

Rules of the Test

1. You have **three full days** to implement a solution.
2. We are really, really interested in your functional design skills, so please craft the most beautiful code you can.
3. We're also interested in understanding how you make assumptions when building software. If a particular workflow or boundary condition is not defined in the problem statement below, what you do is your choice.
4. You have to solve the problem in **NodeJs** or **TypeScript** language with **any database**. Your solution must build+run on **Docker**.
5. Please use **Git** for version control. We expect you to send us a **git link** or **standard zip** or **tarball** of your source code when you're done that includes Git metadata (the `.git` folder), so we can look at your commit logs and understand how your solution evolved and a **README.md with clear instructions**.
6. Please write comprehensive unit tests/specs. For solutions, it's a **huge plus if you test drive your code**. Submitting your solution with only a functional suite will result in a rejection.

Problem Statement

I own a parking lot that can hold up to 'n' cars at any given point in time. I want to create an automated ticketing system that allows my customers to use my parking lot without human intervention.

When a car enters my parking lot, I want to have a ticket issued to the driver. The ticket information contains the registration number (number plate) and the car size and allocated parking slot (we assume that our customers are nice enough to always park in the slots allocated to them). The customer should be allocated a parking slot which is nearest to the entry. At the exit the customer returns the ticket which then marks the slot they were using as being available.

Design API and Maintain the state of the parking lot systems. The car info has only plate number and size (small, medium, large).

- 1) It should provide us with api to create parking lot
- 2) It should provide us with api to park the car
- 3) It should provide us with api to leave the slot
- 4) It should provide us with api to get status of parking lot
- 5) It should provide us with api to get registration plate number list by car size
- 6) It should provide us with api to get registration allocated slot number list by car size
- 7) If you have any idea to complete the api, feel free to add more