**ANALISIS**

The problem lies in the creation of a software for a multinational automotive company, for this we have to comply with the following functionalities:

1. R1: Register vehicles (new or used) for sale.

2. R2: Calculate the total sale price of a vehicle, but this mechanism will vary according to the type of vehicle. If the vehicle has expired documentation (that is, within the documents associated with the vehicle there is no SOAT and certificate of mechanical technical review for the current year) an additional $500,000 must be charged. Electric cars cost an additional 20% of their base price, hybrids 15%, and gasoline cars do not change at all. If the car is used, it has a 10% discount. Motorcycles, due to the high demand they have in the country, have an additional cost of 4%, if they are used they have a 2% discount. To the calculations already mentioned, the dealer can discount an additional percentage.

3. R3: Generate reports with all vehicle data (including the total sale price) according to the following criteria:

0. Vehicle type

1. Fuel type

2. New/used cars

4. R4: Given the id of a vehicle, the status of its documents must be shown and a list must be generated with the SOAT numbers, mechanical technical revision and property card (if it has one)

5. R5: Generate a map of the parking lot that allows identifying empty and occupied spaces.

6. R:6 Generate parking lot occupancy reports according to the following criteria:

0. List of vehicles (and their information) given a range of years.

1. Data of the oldest and newest vehicle.

2. Percentage of occupation of the parking lot.

**TABLA DE ANALISIS DE REQUERIMIENTOS FUNCIONALES**

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| --- | --- | --- | --- |
| NOMBRE O IDENTIFICADOR | R1: Register vehicles. | | |
| RESUMEN | The system must allow the registration of vehicles for sale. | | |
| ENTRADAS | Nombre de entrada | Tipo de dato | Condición de selección o repetición |
| basePrice | Double | El precio que se le asigne tiene que ser mayor a 0 (positivo). |
| salePrice | Double |
| mark | String |  |
| model | String |  |
| cylinderCapacity | Double | El cilindraje tiene que ser mayor a 0 (positivo). |
| mileage | Double |  |
| isNew | Boolean |  |
|  | documents[] | Array |  |
| RESULTADO O POSTCONDICIÓN | The system will store the registered vehicle. | | |
| SALIDAS | Nombre de salida | Tipo de dato | Condición de selección o repetición |
| out | String |  |
|  |  |  |
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