Project of CAR\_ RENTAL\_MANAGEMENT\_SYSTEM

A Car rental management system (CRMS) is software application that society can use in renting cars at any time they want. And what this system can help those companies of renting cars is for managing customers, payments, reservations and also vehicle management of their cars.

Also this system can help for easy interaction between customer and car rental agencies for easy communication and that also improves high quality services.

Is not only that we said above , because this system insures the security of the vehicles because it’s information is already in the system.

Looking on it’s important to the society is not for travelling the society only also it creats some job opportunities like those drivers of those vehicles and also managers who manage that current compacustomer\_idny .

ENTITY RELATIONSHIP DIAGRAM(ERD)

CUSTOMERS

Customer\_id(PK)

Fname

Lname

Email

Phone

Address

VEHICLES

Vehicle\_id(PK)

Manufacture

Model

year

(1-M)

PAYMENTS

Payment\_id(PK)

Reservation\_id

Amount

Paymentdate

paymentmethod

RESERVATIONS

Reservation\_id(PK)

Customer-id

Vehicle\_id

Startdate

endDate

(M-M)

M-M)

LOGICAL DATA MODEL(LDM)

Vehicles(vehicle\_id, manufacture, model, year)

Customers(customer\_id, fname, lname, email, phone, address)

Reservations (reservation\_id, vehicle\_id, customer\_id, startdate, endDate)

Payments(payment\_id, reservation\_id, amount, paymentdate, paymentmethod)

PHYSICAL DATA MODEL(PDM)

PK

VEHICLES

Vehicle\_id

Manufacture

Model

year

PK

CUSTOMERS

Customer\_id

Fname

Lname

Email

Phone

Address

PK

FK

PAYMENTS

Payment\_id(PK)

Reservation\_id

Amount

Paymentdate

paymentmethod

RESERVATIONS

Reservation\_id(PK)

Customer-id

Vehicle\_id

Startdate

endDate

PK

FK

FK

DATA DICTIONARY

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ENTITIES** | **ATTRIBUTE** | **DATA TYPE** | **SIZE** | **CONSTRAINTS** | **DESCRIPTION** |
| **Customers** | customer\_id | INTEGERS | 11 | PRIMARY KEY not null | Customers identification number |
| fname | STRING | 20 | Null | First name |
| lname | STRING | 20 | Null | Last name |
| Email | STRING | 20 | Not null | Email |
| Phone | STRING | 20 | Not null | Phone |
| address | STRING | 20 | Not null | address |
| **Vehicles** | Vehicle\_id | INTEGERS | 11 | PRIMARY KEY not null | Vehicle identification number |
| manufacture | STRING | 20 | null | manufacture |
| model | STRING | 20 | null | Model |
| year | STRING | 20 | null | year |
| **Reservation** | Reservation\_id | INTERGERS | 20 | PRIMARY KEY not null | reservation identification number |
| Vehicle\_id | INTEGERS | 11 | Not null | Vehicle identification number |
| Customer\_id | INTEGERS | 11 | Not null | Customer identification number |
| startDate | DATE | 11 | Not null | Starting date |
| endDate | DATE | 11 | Not null | Ending date |
| **Payments** | Payment\_id | INTEGERS | 11 | PRIMARY KEY not null | PAYMENT identification number |
| Reservation\_id | INTERGERS | 11 | Not null | reservation identification number |
| amount | STRING | 20 | Not null | Amount to be paid |
| paymentdate | STRING | 20 | Not null | Date to pay |
| paymentmethod | STRING | 20 | Not null | Method used to pay |