

## Problem Statement

A car rental company needs a car rental application that allows them to manage rentals, customers, and car reservations. The application should provide the ability to add, delete, and search rentals. Each rental should include customer information, such as the customer's name, phone number, email address, and address details (street, city, and zip code). Additionally, the rental should track the start date, maximum duration, and end date of the rental. The application should also support the functionality of reserving cars. When reserving a car, the application should record the date of the reservation. To account for multiple cars of the same type, the application should allow for maintaining a quantity of available cars for each car type.

The car rental application aims to streamline the rental process for the company by providing efficient management of rentals, customers, reservations, and available cars. The application should allow the company to easily add new rentals, delete existing rentals, and search for specific rentals based on different criteria. The customer details stored in each rental will enable effective communication and tracking of customer information. Additionally, the application should support the reservation of cars, allowing the company to record the reservation date for each reservation made. The ability to handle multiple cars of the same type will ensure accurate tracking of car availability and allow the company to effectively manage their fleet. Overall, the car rental application will enhance the company's operations, improve customer service, and provide better control and visibility into their rental business.