

JS Advanced - Retake Exam

Exam problems for the [“JavaScript Advanced” course @ SoftUni](#). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/Practice/Index/1624#1>.

Problem 2. Auto Service

Use the provided **AutoService** class to solve this problem.

Your Task

Using **Mocha** and **Chai** write **unit tests** to test the entire functionality of the **AutoService** class. Make sure instances of it have all the required functionality and validation. You may use the following code as a template:

```
describe("Tests ...", function() {
  describe("TODO ...", function() {
    it("TODO ...", function() {
      // TODO: ...
    });
  });
});
// TODO: ...
});
```

Functionality

The code inside the **autoService.js** file defines a class that contains information about an auto service. An instance of the class should support the following operations:

- **Instantiation** with **one parameter** - a **number** that represents the auto service **garage capacity** (how many cars they can fit at the same time in the garage).
 - Contains **two additional properties** (**workInProgress**, **backlogWork**), which by **default** must be set to **empty arrays**.
- Accessor **availableSpace** - which **returns a number** that represents the **available space/capacity** in the auto service garage (how many cars more they can fit in the garage).
- Function **signupForReview(clientName, plateNumber, carInfo)** - registers a client for review. Receives **3 arguments**:
 - **clientName** - string ('Peter')
 - **plateNumber** - string ('CA1234CA')
 - **carInfo** - object ({'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken'})

If there is an **available space** in the garage, the current client is registered in the **workInProgress** array. Otherwise is registered in the **backlogWork** array.

- Function **carInfo(clientName, plateNumber)** - checks information about client. Receives **2 arguments**. Checks if the given information **exists** in **workInProgress** or **backlogWork** array and returns the client information (**object**) if any.

- Function **repairCar()** - get the **first available** (signed up for review) **car** from **workInProgress** array. If there are no cars (**workInProgress** is empty) the second array (**backlogWork**) is checked for client (car). The function receives **no arguments**.
 - If the first available client's **carInfo** (object) has **broken parts** (the current **carInfo** has no keys with values that refer to "**broken**"), a message with all repaired parts is shown and the current client is removed from the collection.
 - If there are **no parts to be repaired** (the current **carInfo** has no keys with values that refer to "**broken**") or there are **no clients in both arrays** the corresponding message must be shown.

Submission

Submit your tests inside a **describe()** statement, as shown above.

Examples

This is an example how this code is **intended to be used**:

Sample code usage
<pre>let autoService = new AutoService(2); autoService.signUpForReview('Peter', 'CA1234CA', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken'}); autoService.signUpForReview('Peter', 'CA1234CA', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken', 'wheels': 'broken', 'tires': 'broken'}); autoService.signUpForReview('Philip', 'PB4321PB', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'exhaustPipe': 'REMUS'}); console.log(autoService.repairCar()); console.log(autoService.carInfo('PB9999PB', 'PHILIP')); console.log(autoService.availableSpace);</pre>
Corresponding output
<p>Your doors were repaired.</p> <p>There is no car with platenumber PB9999PB and owner PHILIP.</p> <p>1</p>