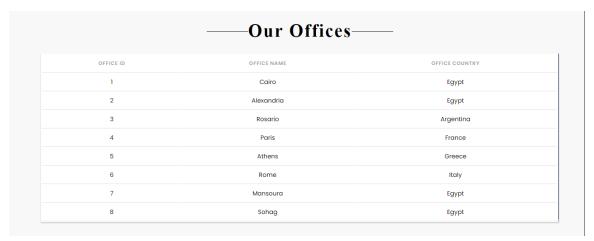




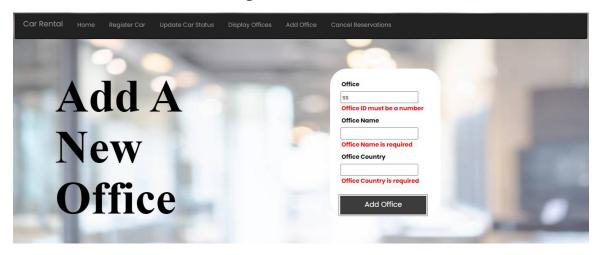
A table is used to represent the output.



Display Offices shows a table of all the offices of the car rental store.



Add Office allows user to add a new office and validates the input making sure that the office ID is numeric and non-existing

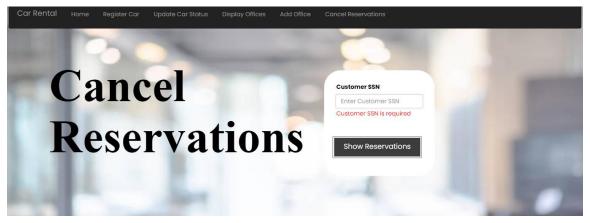




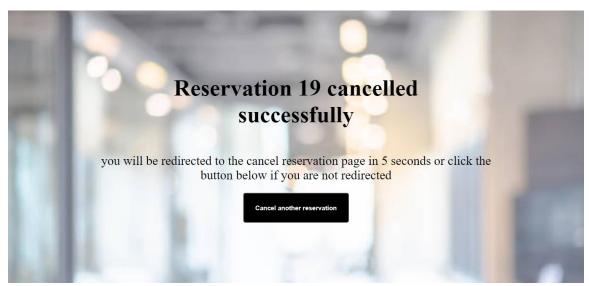
Nada Taher

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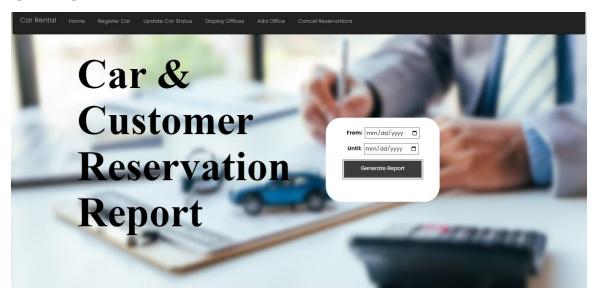
Cancel reservations allows the admin to search for a customer's reservations by searching for their SSN and displaying only the unpaid reservations.







In this page, the admin can search the reservations of all cars and customers within a specified period.



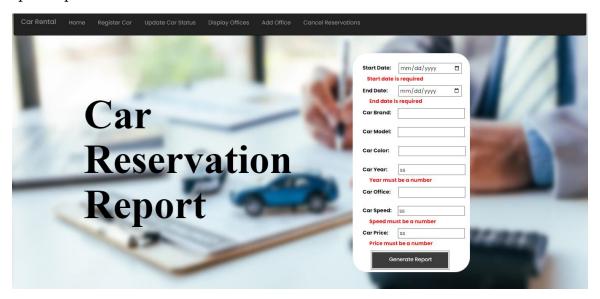
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A Table is used to represent the outcomes.

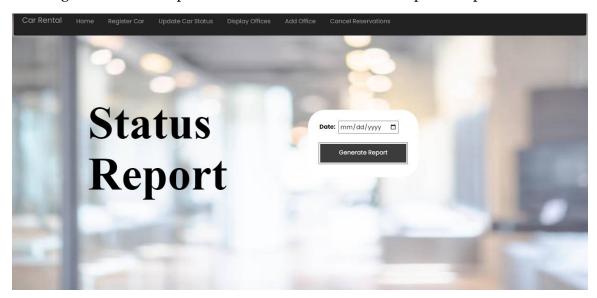
K	CSCIV	ation	SDCL	W CC	H 202.	<b>2-1 2</b>	-00	and 2	022.	-12-2	/
RESERVATION ID	RESERVE DATE	PICKUP DATE	RETURN DATE	PLATE ID	MODEL	COLOR	YEAR	BRAND	SPEED	DAILY PRICE	CUSTOMER
4	2022-12-20 14:11:14	2022-02-03	2022-02-05	123456	Audi A4	Red	2010	Audi	200	100.000	555
5	2022-12-20 14:12:26	2022-02-03	2022-02-05	123459	Chevrolet Cruze	Red	2018	Chevrolet	200	100.000	555
6	2022-12-20 14:13:25	2022-02-03	2022-02-05	123458	Citroen C4	Yellow	2010	Citroen	200	100.000	555
12	2022-12-22 21:40:50	2022-12-23	2022-12-26	123456	Audi A4	Red	2010	Audi	200	100.000	555
13	2022-12-23 13:11:38	2022-12-24	2022-12-30	123467	Volkswagen Polo	Red	2010	Volkswagen	200	100.000	555
14	2022-12-23 16:44:54	2022-12-15	2022-12-23	123467	Volkswagen Polo	Red	2010	Volkswagen	200	100.000	666
15	2022-12-23	2022-12-22	2022-12-23	123459	Chevrolet	Red	2018	Chevrolet	200	100.000	666

Admin can also search the reservations of a car based on any of its specifications within a specific period.





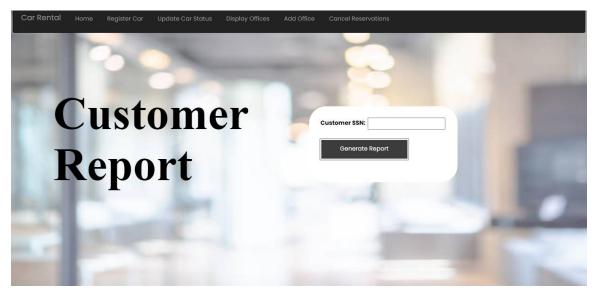
Entering a certain date represents the latest status of all cars up to the specified date.



	STATUS	REPORT	ΓFOR 2	2022-12-14—	
BRAND	MODEL	COLOR	PLATE ID	STATUS DATE	CAR STATUS
Ford	Ford Focus	Black	123461	2022-12-01 00:00:00	active
Nissan	Nissan Qashqai	White	123462	2022-12-01 00:00:00	out of service
Mercedes	Mercedes C	Blue	123464	2022-12-01 00:00:00	active
Audi	Audi A4	Blue	123457	2022-02-01 00:00:00	active
Citroen	Citroen C4	Yellow	123458	2022-02-01 00:00:00	active
Chevrolet	Chevrolet Cruze	Red	123459	2022-02-01 00:00:00	active
Renault	Renault Clio	Green	123460	2022-02-01 00:00:00	active
Peugeot	Peugeot 208	Red	123463	2022-02-01 00:00:00	active
BMW	BMW 3	Red	123465	2022-02-01 00:00:00	active
Volkswagen	Volkswagen Golf	Red	123466	2022-02-01 00:00:00	active
Volkswagen	Volkswagen Polo	Ped	123467	2022-02-01 00:00:00	active

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Customer reservations are represented upon entering his SSN.

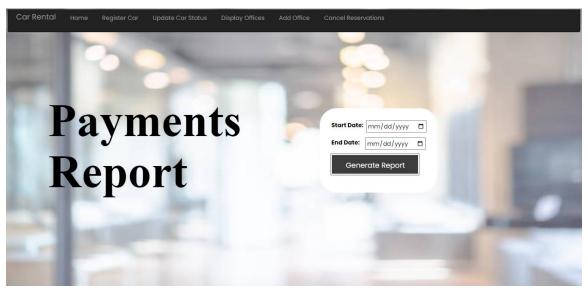


		1	Reserva	itions	101	maua			
CUSTOMER SSN	CUSTOMER NAME	CUSTOMER ADDRESS	CUSTOMER PHONE	CAR MODEL	CAR PLATE ID	RESERVATION ID	RESERVE DATE	PICKUP DATE	RETURN DATE
555	Nada	12 here	001110293788	Audi A4	123456	4	2022-12-20 14:11:14	2022-02-03	2022-02-05
555	Nada	12 here	001110293788	Audi A4	123456	12	2022-12-22 21:40:50	2022-12-23	2022-12-26
555	Nada	12 here	001110293788	Audi A4	123456	18	2022-12-27 11:36:04	2022-12-29	2022-12-31
555	Nada	12 here	001110293788	Audi A4	123457	17	2022-12-26 15:51:47	2022-12-26	2022-12-29
555	Nada	12 here	001110293788	Citroen C4	123458	6	2022-12-20 14:13:25	2022-02-03	2022-02-05
555	Nada	12 here	001110293788	Citroen C4	123458	19	2022-12-27 11:39:32	2022-12-28	2022-12-31
555	Nada	12 here	001110293788	Chevrolet	123459	5	2022-12-20	2022-02-03	2022-02-05

Nada Ehab 7062 Haguar Tarek 6878

Nada Taher 6876

Payments total based on office are represented within the period mentioned by the admin.



### Report for Daily payments between 2022-12-01 and 2022-12-27 OFFICE DATE TOTAL PAYMENTS 2022-12-13 Cairo 300.000 Cairo 2022-12-20 600.000 Cairo 2022-12-27 1000.000 Athens Cairo 2022-12-27 900.000 2022-12-27 500.000

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### Summary of implemented features:

### Implemented Features:

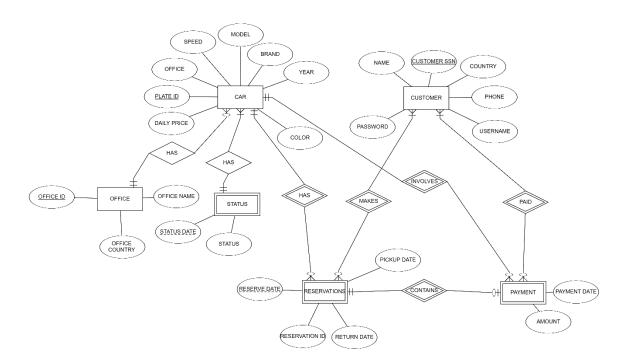
### Customer can:

- Sign up for a new account
- Sign into an existing account
- Search for desired car specs and reserve car for a specific period if available
- Pay for car after reservation

### Admin can:

- Register a new car
- Add a new office
- Display existing offices
- Cancel an unpaid reservation
- Update the status of an existing car
- Search for reservations using either car specs, customer information or reservation information.
- Generate reports for:
  - Reservations within a specified period including all car and customer information.
  - Reservations of any car within a specified period including all car information.
  - Status of all cars on a specific day.
  - All reservations of specific customer including customer information, car model and plate id.
  - Daily payments within specific period for each office.

# ER Diagram:



### DDL and foreign keys:

```
CREATE DATABASE car rental;
use car rental;
CREATE TABLE car(
model varchar (225),
daily price decimal (15,3),
plate id varchar(225),
color varchar (225),
'year' varchar(225),
brand varchar (225),
speed varchar(225),
office int,
PRIMARY KEY (plate id)
);
use car rental;
CREATE TABLE customer (
customer ssn varchar(225),
name varchar(225),
country varchar (225),
phone varchar(225) UNIQUE,
username varchar(225) UNIQUE,
email varchar (225) UNIQUE,
`password` varchar(225),
PRIMARY KEY(customer ssn)
);
use car rental;
CREATE TABLE reservation (
reserve date datetime,
pickup_date date,
return date date,
plate id varchar(225),
customer ssn varchar(225),
reservation id int UNIQUE AUTO INCREMENT,
PRIMARY KEY(customer ssn,plate id,reserve date)
);
use car rental;
CREATE TABLE status (
plate id varchar(225),
status date datetime,
car status varchar (225),
PRIMARY KEY(plate_id, car_status, status_date)
);
use car_rental;
CREATE TABLE payment (
customer ssn varchar(225),
amount decimal (15,3),
payment date datetime,
reserve date datetime,
plate id varchar(225),
PRIMARY KEY(customer ssn, plate id, reserve date)
```

```
);
use car rental;
CREATE TABLE office(
office id int,
office name varchar(225),
office country varchar(225),
PRIMARY KEY(office id)
ALTER table payment ADD FOREIGN KEY (plate id) REFERENCES car
(plate id);
ALTER table payment ADD FOREIGN KEY (customer ssn) REFERENCES
customer (customer ssn);
ALTER table payment ADD FOREIGN KEY (reserve date) REFERENCES
reservation (reserve date);
ALTER table reservation ADD FOREIGN KEY (plate id) REFERENCES car
(plate id);
ALTER table reservation ADD FOREIGN KEY (customer ssn) REFERENCES
customer (customer_ssn);
ALTER table `status` ADD FOREIGN KEY (plate id) REFERENCES car
(plate id);
ALTER table car ADD FOREIGN KEY (office) REFERENCES office
(office id);
```