Cairo University  
Faculty of Computers and Artificial Intelligent

**CS251**

**Software Engineering I**

Project Name

Software Design

Team Names

Jun-2022

Contents

[Team 3](#_Toc102938452)

[Document Purpose and Audience 3](#_Toc102938453)

[System Models 4](#_Toc102938454)

[I. Class diagrams 4](#_Toc102938455)

[II. Sequence diagrams 6](#_Toc102938456)

[Class - Sequence Usage Table 8](#_Toc102938457)

[Ownership Report 9](#_Toc102938458)

# Team

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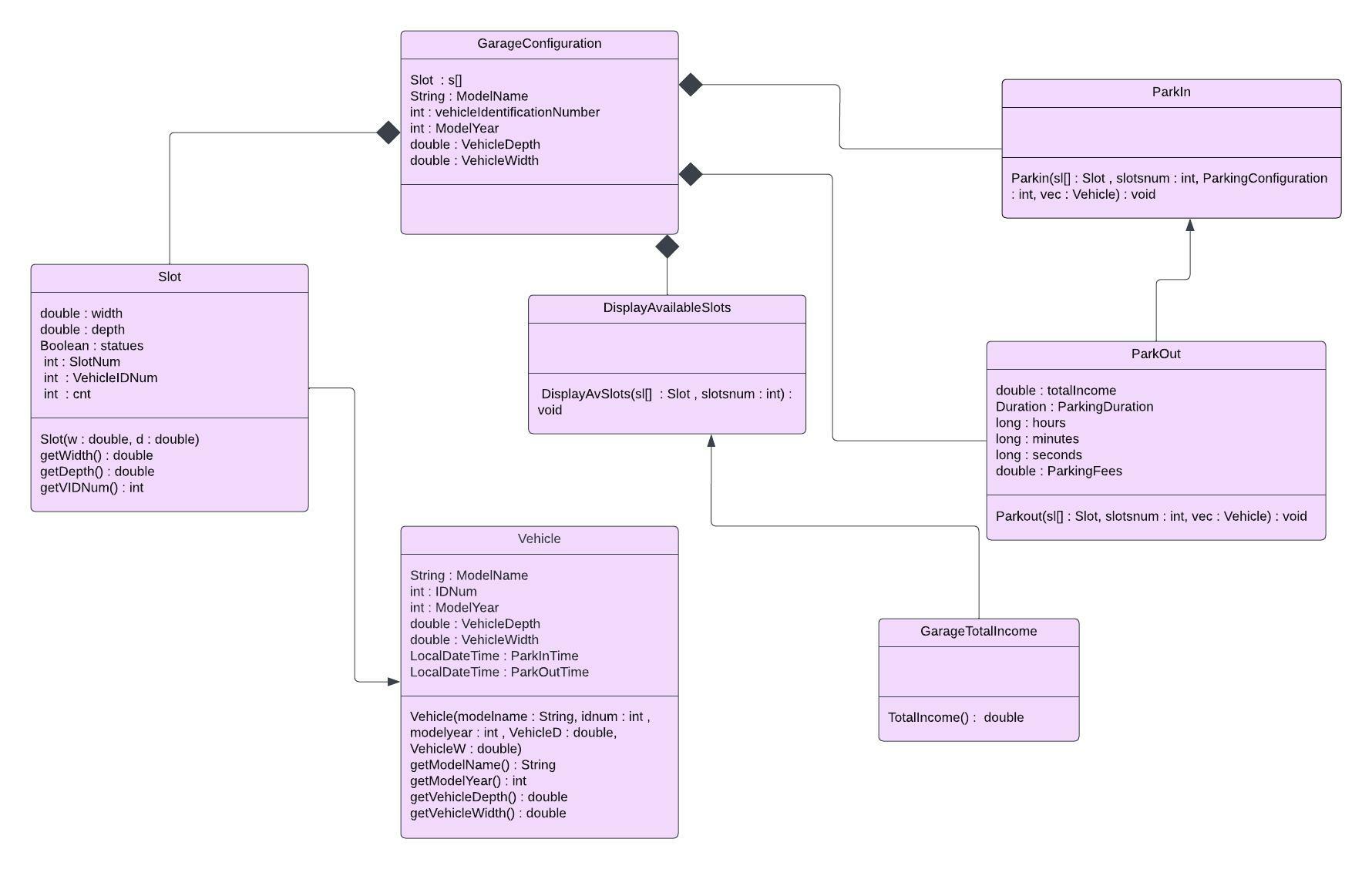
# Document Purpose and Audience

* **Document purpose: This document is a clarification about everything about the application and provide every step in building the application.**
* **Document audience: Subject’s professor and TA.**

# 

# System Models

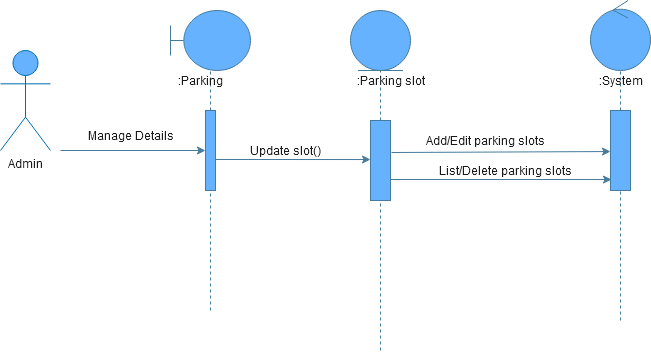
## I. Class diagrams



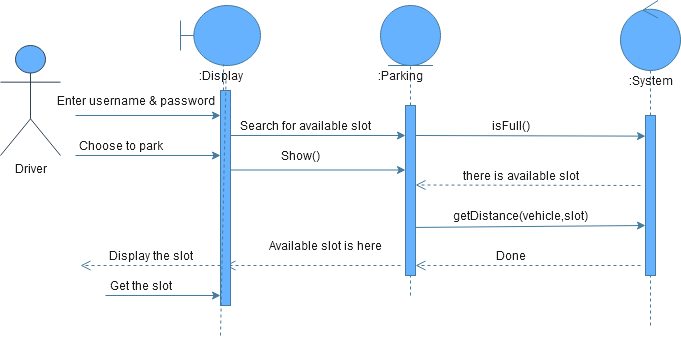
|  |  |  |
| --- | --- | --- |
| Class ID | Class Name | Description & Responsibility |
| 1 | Garage Configuration | This main part of the application which is designed, it contains all the information related to the garage . |
| 2 | Vehicle | Contains all vehicle specifications (model, identification, Model Year, dimensions, color). Vehicles will be parked in the parking spaces. |
| 3 | Slot | Each parking lot will have a parking space. |
| 4 | Park In | that marks the arrival time of a vehicle if there is an available slot . |
| 5 | Park Out | Calculate the total income and the time of exit of the vehicle. |
| 6 | Display Available Slots | Display the available parking slots. |
| 7 | Garage TotalIncome | Calculate the total income |

## II. Sequence diagrams

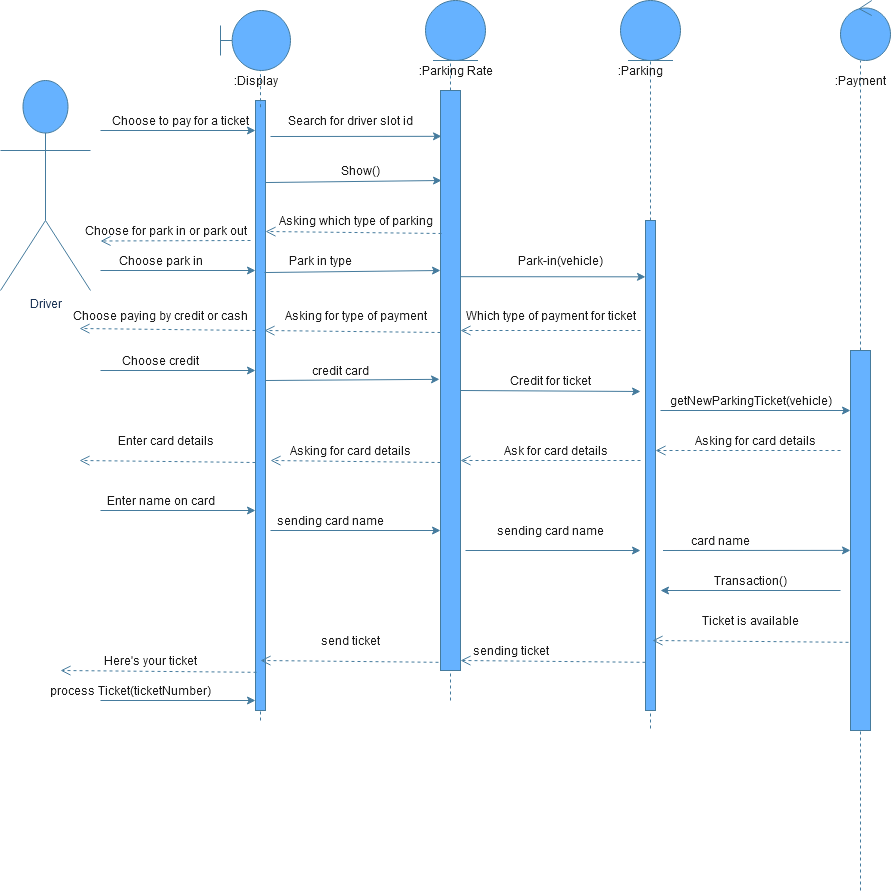
SequenceID:1



SequenceID:2



SequenceID:3



### 

| **Class Name** | **Sequence Diagrams** | **Overall used methods** |
| --- | --- | --- |
| Parking | 1, 2 ,3 | isFull, getDistance,updateSlot,getNewParkingTicket |
| Parking slot | 1 | None |
| Display | 2,3 | Show |
| Parking Rate | 3 | Park-in |
| Payment | 3 | Transaction |

### Class - Sequence Usage Table

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# Ownership Report

|  |  |
| --- | --- |
| **Item** | **Owners** |
| Document Purpose and Audience | *Mahmoud Abdelrady Gadelrab* |
| Class diagrams - List classes | *Hayat Nasser Saeed* |
| Sequence diagrams - Sequence Usage Table | *Hanen Mohamed Ewiss* |