Car Rental Management System

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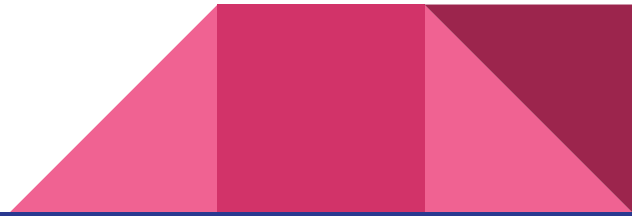


Problem Statement

- Car and bus travel agencies need an effective management platform for handling their respective transportation services. So, the current system needs to be computerized using website.

- The proposed car booking management system is web application.

- In case of car rental services, this sort of system stands out as trustworthy and reliable in the travel business.

OBJECTIVE

- To produce a web-based system that allow customer to register and reserve car online and for the company to effectively manage their car rental business.

- To ease customer’s task whenever they need to rent a car.

SDLC Model Used: **Iterative Enhancement**

- In the Iterative model, the iterative process starts with a simple implementation of a small set of the software requirements and iteratively enhances the evolving versions until the complete system is implemented and ready to be deployed.

- An iterative life cycle model does not attempt to start with a full specification of requirements. Instead, development begins by specifying and implementing just part of the software, which is then reviewed in order to identify further requirements. This process is then repeated, producing a new version of the software at the end of each iteration of the model.

Client Side Requirements

- **Processor**: Intel Dual Core
- **HDD**: Minimum 1GB Disk Space free
- **RAM**: Minimum 1GB
- **OS:** Windows 7, 8, 8.1, 10, Linux.
- **Browser**: Chrome Recommended.

Front-End Development

1. HTML
2. CSS
3. Bootstrap 5.0

Back-End Development

1. Node Js with express
2. EJS
3. MySQL

Assumptions

- Each center user has account created and authenticated by admin.
- Each user has to first login itself to present him/her after entry in franchisee and to rent a Car. No user can share their username and password to each other.
- Each booking is associated with only one car reservation at a time.
- Car available in the system should be present at some location.
- Once the car is returned it becomes available for the booking.
- Car price will be calculated based on the selected make and model.

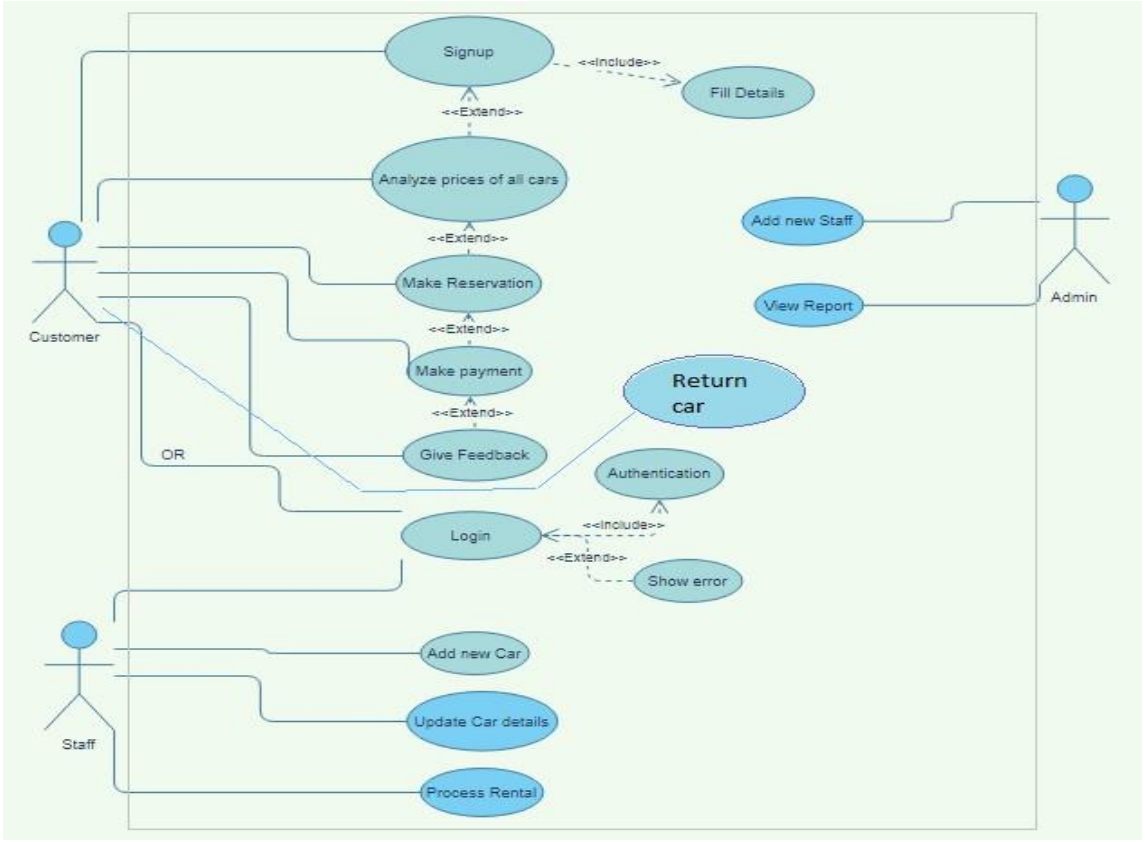
Functional Requirements

1. Registration
2. Log in
3. Cars
4. Rent

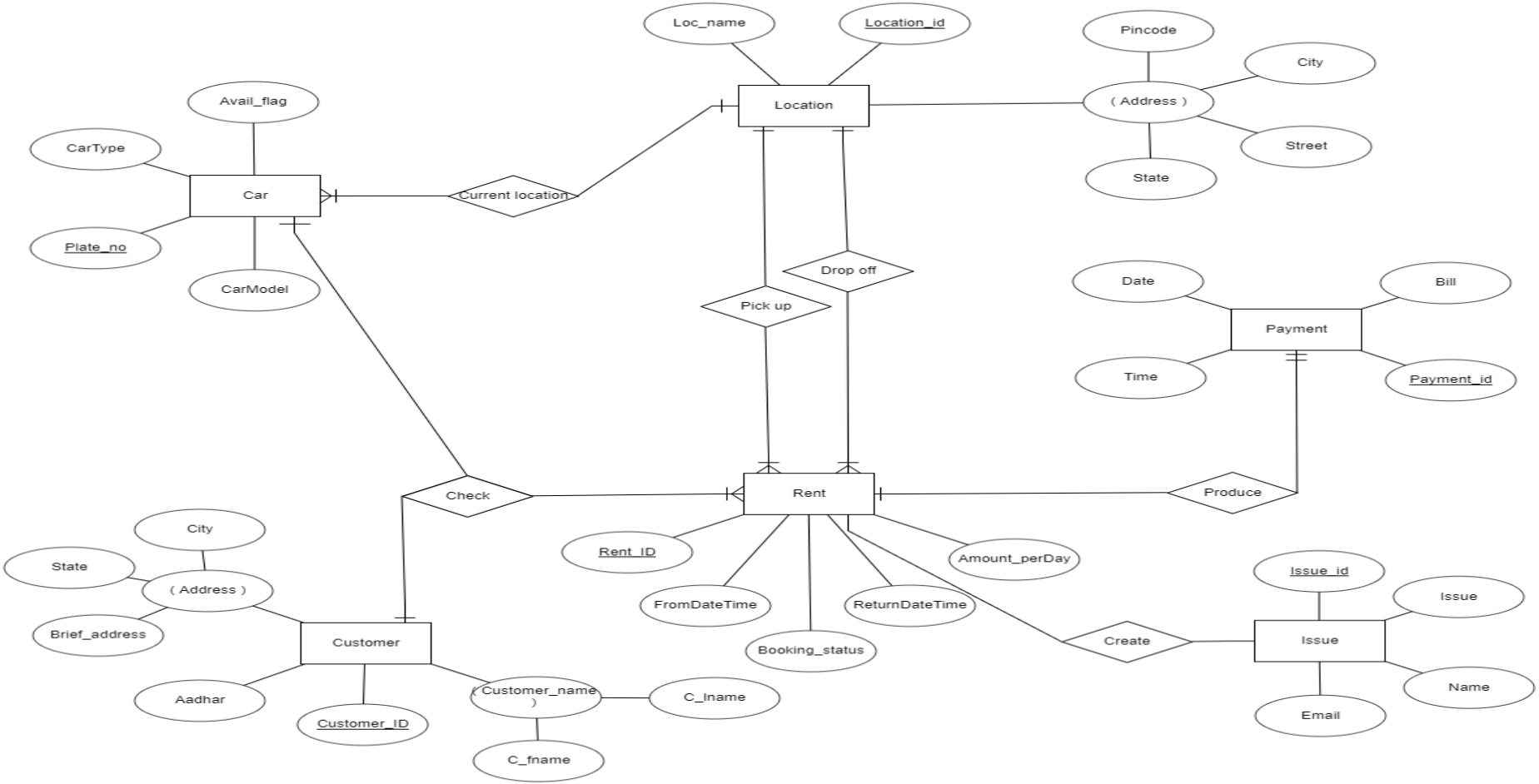
Non Functional Requirements

1. Usability
2. Security
3. Performance
4. Availability
5. Error Handling
6. Ease of Use

Use Case Diagram



ER Model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Location_id
Location
Pincode
City
(Address)
Street
State
Avail_flag
CarType
Car
Current location
Plate_no
CarModel
Drop off
Pick up
Date
Bill
Payment
Time
Payment_id
Check
Rent
Produce
City
State
(Address)
Brief_address
Customer
Aadhar
Customer_ID
(Customer_name)
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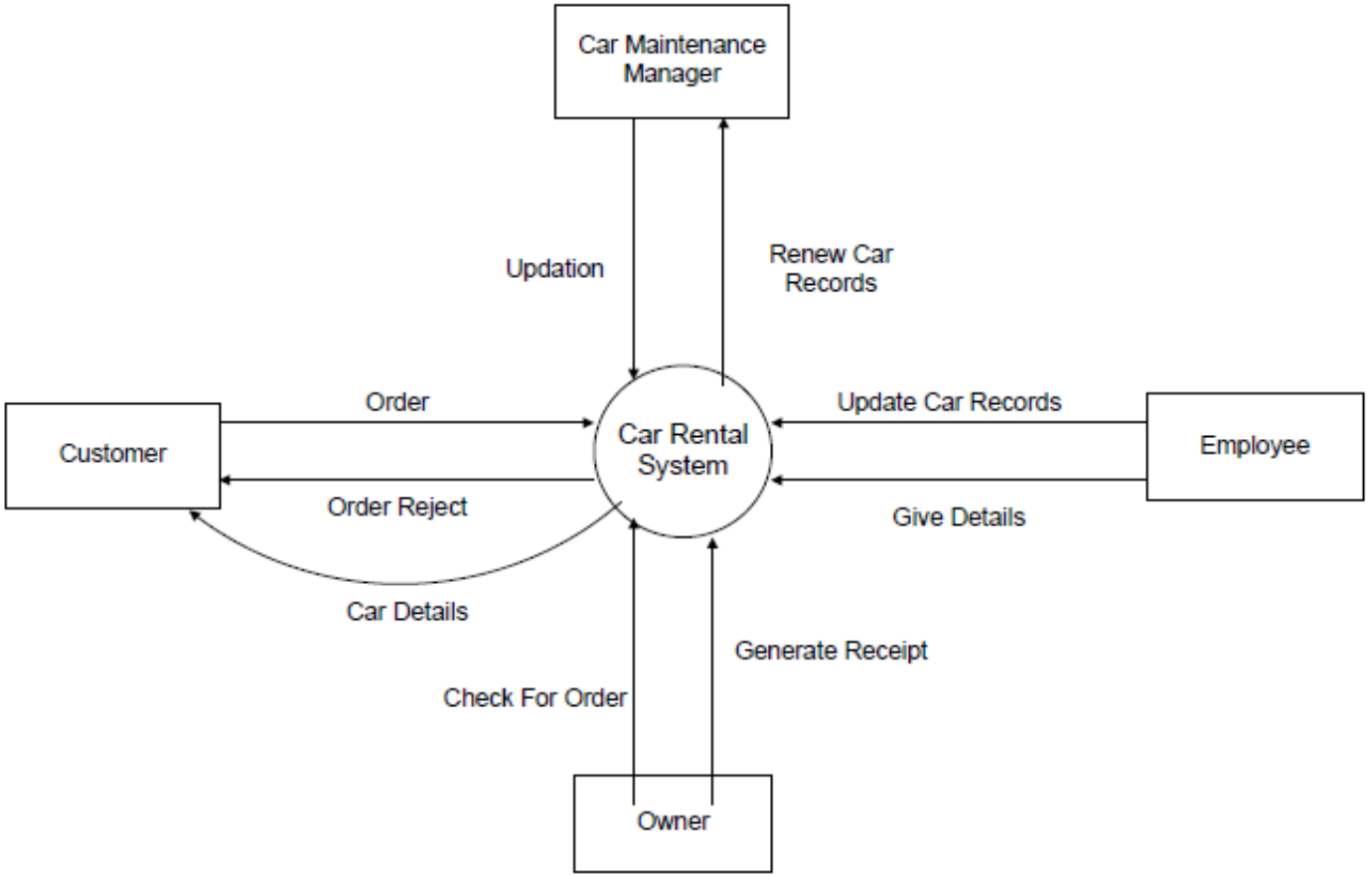
ReturnDateTime
Booking_status
Amount_perDay
Create
Issue_id
Issue
Issue
Name
Email

Data Flow Diagram

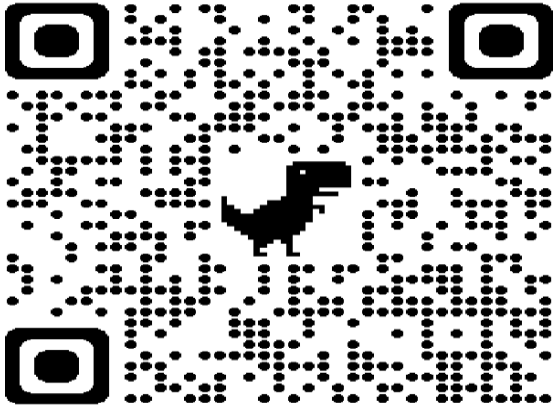


Conclusion

- Car rental business has emerged with a new goody compared to the past experience where every activity concerning car rental business is limited to a physical location only.
- Nowadays, customers can reserve cars online, rent car online, and have the car brought to their door step once the customer is a registered member or go to the office to pick the car.
- The web-based car rental system has offered an advantage to both customers as well as Car Rental Company to efficiently and effectively manage the business and satisfies customers' need at the click of a button.

QR Code of Website

https://calm-ravine-99748
.herokuapp.com/



Resources Attached

- GitHub Repository: https://github.com/Gaurav31200/Drift_Rental
- Website Link: https://calm-ravine-99748.herokuapp.com/
- Video Tutorial: https://drive.google.com/file/d/1wEETfQ12E1DwXwgddw7vsMcTmcsVrSRg/view?usp=sharing

Thank You!