PROBLEM STATEMENT

Requirements we'll evaluate:

1. Design a good architecture to present your solution.
2. Make good use of version control tools (like Git for GitHub) when presenting your solution.
3. Keep it simple, you won't need to over decorate your solution.
4. Production quality and maintainable code.
5. Follow the practices for good object oriented design and its patterns.
6. The solution must be idiomatic according to the language you've chosen to present your solution. (Use the programming language you feel most proficient with)
7. Well tested code, using Test Driven Development practices.

Exercise:

This is a car renting business.

- Classify by type of car (small, sport, SUV) and set a price depending on the type of car (40USD/day for small cars, 60USD/day for sport cars, 100USD/day for SUV cars).
- Allow for a discount on weekdays (10%).
- Allow for a discount for number of rental days (3 or more).
    - For 3 to 5 days 5%.
    - For 6 to 10 days 10%
    - 11 or more 15%
- Differentiate price for people subscribed to a membership plan (5%).
- Generate an insurance policy and differentiate its price for people younger than 25 years old. (5USD a day for the small car, 7USD a day for the sport car, 10USD a day for the SUV with a 25% increase for younger people). No discount applies over the insurance total.
- Make sure that the person renting the car is at least 18 years old.

Right now the business has the following available cars

- Model: Dwarfy, Type: Small car
- Model: Halfing, Type: Small car
- Model: Eveo, Type: Sport car
- Model: Cherato, Type: Sport car
- Model: Vitoro, Type: SUV
- Model: Exploring, Type: SUV

The sample input will be in JSON format including these keys:

- "{"rentDates":["2017-11-19T05:00:00.000Z","2017-11-20T05:00:00.000Z","2017-11-21T05:00:00.000Z"],"car":{"model":"Cherato","type":"sport"},"membership":false,"age":24}"

The expected output must be in JSON format including these keys:

- "{"subtotal":350,"insuranceTotal":53,"discountPercentage":22.5,"totalPayment":324.25}"