ERD :

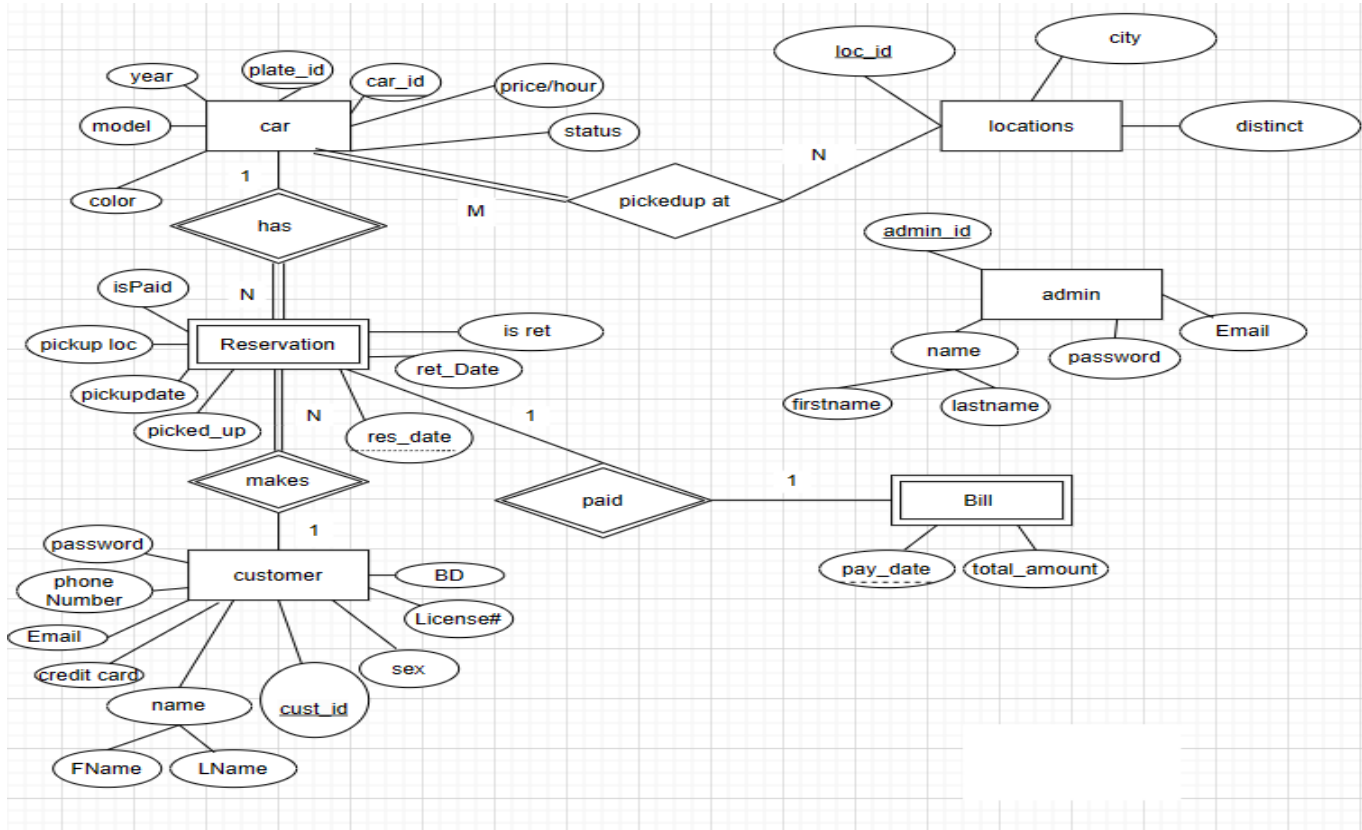
DDL:

```
-- Create Car Rental System Database
create database Car_Rental_System;
use Car_Rental_System;
-- Create Table Car
create table Car(
    car_id INT AUTO_INCREMENT,
    plate_id VARCHAR(10) NOT NULL UNIQUE,
    model VARCHAR(225),
    year YEAR,
    color VARCHAR(225),
    status VARCHAR(225),
    price_per_hour DECIMAL(10,2),
    CONSTRAINT PRIMARY KEY (car_id)
);
-- Create Table locations
create table locations(
    loc_id int AUTO_INCREMENT,
    city varchar(225) Not NULL,
    district varchar(225) Not NULL,
    CONSTRAINT PRIMARY KEY (loc_id)
);
```

```sql
-- Create Table Pickup_Locations
create table Pickup_Locations(
    car_id INT,
    pickup_loc INT,
    CONSTRAINT PRIMARY KEY (car_id, pickup_loc),
    FOREIGN KEY (pickup_loc) REFERENCES locations(loc_id)

);
-- Create Table Reservation
create table Reservation(
    car_id int,
    cust_id int,
    res_date datetime,
    pickup_date datetime,
    picked_up boolean,
    pickup_loc int,
    is_ret boolean,
    ret_date datetime,
    isPaid boolean,
    CONSTRAINT PRIMARY KEY (car_id, cust_id, res_date)
);
-- Create Table Customer
create table Customer(
    cust_id int AUTO_INCREMENT,
    last_name varchar(225) NOT NULL,
    first_name varchar(225),
    sex varchar(6),
    driving_license_no varchar(225) NOT NULL UNIQUE,
    email varchar(225),
    password varchar(225),
    birth_date date,
    phone_no varchar(225) UNIQUE,
    card_no varchar(225) UNIQUE,
    CONSTRAINT PRIMARY KEY (cust_id)
);

-- Create Table Admin
create table Admin(
    admin_id int AUTO_INCREMENT,
    last_name varchar(225) NOT NULL,
    first_name varchar(225),
    email varchar(225),
    password varchar(225),
    CONSTRAINT PRIMARY KEY (admin_id)
);

-- Create Table Payment
create table Payment(
```

```sql
    car_id int,
    cust_id int,
    res_date datetime,
    pay_date datetime,
    total_amount decimal(10,2),
    CONSTRAINT PRIMARY KEY (car_id, cust_id, res_date, pay_date)
);

-- 1. Add foreign key car_id in the Pickup_Locations table
ALTER TABLE Pickup_Locations
ADD CONSTRAINT FK_CAR_PICK FOREIGN KEY (car_id) REFERENCES CAR(car_id);

-- 2. Add foreign key (car_id, pickup_loc) in the Reservation table
ALTER TABLE Reservation
ADD CONSTRAINT FK_CAR_PICK_RES FOREIGN KEY (car_id, pickup_loc) REFERENCES
Pickup_Locations(car_id, pickup_loc);

-- 3. Add foreign key cust_id in the Reservation table
ALTER TABLE Reservation
ADD CONSTRAINT FK_CUST_RES FOREIGN KEY (cust_id) REFERENCES CUSTOMER(cust_id);

-- 4. Add foreign key (car_id,cust_id,res_date) in the Payment table
ALTER TABLE Payment
ADD CONSTRAINT FK_RES_PAY FOREIGN KEY (car_id, cust_id, res_date) REFERENCES
Reservation(car_id, cust_id, res_date);
```
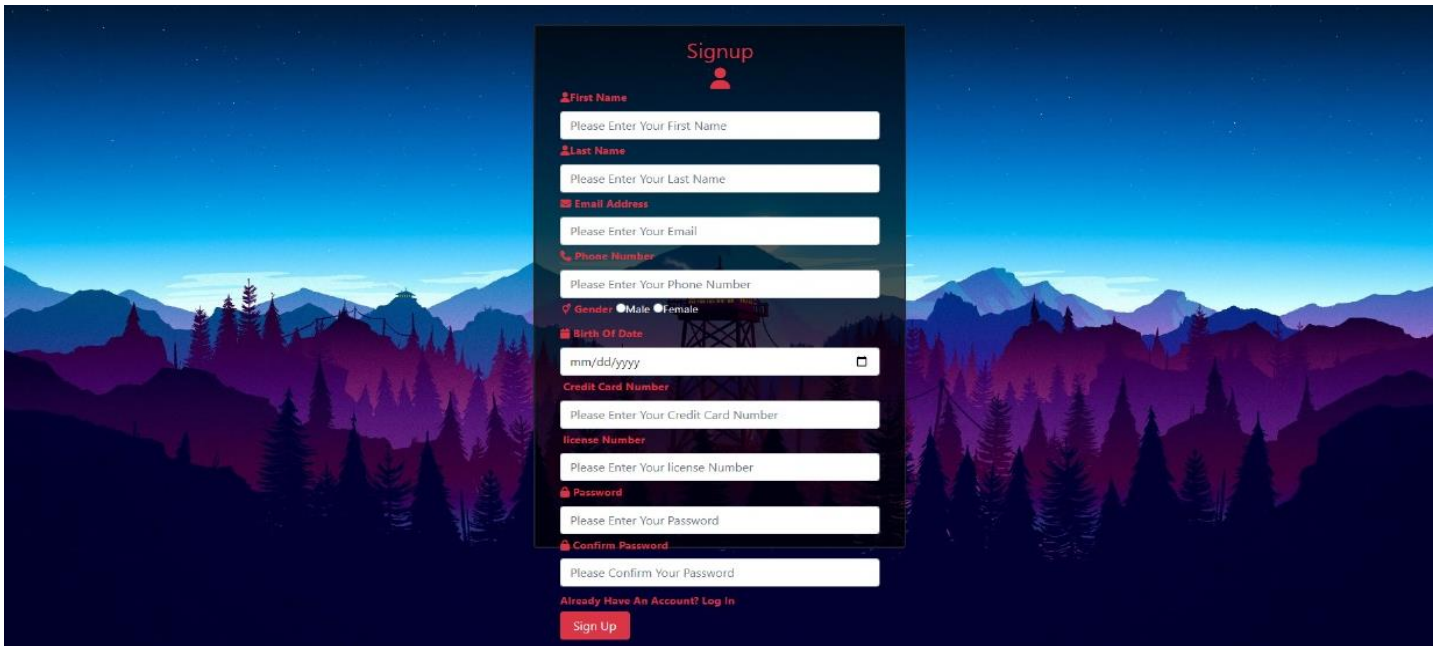
Home page :

- Home page included login & sign up buttons to go either to login or to signup
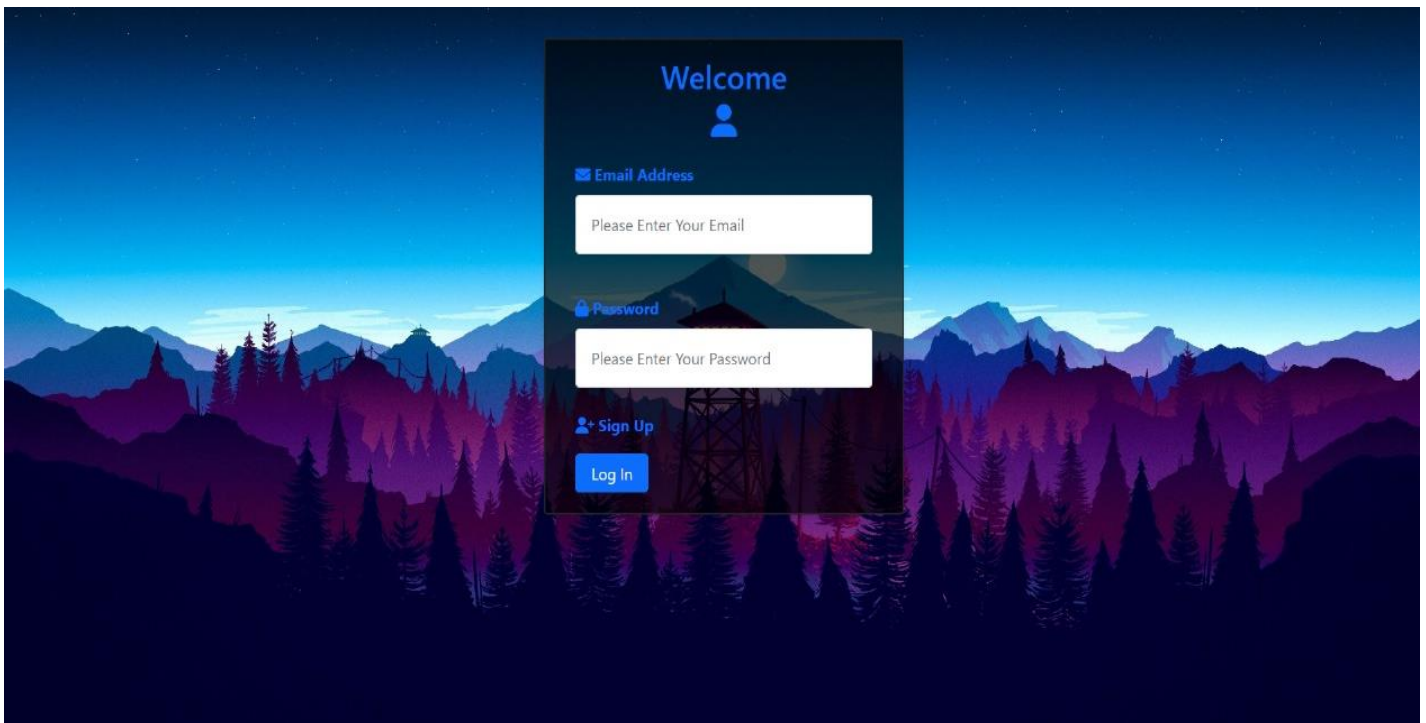
For User :

Sign up Page :

Login page:

- To login insert your email & password

Search page :

- Search the available cars by any of the car specs according to their needs.
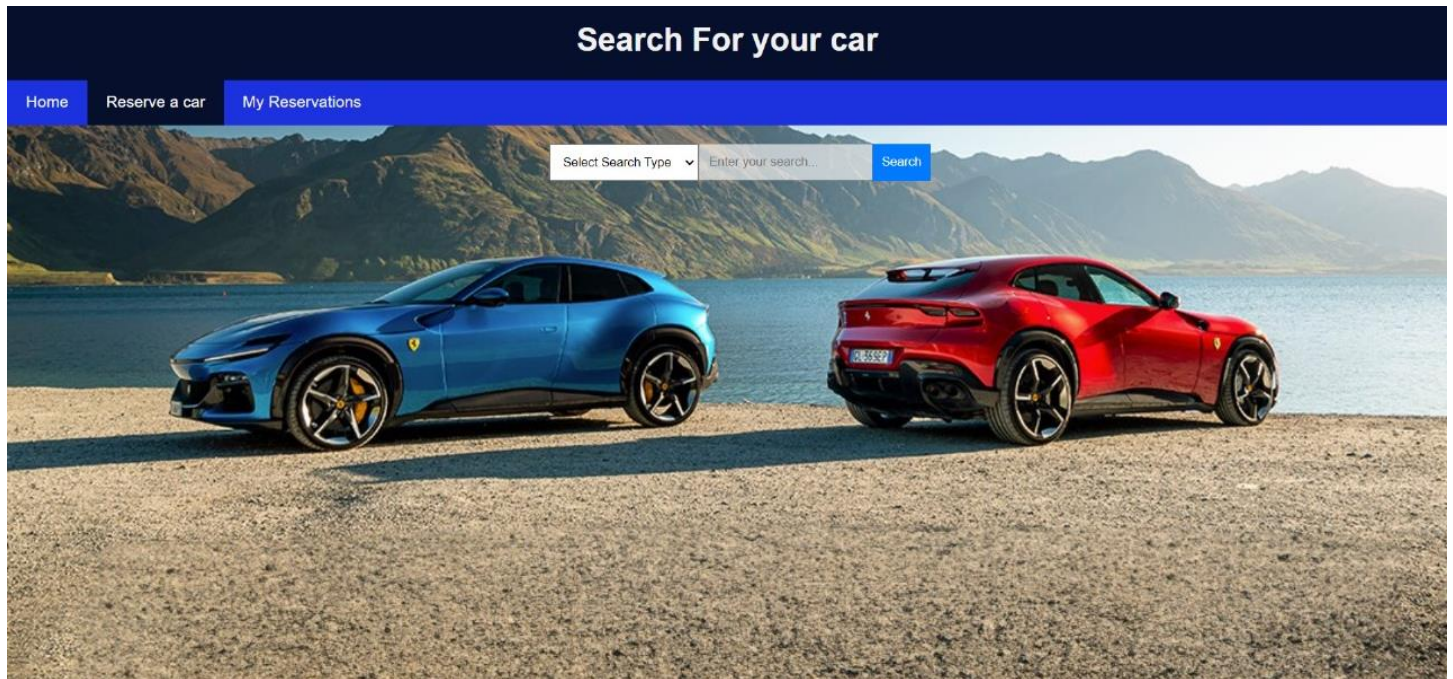
Output for search page :
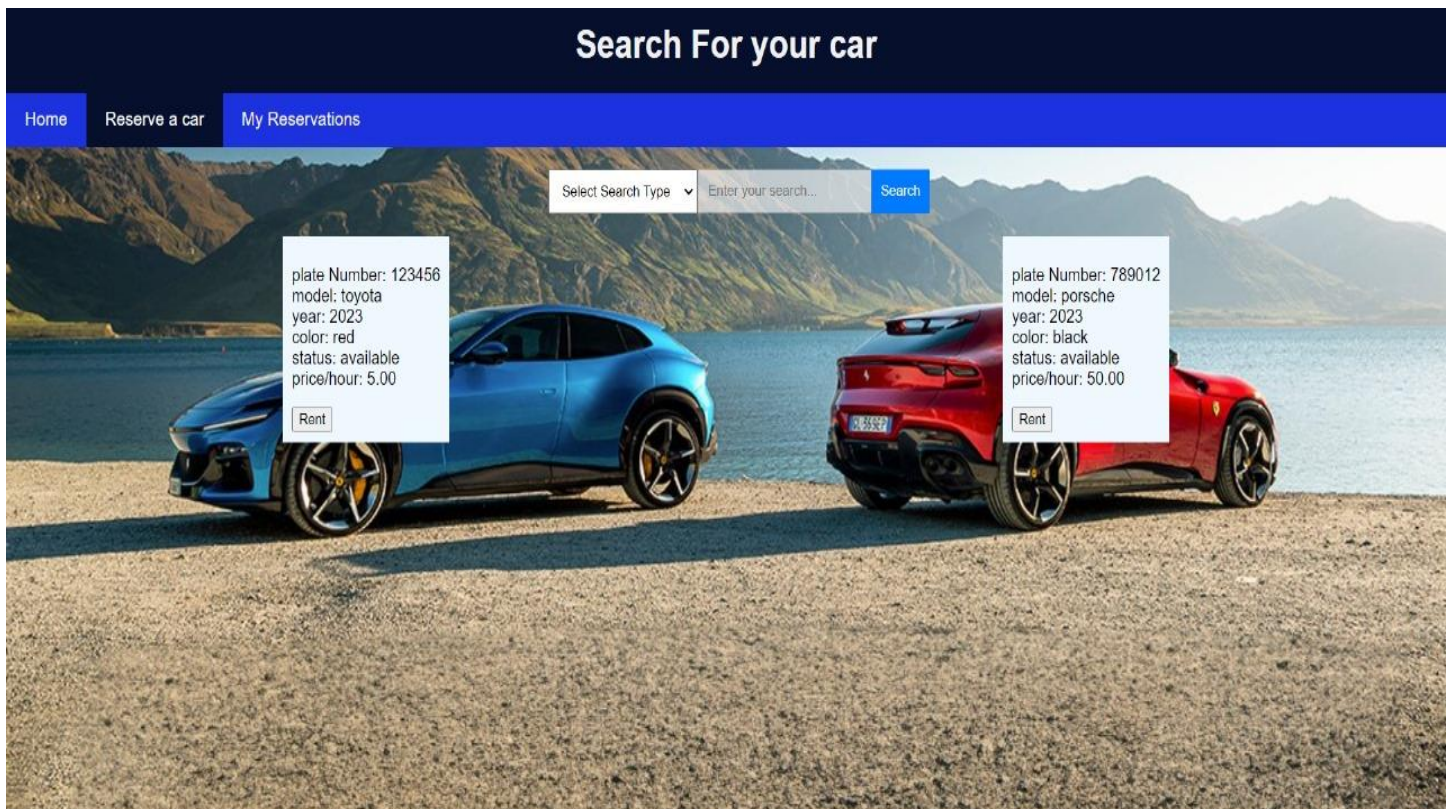
PickUpLoc :

- To choose location to pick up a car from it .
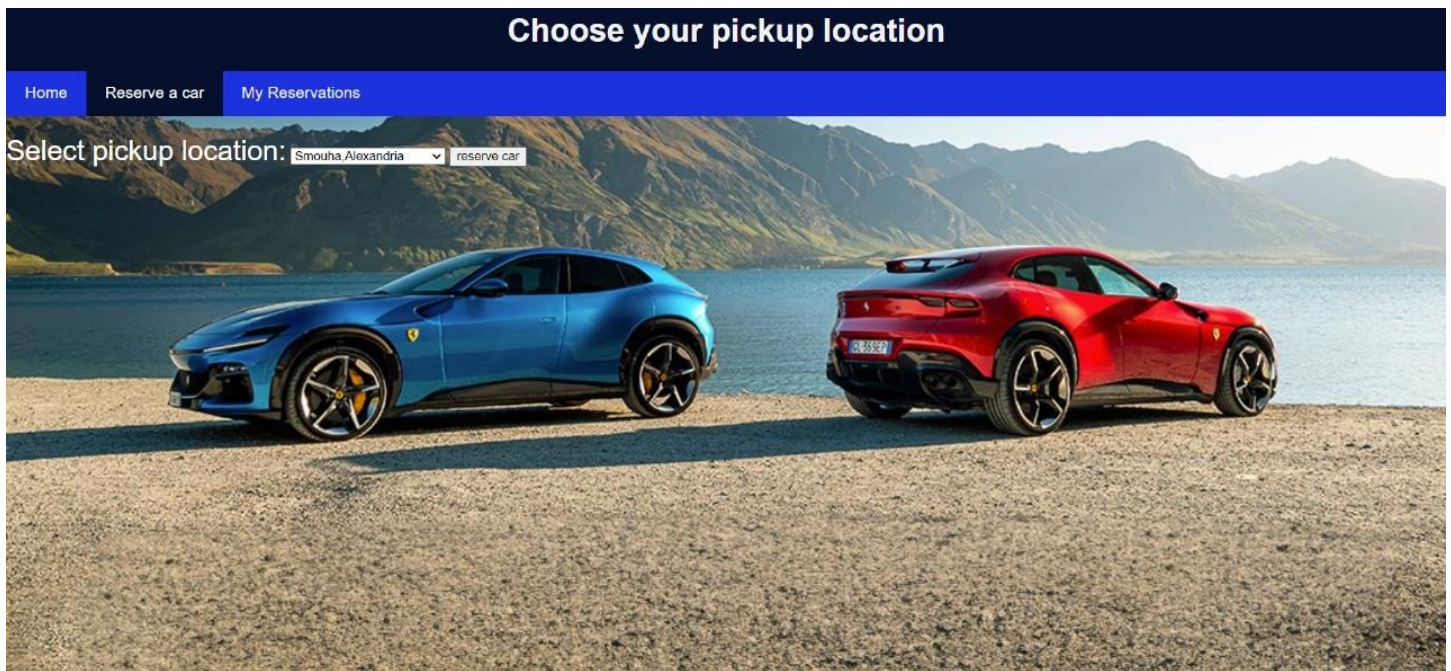
- Reserve car button : it calls rent.php to add reservation to database .
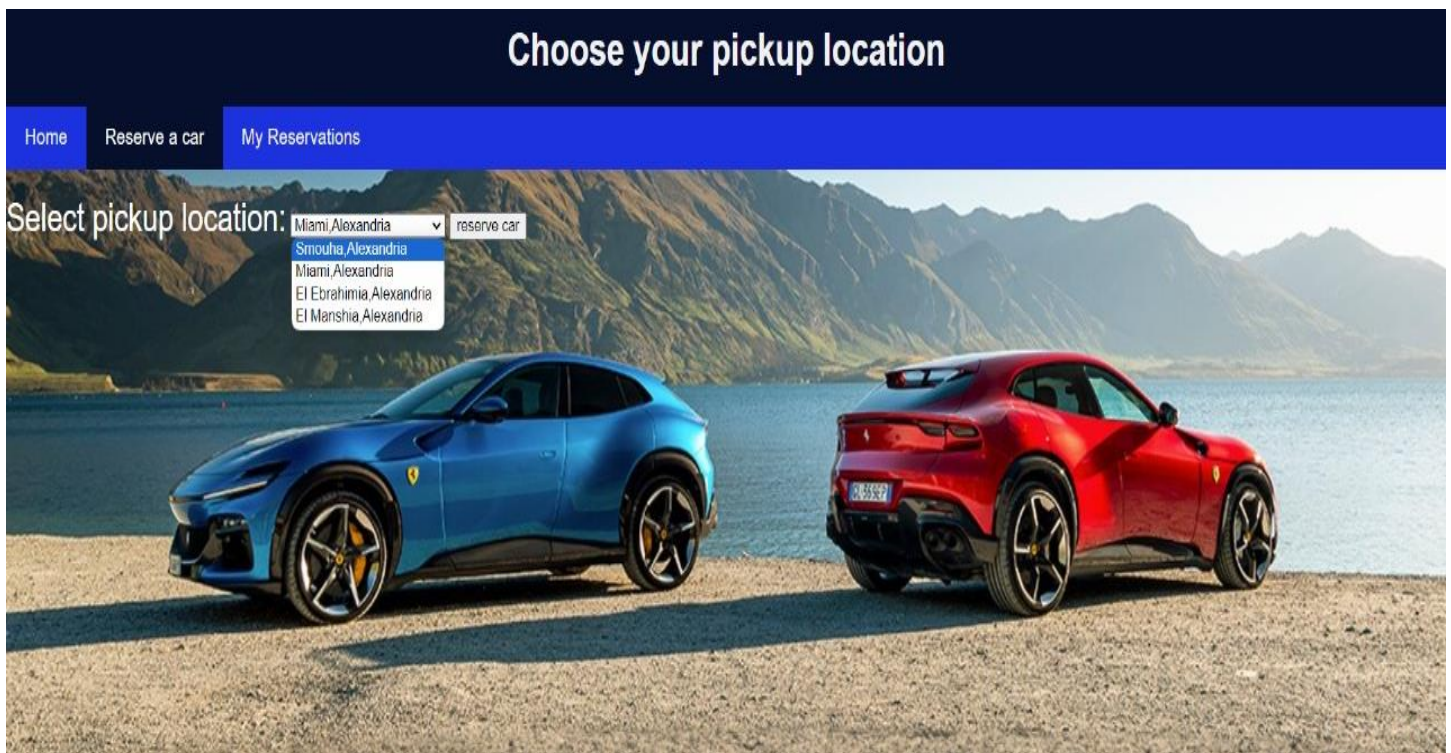
Reservations page :

- Every reservations which are not paid yet .

- Pay button is disabled when car is not return .
- When it became returned , this button will be enabled and the car will be paid by pay.php

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For admin :

Login page :
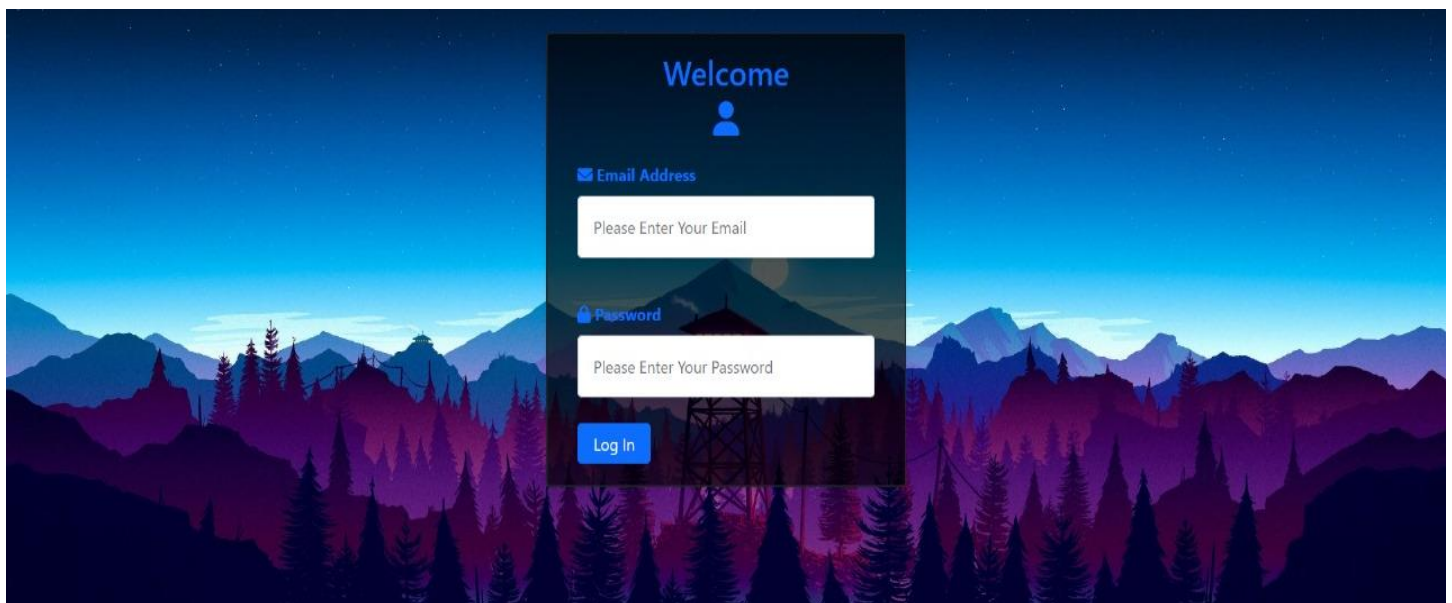
Home page :
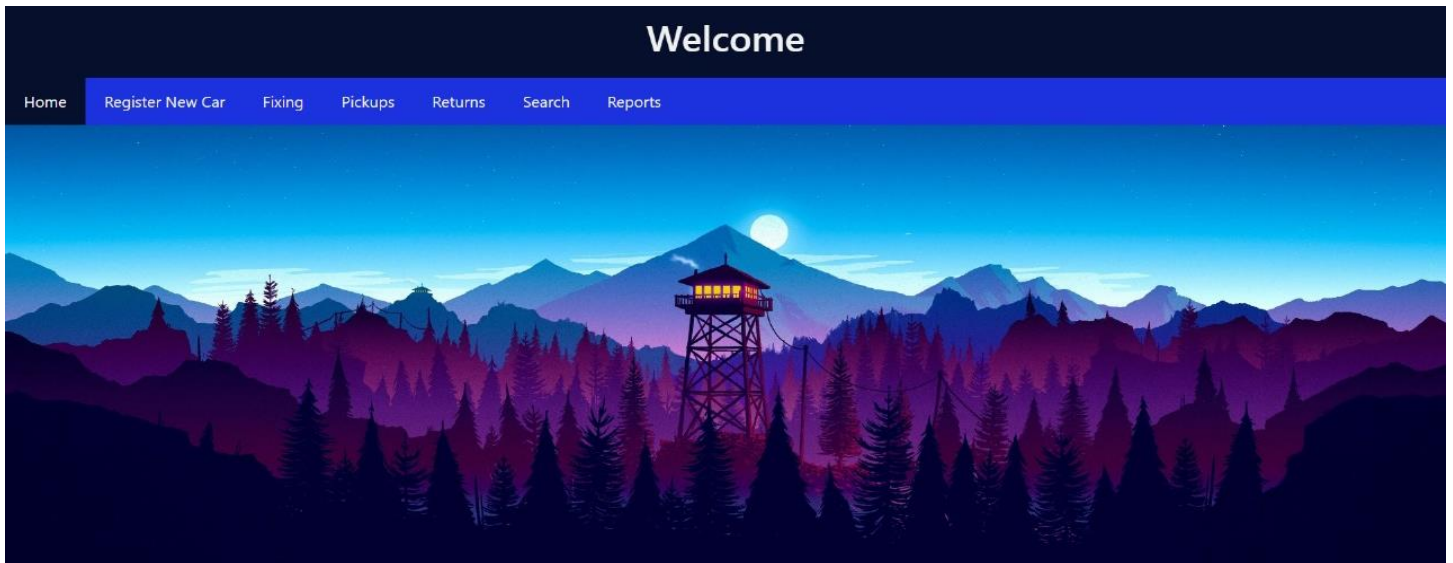
Register new car:

- to register new car please enter plate id , car model , year , color & car price/hour .
- Then click on add car button .

Fixing page :

- fix.php & fix_aux.php : enable admin to make a car out of service for 1 second then make it available after 1 second .

Fixing

| Home | Register New Car | Fixing | Pickups | Returns | Search | Reports |

car ID	plate ID	model	year	color	status	price/hour	needs fixing
2	234567	kia	2024	blue	out of service	5.00 $	Fixing Done
3	345678	BMW	2022	black	available	15.00 $	Needs Fixing
4	456789	Audi	2020	grey	available	20.00 $	Needs Fixing
6	678901	Honda	2021	blue	out of service	10.00 $	Fixing Done
7	789012	porsche	2023	black	available	50.00 $	Needs Fixing
8	890123	Chevrolet	2018	grey	available	15.00 $	Needs Fixing
9	901234	Fiat	2021	red	available	5.00 $	Needs Fixing
10	012345	Hyundai	2020	blue	out of service	5.00 $	Fixing Done
11	135791	kia	2010	black	available	5.00 $	Needs Fixing
12	246802	Honda	2022	grey	available	5.00 $	Needs Fixing

Pickups page :

- pickup.php w pickp_aux.php : enable admin to update DB for reserved car but now it is pickedup

Pickups

| Home | Register New Car | Fixing | Pickups | Returns | Search | Reports |

car ID	plate ID	model	color	price/hour	cust ID	res date	pick up loc	pickedUp
1	123456	toyota	red	5.00 $	3	2024-01-02 05:57:17	2	picked up
5	567890	Ford	red	25.00 $	3	2024-01-02 05:57:37	1	picked up

Return page :

- return.php w return_aux.php : enable admin to update DB for returning car .

Returns

car ID	plate ID	model	color	price/hour	cust ID	res date	pick up loc	pick up date	returned
1	123456	toyota	red	5.00 $	3	2024-01-02 05:57:17	2	2024-01-02 06:11:33	returned
5	567890	Ford	red	25.00 $	3	2024-01-02 05:57:37	1		returned
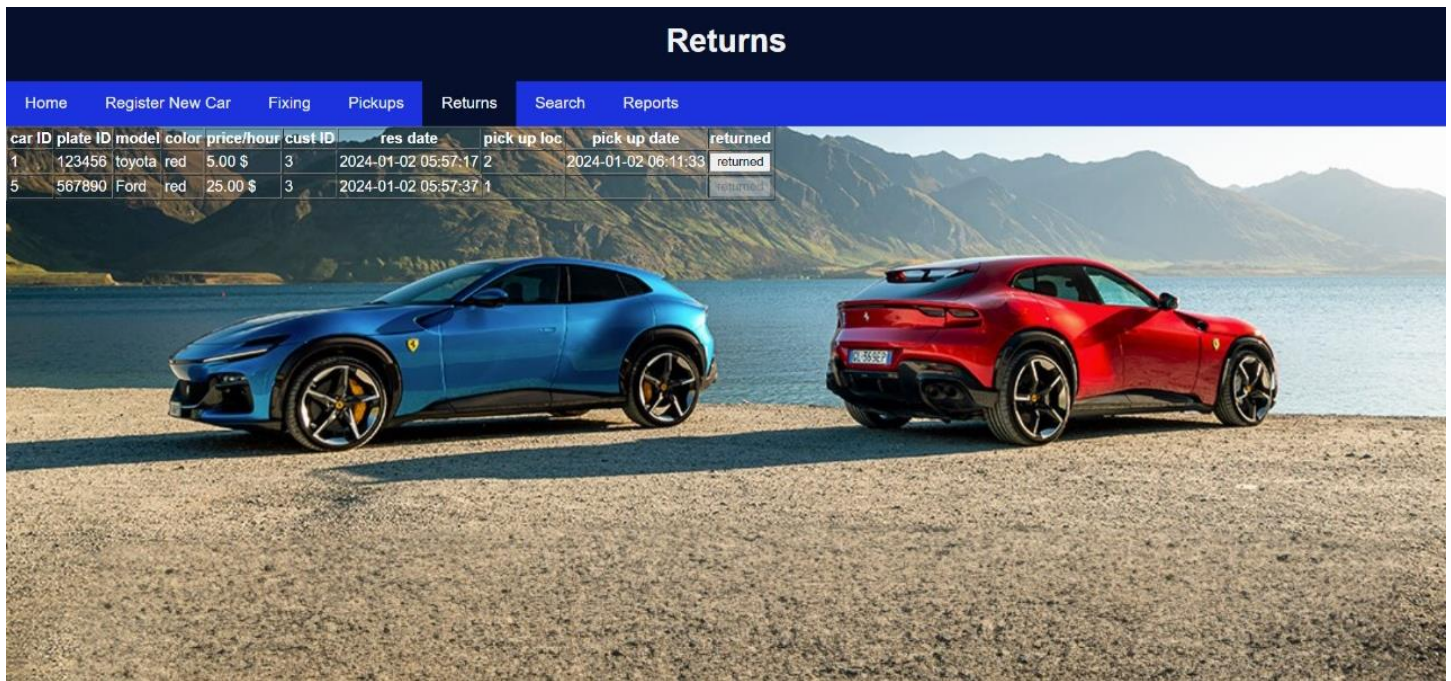
Basic report page :

- reports.php from report1.php to report5.php : making reports .

Basic Reports

1. Report All Reservations Within a Specified Period
Specify The Period
From mm/dd/yyyy To mm/dd/yyyy Display

2. Report All Reservations of a Car Within a Specified Period
Specify The Period
From mm/dd/yyyy To mm/dd/yyyy

Enter The Car Plate Id
Enter The Car Plate Id Display

3. Report The Status of All Cars
Display

4. Report All Reservations of a Specific Customer
Enter the Customer Id
Enter the Customer Id Display

5. Report Daily Payments Within a Specific Period
Specify The Period
From mm/dd/yyyy To mm/dd/yyyy Display

Advanced search :

- searching by car information , by customer information or by reservation day .