

# Coding Home Assignment - Car Rental - Template

## Overview

The assignment is to plan (and design) and implement a car-rental module for a car rental company.

## Functionality Requirements

- The system should allow the user to look for available cars and view car rent details
- The system should also allow back office agents to add new cars to the catalog
- Available rentals are searchable by combination of dates, locations, drivers' age group and car group
- Each Car rental consist of car description, available extras, price, discounts and minimum driver age
- Each new car rental should include car details, available dates, available locations, and minimum driver age per location.

## Outcome

1. Identify components
2. Define responsibility for each component
3. Design interface (API for each component)
4. Implement the design as the full functional REST Apis
  - a. Add a listing to the catalog
  - b. Remove Car listing from the catalog
  - c. Update car listing in the catalog
  - d. Search for available cars by given criteria

## Guidelines

- You can use any 3rd part libraries, package
- Consider sync VS async transports (e.g. http, amqp, grpc)
- Consider concurrency
- Consider Scale & Performance
- Technology allowed: GOLang / .Net / NodeJS
- No need to connect to real DB or live third-party systems, use in-memory mocks.
- Implement unit tests
- Implement a sample client app using the REST APIs.