# <u>Database Final Project</u> <u>Car Rental System</u>

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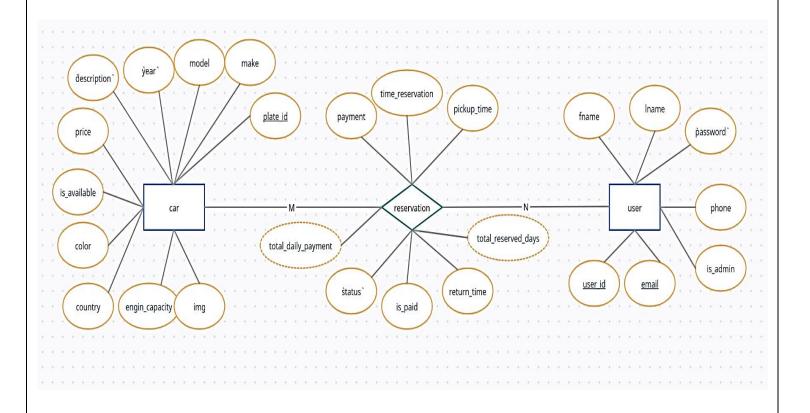
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<u>**ID**</u> : 6733

## 1-ER Diagram:



## 2-Mapping the ER diagram results in the following tables:

#### 1-user

user_id email		ail_	fname	lname		`password		phone		is_admin			
2- reservation													
plate_id	user_id	email	payment	time_re	eservat	ion	pickup_	time	return_ti	me :	Is_paid	`status`	
3- car													
plate_id	make m	odel `y	/ear` `desc	eription`	price	is_a	available	color	country	engi	in_capacit	ty img	

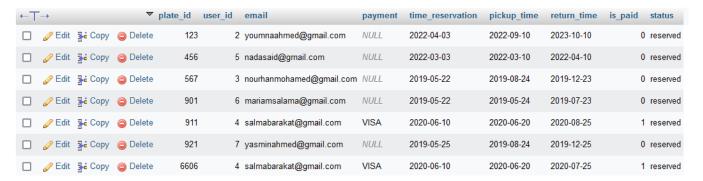
#### 3- Creating database in php my admin after adding DDL and DML



#### > car



#### > reservation

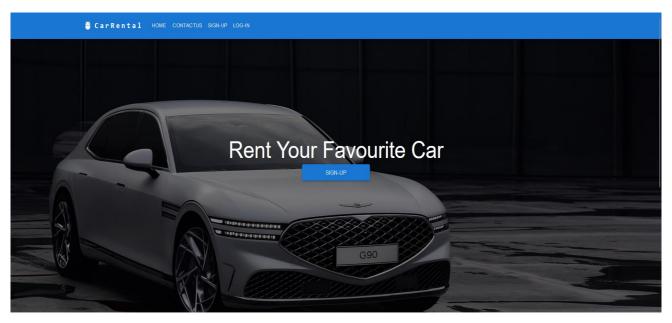


#### > user

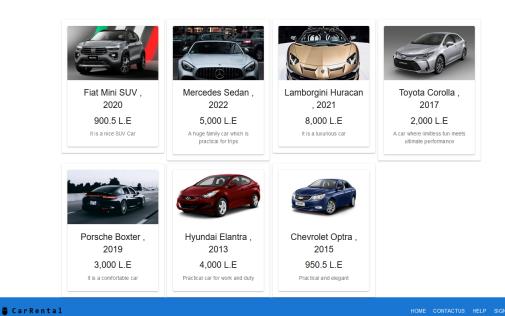


## 4- Our website pages

## **➤** Home page



Some of our cars



4

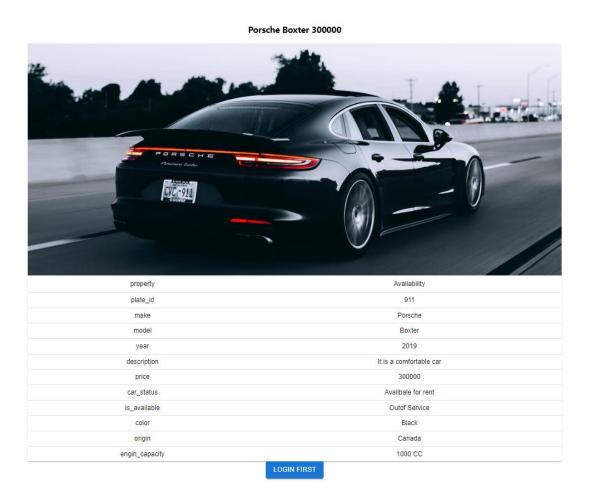
It views some of the cars on the website in the shape of cards each has an image of the car, its price, make, model, year as well as the description of the car and its status.

#### It has the navigation bar that can redirect to the following pages:

- 1.Contact us
- 2.Help
- 3.sign up

## > Car Information Page

If any card from the above page was selected it will display the following page:

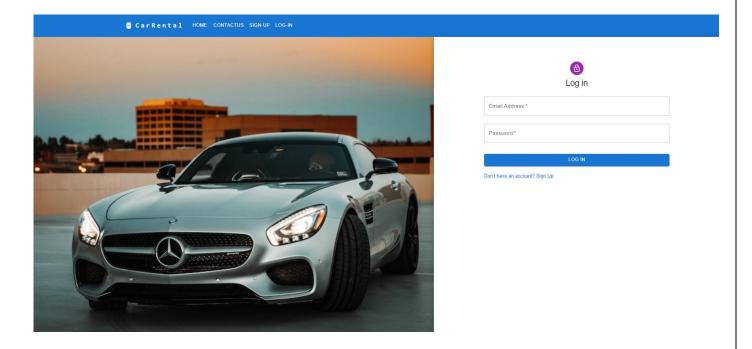


- 1. It displays the car's information which are:
  - plate\_id
  - make
  - model
  - year
  - description
  - price
  - car\_status
  - is\_available
  - color
  - origin
  - engin\_copacity
- 2. Website surfer cannot reserve the car at this stage because he is still not logged in, the button "login first" would redirect the user to the login page.

#### The status could be one of the following options:

- 1.**Reserved:** which indicates that the car is requested by a client but no payment took place yet.
- 2. **Rented:** which indicates that the car is reserved by a customer, and he paid for it.
- 3. Available for rent: if it is neither of the previous 2 options.

#### > login page



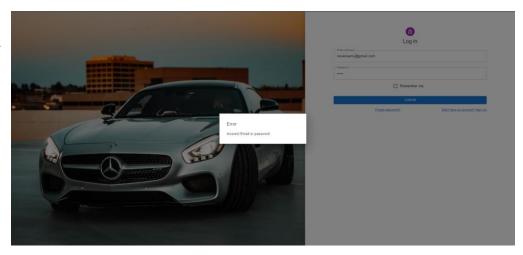
This page enables users and the admin to login to their account.

The user enters his email and password and on clicking log in button it would be validated that the data exists in database.

#### If the entered data is correct:

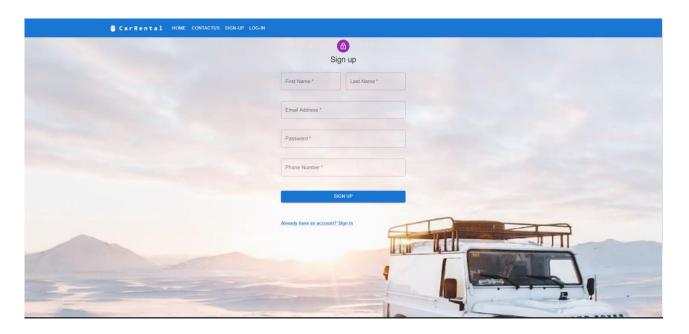
the is\_admin field is checked in the database if this field is equal to zero then it is a customer and he would be directed to **customer search page**, but if the value was one then he would be directed to **admin home page**.

➤ Alert appears if entered email or password are incorrect



#### **➤** User pages

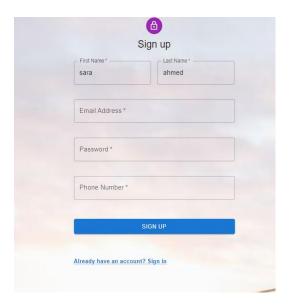
#### 1-Sign up

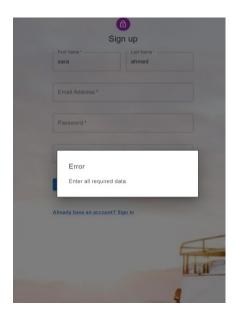


This page is used to register a new user and cannot be used to add a new admin, because the default value in database for is\_admin is to be false and there is only one admin for the system which is added in database directly.

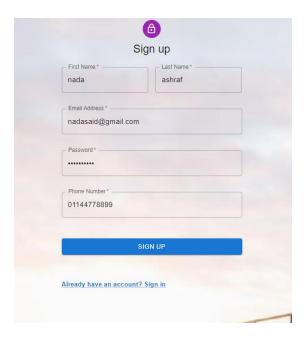
- To create a new account the following fields are required:
  - 1-First name
  - 2-Last name
  - 3-Email
  - 4-Password
  - 5-Phone number

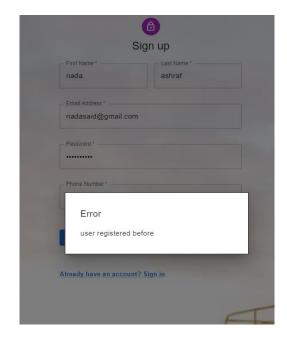
- on clicking on sign up button:
- 1. It would be validated that all data fields are filled



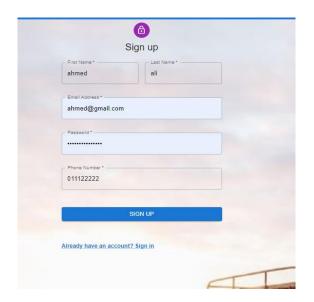


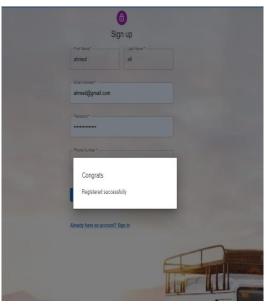
2. It will check that no user exists in the database who is registered with the entered email





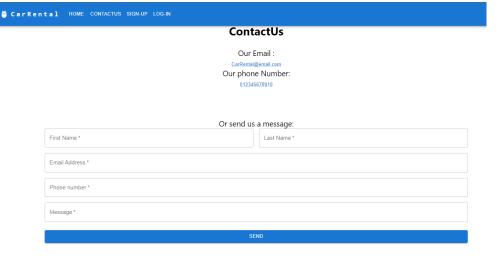
If all validation tests are passed, success message appears, and the user would be saved in the database







#### 2.Contact us:

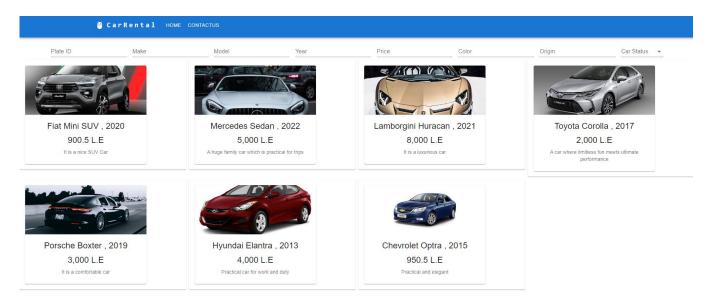


- It displays the car rental company's contact info: email and phone number.
- It enables customers to send a message by requesting the following data from the user: customer's first name, last name, email, and phone number as well as the request or message he wants to send.

#### 3.User search

It is the first page that appears after user login.

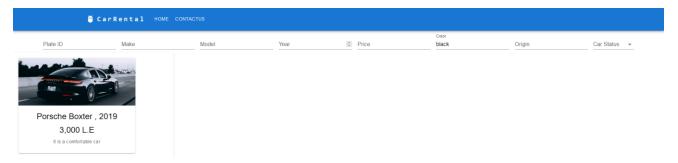
If all search fields are empty: cards of all cars available will appear on this page.



User can search for the car he needs he is allowed to enter the following search fields:

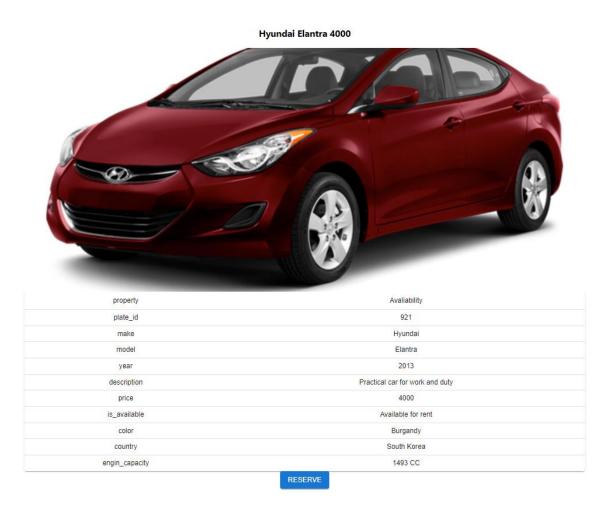
- 1.plate id
- 2.make
- 3.model
- 4.year
- 5.price
- 6.color
- 7.origin
- 8.car status

The user can enter 1 search field up to all 8 fields and the cars with all the values entered will be displayed



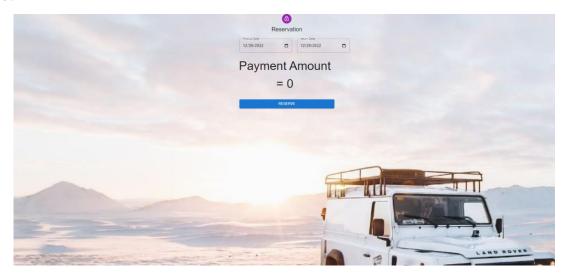
## 4.Car Info Page:

Since user is logged in now then the car info page would appear with the option to reserve the car



#### **5.Reserve page:**

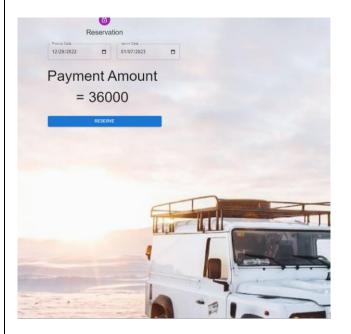
On clicking on reserve button in the previous page this page would appear asking to enter the duration in which user needs to reserve the car: pickup time, return time.

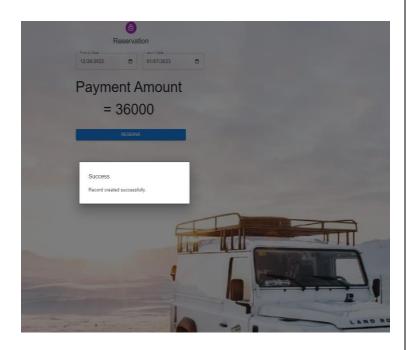


On adding the pickup and return date, the payment amount would be calculated as follows

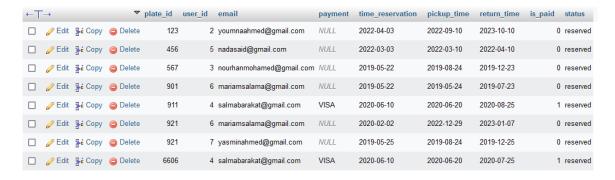
**First**: Total reserved days is calculated by following equation = return time – pickup time.

 $\textbf{Second}: Payment \ amount \ is \ calculated \ by = total \ reserved \ days* \ price \ per \ day$ 





#### Database after this step:

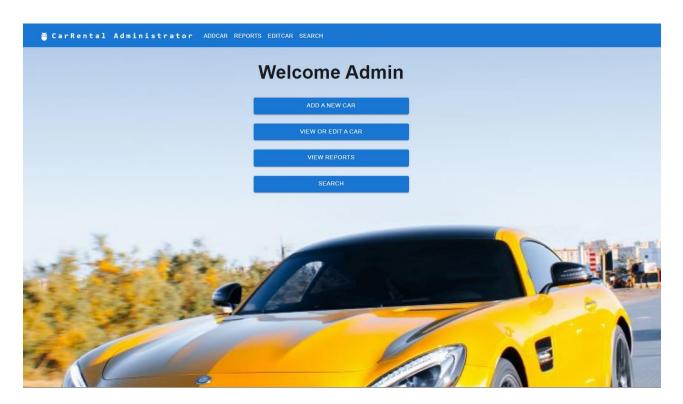


## > Admin pages

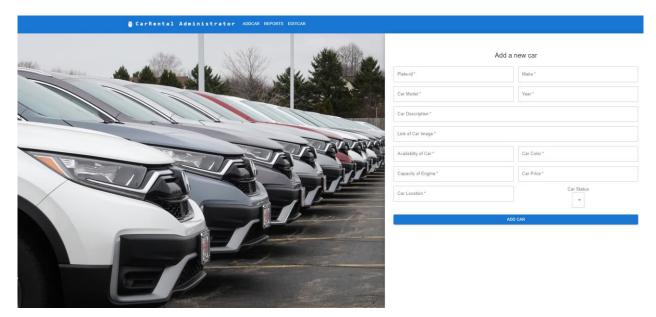
1- Admin home page

It views the options available for the admin:

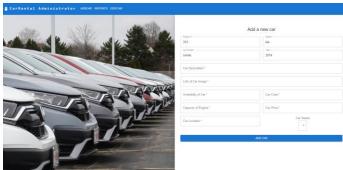
- 1.Add new car
- 2.Edit existing car
- 3. View reports

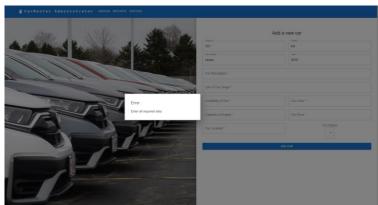


#### 1- Add new car page

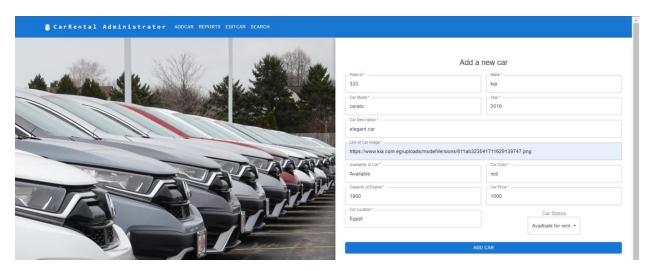


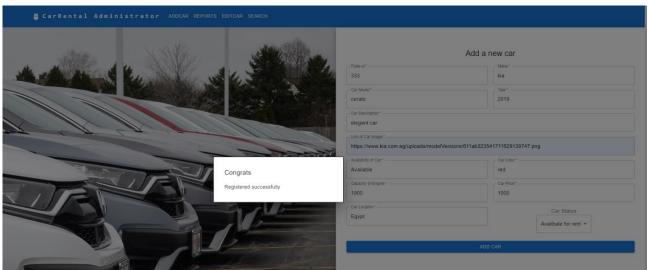
- Admin can add new car by entering all the following fields: plate\_id, make, model, year, description, price, car\_status, is\_available, color, car, location, engine\_capacity, image link.
- o If some data fields are empty, error occurs.

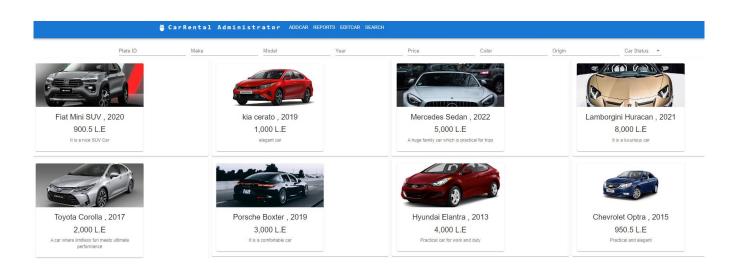




o Since all information is stated. Therefore, car will be added successfully.

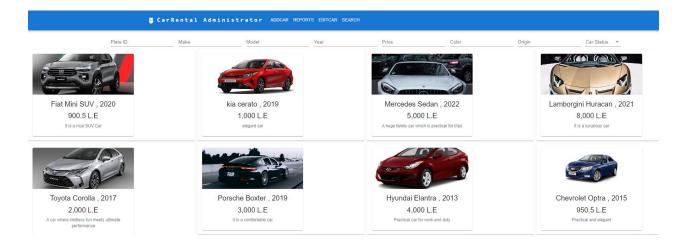






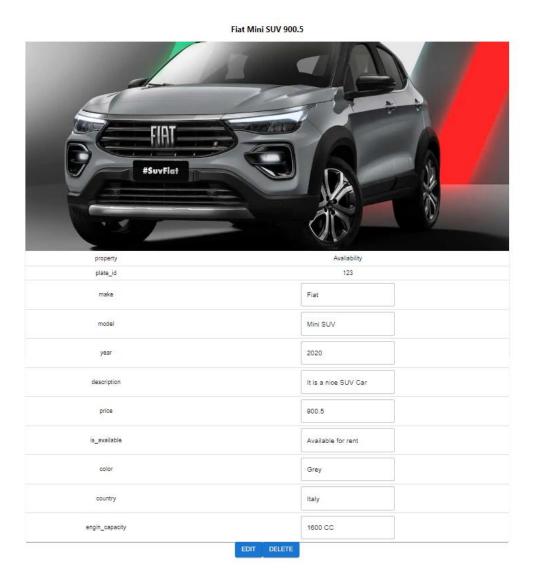


#### 2. Edit cars + admin search page



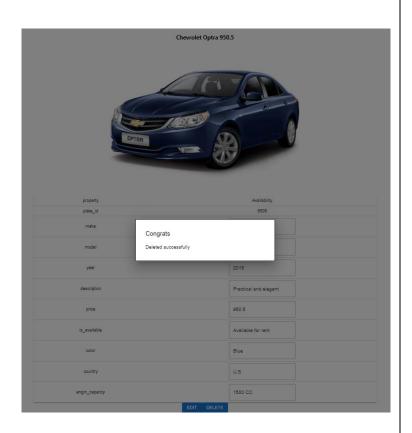
- It is a page that enables the admin to search for any car by entering from 1 up to all search fields which are:
  - 1- plate id
  - 2- make
  - 3- model
  - 4- year
  - 5- price
  - 6- color
  - 7- origin
  - 8- car status

• Admin can choose any card from the search results or all cars if no data entered in search fields to be able to edit or delete a car.

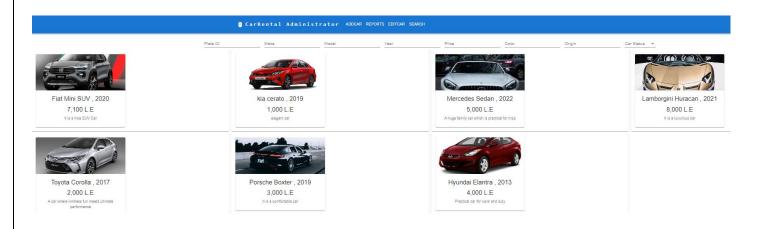


- o The following text fields are surrounded by text box which admin can edit the values and then click "edit" button to update the new data in the database.
- Second option is that the admin can choose to delete the car completely from database.





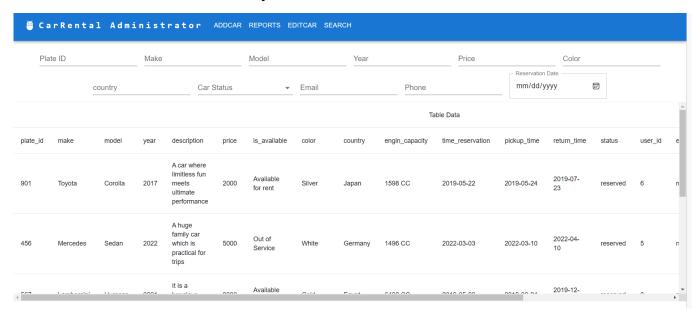




o Chevrolet car deleted successfully.

#### 5- Admin search page:

- o It allows the admin to enter from 1 up to all search fields.
- o Car info: plate\_id, make, model, year, price, color, country, and car status.
- o Customer info: email, phone.
- Reservation info: reservation date
- If admin searches using car info only it would show the cars with these properties and the info of the customer if this car was reserved else, it would show customer info with nulls.
- If admin searches using customer info only it would show the customers with this info and the info of the cars if he reserved else if this else, it would show car info with nulls.
- If admin enters car info and customer info the data must be included in a row in the database.
- o Else it would not show any results.



- o It shows all cars and to display them we can use up-down or left-right scroll.
- If we specified specific properties -> number of records in table starts to decrease according to entered information.

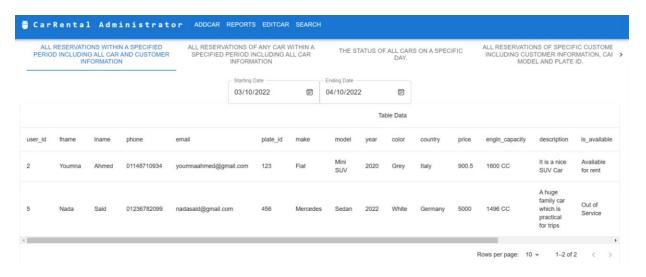
#### 5- Reports page

#### > It has 5 tabs each for a certain report:

- 1- All reservations within a specified period including all car and customer information.
- 2- All reservations of any car within a specified period including all car information.
- 3- The status of all cars on a specific day.
- 4- All reservations of specific customer including customer information, car model and plate id.
- **6-** Daily payments within specific period.



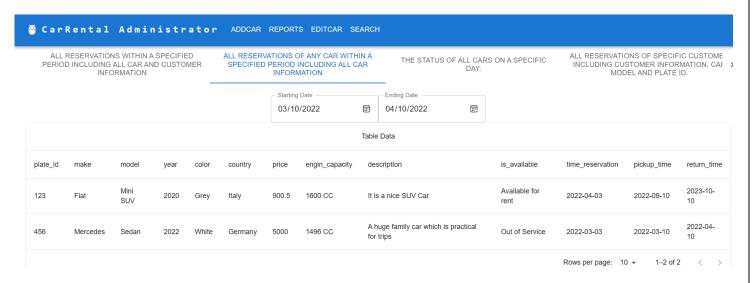
#### Query 1:



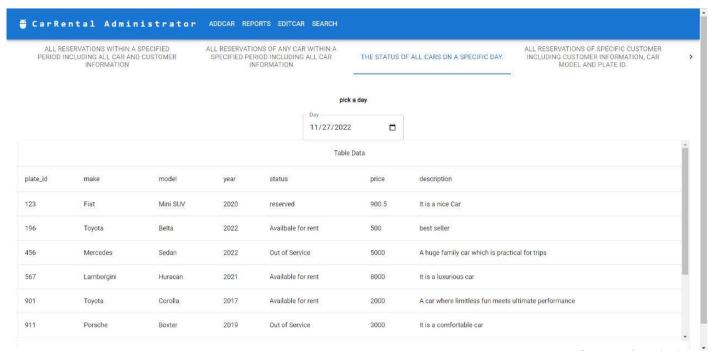
- o The specified tab is the one colored in blue.
- The admin enters the starting date and ending date of the period that he wants to display the reservations within it including customer and car information.

#### ➤ Query 2:

o The admin enters the starting date and ending date of the period that he wants to display the reservations within it including all car information.

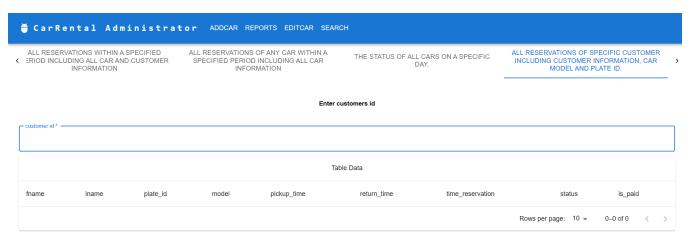


#### **> Query 3:**

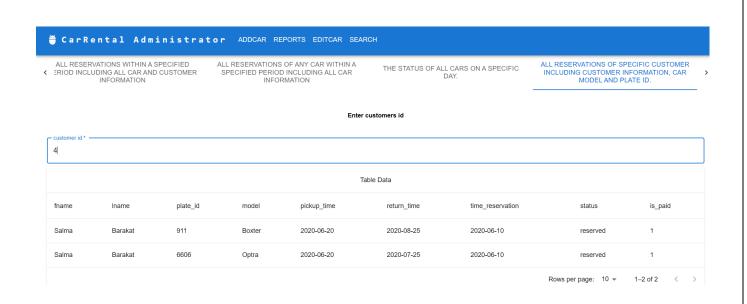


 Takes a specific day and returns the status of all cars on this day whether reserved or available.

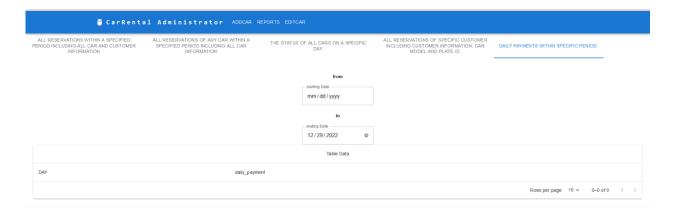
#### **> Query 4:**



 Takes a customer ID and returns all reservations made by this customer including specified customer and car information.



## **> Query 5:**



o The admin enters the starting date and ending date of the period that he wants to display the total daily payments.

