

Requirements for the Car Rental System

Let's have a look at the requirements for our car rental system.

We'll cover the following

- Requirement collection

In this lesson, we'll determine the requirements of our car rental system. This is a very crucial step as requirements define the scope of a problem, so getting them right from the interviewer and understanding them well will make the design of the rest of the system smooth and easy.

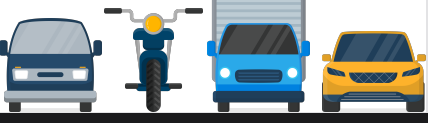
We'll use the notational convention to identify each requirement with a unique label "Rn", where "R" is short for Requirement and "n" is a natural number.

Requirement collection

The set of requirements for the car rental system are listed below:

R1: There can be two types of users in the car rental system, i.e., customers and receptionists.

R2: The system should handle multiple types of vehicles. Initially, the system should cater to the following vehicles: cars, trucks, vans, and motorcycles.



R3: There can be multiple subtypes for vehicles. The car type can be economy, luxury, standard, and compact. The van type can be passenger or cargo. Moreover, the motorcycle type can be cruiser, touring, or sports. The truck type can be light, medium, or high-duty.

R4: The system should be able to keep a record of who reserved a particular vehicle and on which date the vehicle was issued.

R5: The system should be able to find out how many vehicles have been rented out by the specific customer.

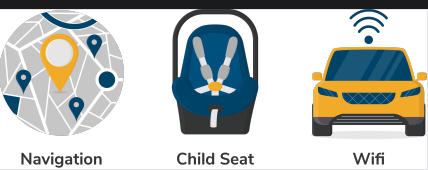
R6: The customers should be able to cancel their reservations.

R7: To keep track of all events related to the vehicle, the system should maintain a vehicle log.



R8: The system should allow the users to add equipment to the reservations like a ski rack, child seat, and navigation.

R9: The system should allow the users to add services to the reservations like a driver, Wi-Fi, and roadside assistance.

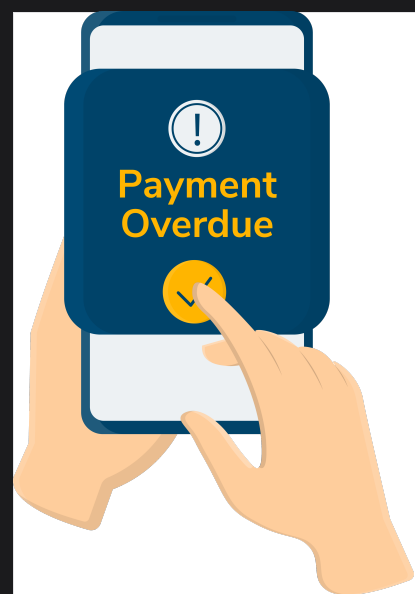


R10: The system should send a notification to the customer and generate a fine if the vehicle is not returned within the due date.

R11: The system should allow the user to search the vehicles by type or model.

R12: A system should be able to manage the multiple branches of the car rental system.

R13: Every branch of the car rental system should have parking stalls to park the vehicles.



We've identified our requirements for the problem. In the next lesson, we'll define different use cases of our car rental system.