

Report

Project for OOP programming course

Car Rental System:

A program that connect renter to a car and the service available from people to people. All the process are legal and safe. Here are some of the program functions :

- Owner can have more than one car registered in the system.
- The available cars should have an owner easily reached to.
- Display info of the owner and Renter by an override to the ***toString()*** method.
- inspector if the renter reached legal age to rent a car.
- the prices are fixed for the preferred type of cars and the needed days.
- Examine with the insurance company which companies are covered.
- Examine how many accidents and decide how much the insurance company can cover.

This program can develop to be used in applications to rent cars so if someone want to offer their car they know it will return in the same condition the renter took it and people will be more assured while using app like this because it's easier and safer to use a program that we can be sure of the person we rent from or giving to our properties and in case of complains it will be dealt with through the app without needing to contact with the owner of the car to handle the complaint and vice versa.

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Owner	
-fname : String	First name of the owner.
-lname : String	last name of the owner.
- email : String	Email of the owner.
- Phonenum : int	Phone number of the owner.
-nationalID : int	National ID of the owner.
- License : int	License number of the owner.
- Age : Int	Age of the owner.
-number : int	Return number to the array .
- Carlist : Car[]	Array of the cars that belong to the owner.
+ Owner()	No arg constructor.
+Owner(fname : String, lname : String ,email : String, Phonenum : int)	An args constructor
+getFname() : String	Returns the First name of the owner.
+getLname() : String	Returns the last name of the owner.
+getEmail() : String	Returns Email of the owner.
+getphonenum() : int	Returns the Phone number of the owner.
+getNationalID () :int	Returns the National ID of the owner.
+setFname(fname : String) : void	Returns the License number of the owner.
+SetLname(lname : String) : void	Returns the Age of the owner.
+SetEmail (email : String) :void	Sets the First name of the owner.
+SetPhonenum (phonenum : int) :void	Sets the last name of the owner.
+SetNationalID (natiionalID : int) : void	Sets Email of the owner.
+ SetLicense (license : int) : void	Sets the Phone number of the owner.
+SetAge(Age: int) : void	Sets the National ID of the owner.
+toString():String	Sets the License number of the owner.
+addCar():Void[]	Sets the Age of the owner.
	Display the info of the car.
	Method to add cars to the owner .

Car	
-company : String	the car company.
-name : String	the car name.
-mode : String	the car mode.
-price : double	the car price.
-year : int	the car year.
-seats : int	the car seats.
-number : int	the owner array number .
-ownersList:Owner[]	the array for the owner of the car .
+Car()	No arg constructor
+Car(name : String)	Arg constructor to the object name
+Car(company : String, name : String, year : int, seats : int)	Arg constructor to the object name ,company,year and seats
+Car(company : String, name : String, mode : String, price : double, year : int, seats : int, number : int)	Arg constructor to the object name ,company,year ,seats, mode and price
+getcompany() : String	Returns the car company.
+getName() : String	Returns the car name.
+getMode() : String	Returns the car mode.
+getPrice() : double	Returns the car price.
+getYear() : int	Returns the car year.
+getseats() : int	Returns the car seats.
+setCompany(company : String) : void	Returns the owner array number .
+SetName(name : String) : void	Returns the array for the owner of the car .
+SetMode(mode : String) :void	Sets the car company.
+SetPrice(price : double) :void	Sets the car name.
+SetYear(year : int) : void	Sets the car mode.
+SetSeats(seats :int) : void	Sets the car price.
+addOwner():void	Sets the car year.
+TypeList():String	Sets the car seats.
	Assign owner for the array .
	Disply arraylist for car compines the array for the owner of the car .

Renter

- age:int
- name:String
- lname:String
- email:String
- phonenum:int
- license:int
-nationalID:long

+Renter()
+Renter(age:int,name:String,lname:String, email:String
,phonenum:int, license:int, nationalID:long)
+getAge():int
+getName():String
+getLname():String
+getEmail():String
+getPhonenum():int
+getnationalID():long
+getLicense():int
+setAge(age:int):void
+setName(name:String):void
+setLname(lname:String):void
+setEmail(email:String):void
+setPhonenum(phonenum:int):void
+setNationalID(nationalID:long):void
+setLicense(license:int):void
+ValidAge():void
+toString():String
+rentPrice():void

Age of the Renter.

First name of the Renter.

last name of the Renter.

Email of the Renter.

Phone number of the Renter.

License number of the Renter.

National ID of the Renter.

No arg constructor.

An args constructor

Returns Age of the Renter.

Returns the First name of the Renter.

Returns the last name of the Renter.

Returns the Email of the Renter.

Returns the Phone number of the Renter.

Returns the License number of the Renter.

Returns the National ID of the Renter.

Sets the Age of the Renter.

Sets the First name of the Renter.

Sets the last name of the Renter.

Sets the Email of the Renter.

Sets the Phone number of the Renter.

Sets the National ID of the Renter.

Sets the License number of the Renter.

Check if the age for the renter if it was above 18.

Display info of the renter.

Returns the price for the wanted cars and days.

Insurance	
<ul style="list-style-type: none"> - name:String - model_of_car:String - date_of_rent:int - fees:int - dayscoverd:int 	<p>Name of the insurance company.</p> <p>Model of car that covered by the insurance company .</p> <p>Date of rent for the car .</p> <p>Fees of the system paid to get the car insurance coverage.</p> <p>Days coverd of the insurance.</p> <p>No arg constructor.</p>
<ul style="list-style-type: none"> +Insurance () +Insurance(name:String, model_of_car:String, date_of_rent:int, fees:int, dayscoverd:int) +getName() :String +getModel_of_car() :String +getDate_of_rent:int +getFees() :int +getDayscoverd() :int +setName(name:String) :void +setModel_of_car(Model_of_car):void +setDate_of_rent(date_of_rent:int) :void +setFees(fees:int) :void +setDayscoverd(dayscoverd:int):void +IsProvided(fees:int) :boolean +getCoverage() :double 	<p>Arg constructor for name, model_of_car, date_of_rent, fees and dayscoverd</p> <p>Return the Name of the insurance company.</p> <p>Return the Model of car that covered by the insurance company .</p> <p>Return the Date of rent for the car .</p> <p>Return the Fees of the rental system paid to get the car insurance coverage.</p> <p>Return the Days coverd of the insurance.</p> <p>Sets the Name of the insurance company.</p> <p>Sets the Model of car that covered by the insurance company .</p> <p>Sets the Date of rent for the car .</p> <p>Sets the Days coverd of the insurance.</p> <p>Sets the Fees of the rental system paid to get the car insurance coverage.</p> <p>Checking the compines that are coverd in the insurance .</p> <p>Calculating how much does the insurance company for the accidents .</p>

