



**CourseName:** Software Engineering I

Course Code: CS251

**TA**:Manar El Kady

**<u>ProjectName</u>**: Automated Garage System

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#### **Team**

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### **Document Purpose and Audience**

- This document will talk about the design of the system ( Automated Garage System ) and subsystems included describing ( UML Diagram of Classes Sequence Diagram Entity Relation Diagram In Addition To Adding Basics Ideas About Gui Being Used In System ).
- Audience: CEO Project Manager Developers Analyst.

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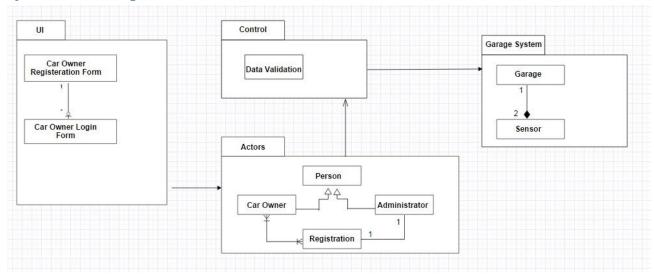




## **Software Design Specification**

### **System Models**

#### **System Decomposition**



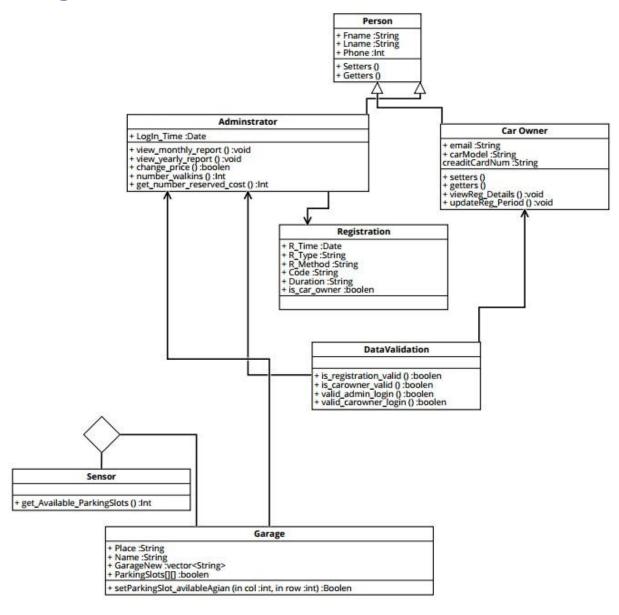
This system decomposition is consist of 4 packages , the first one is the UI package which inlude the two classes : car owner regestration form and car owner login form where the relation between two classes is one to many and the second package is the actor package which consist of 4 classes { Car Owner , Administrator which in inherits from Person class and the registration } and the relation between administrator class and the administrator class is one to one and the relation between car owner class and the registration class is many to many , the third package is the control which contain data validation class and the fourth package is the Garage System which include w classes Garage and Sensor where there is a composition relation between these classes and we have one garage and two sensors in our system .







### **Class diagrams:**





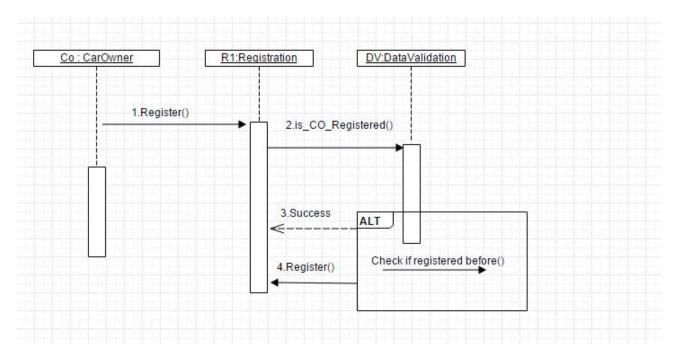




Class ID	Class Name	Subsystem ID	Description
1	Car Owner Registeration Form	1	Form For Car Owner To Register
2	Car Owner Login Form	1	Form For Car Owner To Login
3	Data Validation	2	Class To Check Values On Data Base.
5	Person	3	Parent Class Of Car Owner & Administrator
6	Administrator	3	Class Which Include Administrator Function
7	Car Owner	3	Class Which Include Car Owner Function
8	Garage	4	Class Describe System Garage Building Componets And Role .
9	Sensor	4	Class Which Is The Main Security Componet In The System

### **Sequence diagrams**

Sequence Diagram ID: 1



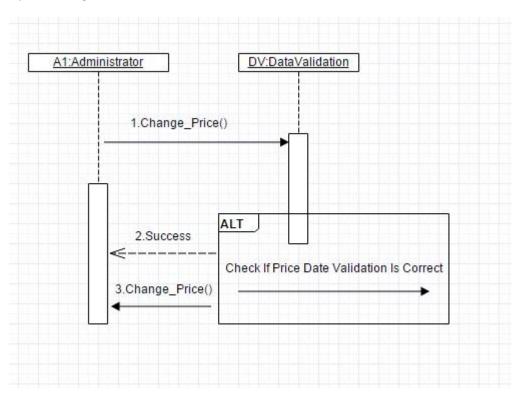
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## **Software Design Specification**

Squence Diagram ID: 2



**Class - Sequence Usage** 

Class Name	Sequence Diagrams	Overall used methods
Regitstartion	1	Is_Car_Owner_Registered ,
Administration	2	CheckDBPrice , Change_Price

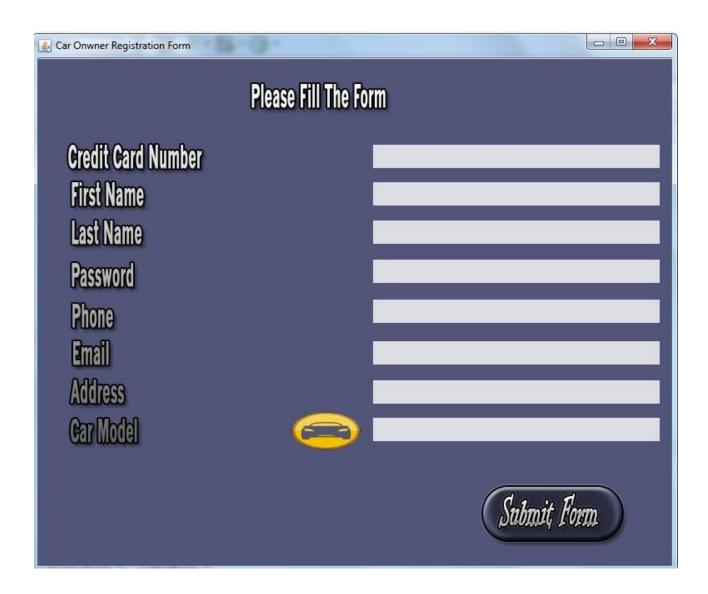






### **User Interface Design**

Screen 1 - Car Owner Registration Screen





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## **Software Design Specification**

Screen 2 - Car Owner Login Screen



### **Ownership Report**

Item	Owners
User Interface , Class Uml	Mohammed Shaker
System Decomposition , Sequence Diagram	Mohammed Boghdady
Class Uml , User Interface	Mohammed Ahmed Hamdy
System Decomposition , Sequence Diagram	Mohammed Gaber