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| CLIENT | Automotive Company |
| USER | Company employees |
| FUNCTIONAL REQUIREMENTS | R1. Register a vehicle  R2. Calculate sell price  R3. Show vehicles’ information  R4. Show vehicles’ documents  R5. Show parking map  R6. Show parking information |
| PROBLEM | The client needs a program to register and control the information of the vehicles (automobiles or motorcycles) that are in the concessionaire. |



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| NAME | R1. Register a vehicle | | |
| SUMMARY | Vehicles can be registered with their general information | | |
| INPUTS | Name | Type | Selection condition |
| basePrice | double | Every time a vehicle is registered |
| brand | String |
| model | int |
| mileage | double |
| type | int |
| plate | String |
| displacement | double |
| carType | int | If an automobile is registered |
| doorNumb | int |
| isPolarized | int |
| capacity | double | If a motorcycle, gas or hybrid car is registered |
| chargerType | int | If an electric car is registered |
| duration | double |
| gasType | int | If a gas car is registered |
| cycleType | int | If a motorcycle is registered |
| RESULT | Vehicle is created and registered in the ArrayList (and in the parking if it meets the conditions and there is space) | | |
| OUTPUTS | Name | Type | Selection condition |
| Confirmation of registration | String | If the registration was successful |



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| NAME | R2. Calculate sale price | | |
| SUMMARY | The sale price of the vehicle can be calculate based on its type and the validity of the documents. | | |
| INPUTS | Name | Type | Selection condition |
| plate | String | Every time a sale price is calculated |
| RESULT | If the plate is registered the price of the vehicle is calculated and return as an String | | |
| OUTPUTS | Name | Type | Selection condition |
| Sale price of the vehicle | String | If the plate is registered |

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| NAME | R3. Show vehicles’ information | | |
| SUMMARY | The information of all vehicles in a certain classification is shown in a list | | |
| INPUTS | Name | Type | Selection condition |
| vehicleType | int | If the classification is the vehicle type |
| fuelType | int | If the classification is the fuel type |
| newOrUsed | int | If the classification is the condition of the vehicle |
| RESULT | The String list is created with the selected type of vehicles | | |
| OUTPUTS | Name | Type | Selection condition |
| List of the vehicles | String | If there are vehicles that meet the given condition |

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| NAME | R4. Show vehicles’ documents | | |
| SUMMARY | A vehicle’s documents can be shown with the current status and decoded number | | |
| INPUTS | Name | Type | Selection condition |
| plate | String | Every time the documents are required |
| RESULT | If the plate is registered the documents information is gather in a String | | |
| OUTPUTS | Name | Type | Selection condition |
| Documents information | String | If the plate is registered and the vehicle has at least one document |

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| NAME | R5. Show parking map | | |
| SUMMARY | The map with the location of the vehicles in the parking can be shown | | |
| RESULT | The parking matrix is turned into a String | | |
| OUTPUTS | Name | Type | Selection condition |
| Drawing of the parking | String | Every time the map is requested |

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| NAME | R6. Show parking information | | |
| SUMMARY | The information of the parking and vehicles that meet certain conditions can be shown | | |
| INPUTS | Name | Type | Selection condition |
| firstYear | int | If the range of years option is selected |
|  | secondYear | int |
| RESULT | A String with a list of the vehicles information is created | | |
| OUTPUTS | Name | Type | Selection condition |
| List of the vehicles | String | If at least one vehicle meets the given condition |
| Percentage of occupation | String | If the occupation option is selected |